



Transactions of the
London & Middlesex
Archaeological Society

incorporating the
Middlesex Local History Council

Volume 26

1975

Bishopsgate Institute, Bishopsgate, London E.C.2

Hon. Editor:

Lawrence S. Snell, M.A., F.S.A., F.R.Hist.S., F.R.S.A.

NEWMAN COLLEGE

Bartley Green

Birmingham B32 3NT

Telephone: 021-476 1181 (College) 021-472 2588 (Home)

Assistant Editor:

Hugh Chapman, B.A., A.M.A.

c/o Museum of London

Kensington Palace, London, W.8

Telephone 01-937 9816

or Home: 17 Crystal Palace Road,

East Dulwich, London, S.E. 22

Telephone: 01-693 1728

Editors' Note:

The Editors will be glad to consider papers for publication. New contributors should obtain a copy of 'Notes for Contributors' from the Editor before submitting a paper.



LAMAS LIBRARY
REFERENCE ONLY

Transactions of the
London & Middlesex
Archaeological Society

incorporating the
Middlesex Local History Council

Volume 26

1975

Bishopsgate Institute, Bishopsgate, London E.C.2

London & Middlesex Archaeological Society

incorporating Middlesex Local History Council

ESTABLISHED IN 1855

Patrons:

THE MOST REV. THE ARCHBISHOP OF CANTERBURY
THE RIGHT REV. THE BISHOP OF LONDON
THE RIGHT HON. THE LORD MAYOR OF LONDON
H.M. LIEUTENANT FOR GREATER LONDON AND CUSTOS ROTULORUM
H.M. ASSISTANT LIEUTENANT FOR THE MIDDLESEX AREA OF GREATER LONDON
THE VERY REV. THE DEAN OF ST. PAUL'S

President:

RALPH MERRIFIELD, B.A., F.S.A., F.M.A.

Past Presidents:

PROFESSOR W. F. GRIMES, C.B.E., D.LITT., M.A., F.S.A., F.M.A. (1950-1958)
D. B. HARDEN, C.B.E., M.A., PH.D., F.S.A., F.M.A. (1959-1964)
R. MICHAEL ROBBINS, M.A., F.S.A. (1965-1970)
ARNOLD J. TAYLOR, C.B.E., M.A., D.LITT., F.B.A., PRES. S.A., F.R.HIST.S. (1971-1973)

Vice-Presidents:

SIR MORTIMER WHEELER, C.H., C.I.E., M.C., T.D., M.A., D.LIT., D.LITT., F.B.A., F.S.A., F.M.A.
LAWRENCE E. TANNER, C.V.O., M.A., LITT.D., F.S.A. ARTHUR H. HALL, F.S.A., F.L.A.
MISS E. D. MERCER, B.A., F.S.A. S. W. HOWARD, M.C., F.I.B.
W. J. SMITH, M.A., F.R.HIST.S.

Trustees:

BARCLAYS NOMINEES (BRANCHES) LTD.

Bankers:

BARCLAYS BANK LTD.
(Cocks, Biddulph Branch)

Council:

W. J. SMITH, M.A., F.R.HIST.S. (Chairman)
S. W. HOWARD, M.C., F.I.B. (Deputy Chairman)

Ex-Officio: The Officers mentioned in Rule 9

K. BAILEY, M.A., F.R.G.S.
MRS. C. M. BARRON, M.A., PH.D., F.S.A., F.R.HIST.S.
V. R. BELCHER, M.A.
MRS. J. L. BIRD
B. J. BLOICE
J. CLARK, M.A., A.M.A.
G. J. DAWSON, B.A., PH.D.

N. M. D. FARRANT
C. H. J. FARTHING, O.B.E., B.A., F.S.A.
M. G. HEBDITCH, M.A., F.S.A., F.M.A.
J. D. LEE, F.L.A.
D. O. PAM, F.L.A.
K. R. WHITEHOUSE

Editorial Advisory Committee:

Ex-Officio:

R. MERRIFIELD, B.A., F.S.A., F.M.A.

W. J. SMITH, M.A., F.R.Hist.S.
(*Chairman of Council*)

ERIC E. F. SMITH, F.S.A.
(*Hon. Secretary*)

A. TRIBE, F.C.A., A.T.I.I.
(*Hon. Treasurer*)

LAWRENCE S. SNELL, M.A., F.S.A.,
F.R.Hist.S., F.R.S.A. (*Hon. Editor*)

HUGH CHAPMAN, B.A., A.M.A.
(*Assistant Editor*)

Appointed by Council:

N. M. FARRANT

S. W. HOWARD, M.C., F.I.B.

J. D. LEE, F.L.A.

S. N. P. MARKS, M.A.

Archaeological Research Committee:

Chairman: R. MERRIFIELD, B.A., F.S.A., F.M.A.

Secretary: H. L. SHELDON, B.Sc., 108A Great Guildford Street, S.E.1

Historic Buildings and Conservation Committee:

Chairman: D. G. CORBLE

Secretary: A. GLASS, M.A., 43 Dalkeith Road, S.E.21

Local History Committee:

Chairman: J. D. LEE, F.L.A.

Secretary: H. E. ROBINS, B.A., F.R.G.S., 3 Cameron House, Highland Road, Bromley, Kent

Honorary Editor:

LAWRENCE S. SNELL, M.A., F.S.A., F.R.Hist.S., F.R.S.A.

Assistant Editor:

HUGH CHAPMAN, B.A., A.M.A.

Honorary Librarian:

D. R. WEBB, B.A., A.L.A.

Assistant Librarian:

MRS. I. EADES

Honorary Director of Meetings:

F. J. FROOM

Honorary Treasurer:

A. TRIBE, F.C.A., A.T.I.I.

Honorary Secretary:

ERIC E. F. SMITH, F.S.A.

Honorary Assistant Secretary:

J. A. CLARK, B.A.

Honorary Auditors:

L. J. MAGUIRE, M.B.E.

MRS. C. H. ALLEN, F.C.A.

London & Middlesex Archaeological Society

incorporating Middlesex Local History Council

119TH ANNUAL REPORT OF THE COUNCIL FOR THE YEAR ENDING
30TH SEPTEMBER, 1974

There were sixteen meetings, including lectures on 19th October: The Middlesex County Record Society, 1884-1894, by W. J. Smith, M.A., F.R.Hist.S.; 23rd November: The Brasses of Middlesex, by Dr. H. K. Cameron, M.A., B.Sc., Ph.D.; 14th December: The Livery of the City of London, by S. W. Howard, M.C., F.I.B.; 18th January, 1974: An illustrated History of the Fleet River, by R. Henwood (The George Eades Memorial Lecture); 15th February: Annual General Meeting and Presidential Address, Castles and Castle Building. The 14th & 15th Centuries; 16th March: The Medieval Church & the Problem of Heresy, by Miss B. Bolton, M.A. (a joint meeting with the Historical Society of the City Literary Institute); 22nd March: Thomas Cubitt, 1788-1855, by Hermione Hobhouse; 26th April: Some Aspects of Fifth-century London, by Nicholas Farrant; 27th September: Archives of the Corporation of London, by Miss B. R. Masters, B.A., F.S.A.; and visits on 6th October: West Drayton Local History Exhibition; 10th October: Guildhall Library, Manuscripts Department; 3rd November: National Monuments Record & Ancient Monuments Laboratory; 1st December: St. John's Gate, Clerkenwell; 9th February, 1974: Greater London Record Office & Library; 6th April: William Morris Gallery, Walthamstow; 29th June: whole day visit to Chichester.

The customary two Conferences were held and both were well attended. The Local History Conference was held on 17th November, the principal speaker being Professor H. J. Dyos, of the University of Leicester, on "Some Aspects of the History of Victorian London". The Archaeological Conference was held on 30th March and brief reports were made on excavations at Westminster, Greenwich Palace, Brockley Hill and Milk Street.

The Stow Commemoration Service was held at St. Andrew Undershaft on 24th April, the address being given by Dr. Arnold J. Taylor, C.B.E., M.A., D.Litt., F.B.A., Dir.S.A., F.R.Hist.S. The Pepys Service was held at St. Olave, Hart Street, on 6th June, the address being given by Professor H. R. Trevor-Roper, M.A.

Transactions Volume XXIV was issued and also three numbers of the News Letter.

Membership at 1st October, 1973, was 682 and at 30th September, 1974, was 709 made up as follows: Life Members 50; Honorary Members 8; Student Members 26; Junior Members 36; Annual Members 589. There are 40 Affiliated Societies.

An unavoidable increase in Subscription Rates was agreed at a Special General Meeting held on 26th April. The new Annual Subscription rates are: Ordinary Members, Affiliated Societies and Corporate Members £3.50; Husband and wife jointly subscribing £4.50; Students £1.50; Junior Members £0.50. Life Composition Rates are available on application.

The accounts show a deficit for the year of £77 and the improvement over the previous year is accounted for by the increase in interest received. With printing and other costs rising rapidly, the Society will need considerably greater income in future if its activities are not to be curtailed. The increase in subscription rates, referred to above, is expected to produce some £600 in additional income for the year to 30th September, 1975 but a further increase in membership remains urgent. In view of the deeper involvement of the Society in archaeological excavation, a summary of the transactions on this account is included for the first time in recent years and indicates the significance of the work now being undertaken in these spheres.

By direction of the Council,

S. W. HOWARD, M.C., F.I.B.,
Chairman of the Council.

E. E. F. SMITH, F.S.A.,
Honorary Secretary.

BALANCE SHEET as at 30th September, 1974

We have examined the above Balance Sheet and attached Income and Expenditure Accounts with the books and vouchers of the Society as submitted by the Honorary Treasurer. We have verified the Bank Balances and Securities with the Society's Bankers. In our opinion and to the best of our knowledge, these Accounts together with the Notes, are correct and in accordance with the books and records of the Society.

6th February, 1975

LONDON & MIDDLESEX ARCHAEOLOGICAL SOCIETY

INCOME AND EXPENDITURE ACCOUNT for the year ended 30th September, 1974

1972/73		EXPENDITURE		1973/74		1972/73		INCOME		1973/74	
£	£			£	£	£	£			£	£
1,113		Publications:					990	Subscriptions	-	-	1,036
74		Transactions volume 24	-	-	2,364		49	Income tax reclaimed on Deeds of Covenant	-	-	48
199		Library catalogue	-	-	-		163	Income from investments and bank deposit	-	-	479
	1,386	Newsletter	-	-	267		138	Sales of publications	-	-	110
		Lectures and visits	-	-	-			Donations and grants:			
53			-	-	-			Corporation of London—			
90		Conferences—grant expended	-	-	-	90		Conferences	-	-	90
37		Commemorative services	-	-	-			Publications	-	-	598
		Committees:						Miscellaneous—publications	-	-	886
197		Archaeological research	-	-	-			—general	-	-	18
53		Library	-	-	-	483					1,592
50		Rent	-	-	-	10					
10		Insurance	-	-	-		583				
231		Postage, printing and stationery	-	-	-		1,923				3,265
21		Subscriptions and donations	-	-	-			Excess of expenditure over income, deducted from accumulated funds			77
8		Sundry expenses	-	-	-		227				
14		Depreciation of equipment	-	-	-						
	<u>£2,150</u>						<u>£2,150</u>				<u>£3,342</u>

LONDON & MIDDLESEX ARCHAEOLOGICAL SOCIETY

ARCHAEOLOGICAL PROJECTS ACCOUNT for the year ended 30th September, 1974

119th Annual Report of the Council

EXPENDITURE	1973/74		INCOME	1973/74	
	£	£		£	£
Excavations:			Balance brought forward from last year		1,904
Acton - - - - -	-	2,236	Department of the Environment:		
Bow - - - - -	-	2,020	Grants for excavations - - - - -	11,750	
London docks - - - - -	-	12,865	Contribution to Inner London (North)		
Staines - - - - -	-	3,533	Archaeological Unit - - - - -	1,500	
		20,654			13,250
Grants for excavations by local societies:			Riverside London Limited - - - - -	-	10,000
Clerkenwell - - - - -	-	75	Staines Urban District Council - - - - -	-	1,500
Fullham - - - - -	-	25	Spelthorne Borough Council - - - - -	-	3,000
		100	London Borough of Hackney - - - - -	-	860
Inner London (North) Archaeological Unit			London Borough of Islington - - - - -	-	860
Preliminary expenditure - - - - -	-	367	Charge in the Society's income and ex-		
Administration expenses - - - - -	-	30	penditure account - - - - -	-	116
Conference deficit - - - - -	-	16	Roman & Medieval London Excavation		
Unexpended grants carried forward	-	10,523	Council - - - - -	-	200
					<u>£31,690</u>
					<u>£31,690</u>

List of Members

Corrected to 1st May 1975

(*) Life Member (H) Honorary Member (S) Student Member (J) Junior Member

- | | | | |
|----------|---|----------|---|
| 1973 | Abel, J. E., 37c Princess Road, N.W.6. | 1972 | Biffin, E. H., M.A., 2 St. Margaret's Road, Brockley, SE4 1YU |
| 1972 | Adams, R. H., T.D., M.A., F.S.A., 108 Dulwich Village, SE21 7AQ | 1971 | Billingsley, Miss D. J., B.A., Flat 4, 12 Langland Gardens, N.W.3. |
| 1971 | Akehurst, Miss E. M., 34 Norland Square, W.11. | 1972 (S) | Bird, Miss C. F. M., 1 Sudbrooke Road, SW12 8TG |
| 1968 | Aldam, Mrs. S., 9 Rokesly Avenue, Crouch End, Hornsey, N.8. | 1971 | Bird, Mrs. J. L., 10 Sutton Lodge, Clandon Road, Guildford, Surrey. |
| 1974 (J) | Aldred, Miss J., 239 Nether Street, Finchley, N3 1NY | 1972 | Birkin, M. D. M., 5E Portman Mansions, Chiltern Street, W.1. |
| 1954 | Allen, Mrs. O.T., J.P., F.C.A., 53 Sandy Lane, Cheam, Sutton, Surrey. | 1975 (J) | Bite, I. T., junr., 61 Sunnymead Road, Kingsbury, NW9 8BS |
| 1973 | Anderson, T. W. M., 69 Monkham Lane, Woodford Green, Essex, IG8 0NN | 1974 | Black, G., 33 Ardleigh Road, N.1. |
| 1966 | Andrews, Miss J. J., 146 Vallence Avenue, Dagenham, Essex. | 1975 | Black, J. G., M.A., 20 Sugden Road, SW11 5EF |
| 1973 (S) | Argent, A., B.Sc., The Flat, Trinity Congregational Church, St. Matthews Road, S.W.2. | 1968 | Black, Miss M. R., 98 Cambridge Road, Hounslow, Middlesex. |
| 1972 | Arkinstall, Mrs. K., 22a Haverstock Hill, N.W.3. | 1970 | Blackden, Miss V. M., 7 Montpelier Avenue, Ealing, W.5. |
| 1975 | Armitage, P. L., M.Sc., 15 Valeside, Hertford, Herts. | 1967 | Blackman, Mrs. G. P., 27 Copper Mead Close, Gladstone Park Gardens, N.W.2. |
| 1971 (S) | Arthur, P. R., c/o Col. R. Arthur, O.B.E., Nato Defence College, c/o U.K. Support Unit, H.Q. Afsouth, Naples, BFPO 8. | 1971 | Blagden, Miss J. M., A.I.L.P., 12 Lawn Road, N.W.3. |
| 1964 | Ashdown, J. H., 53 Bainton Road, Oxford, OX2 7AG | 1968 | Blair, Miss C. A. M., 48 Park Avenue, Enfield, Middlesex, EN1 2HW |
| 1972 | Badger, S., 72 Brook Drive, S.E.11. | 1964 | Bloice, B. J., 94 Hubert Grove, S.W.9. |
| 1963 | Baggaley, Miss F., 69 Elmcroft Crescent, N. Harrow, Middlesex, HA2 6HL | 1969 | Boast, Miss M. J., B.A., A.L.A., 188 Peckham Rye, S.E.22. |
| 1969 | Bailey, K. A., M.A., F.R.G.S., 32 Westhorpe Road, S.W.15. | 1975 | Boddington, A., 203 Fullingdale Road, Northampton, NN3 2QM |
| 1970 | Baker, Mr. & Mrs. Julius, 16 Kidderpore Gardens, N.W.3. | 1973 | Botting, Dr. J., 7 Vineyard Hill Road, SW19 7JL |
| 1968 | Baker, T. F. T., B.A., 50 Hastings Road, Pembury, Tunbridge Wells, Kent. | 1973 (J) | Botting, M., 7 Vineyard Hill Road, SW19 7JL |
| 1974 (S) | Bakewell, J., The Museum, Long Street, Devizes, Wiltshire. | 1972 | Bowyer, L. F., 110 Andrewes House, Barbican, EC2Y 8AY |
| 1967 | Banks, Miss E. B., 17 St. Anthony's Court, Nightingale Lane, S.W.12. | 1974 (J) | Box-Grainger, Miss C. J., 30 Bramham Gardens, S.W.5. |
| 1964 | Barber, Miss M. A., 26 Oak Hill, Surbiton, Surrey, KT6 6DY | 1967 | Brassington, E. G., 2 Stone Gate, St. Silas Place, N.W.5. |
| 1971 | Barrett, J. C., University of Glasgow, Dept. of Archaeology, Glasgow G12 8QQ | 1971 | Brinklow, D. A., B.A., 13 Hopgrove Lane, Malton Road, York, YO3 9TG |
| 1963 | Barron, Mrs. C. M., M.A., Ph.D., F.S.A., F.R.Hist.S., 35 Rochester Road, N.W.1. | 1970 | Brooks, D., 16 Bordesley Road, Morden, Surrey. |
| 1950 | Bathe, B. W., 42 Deane Croft Road, Eastcote, Pinner, Middlesex. | 1961 | Brown, A. E., B.A., Dept. of Adult Education, The University, University Road, Leicester. |
| 1973 | Bayliss, W., 3 Lambourne Avenue, Wimbledon Park, S.W.19. | 1945 (*) | Brown, C., 6 Mount Vernon, Hampstead, N.W.3. |
| 1973 | Beams, M., C.Eng., M.I.Mech.E., 2 Maybourne Grange, Turnpike Link, E. Croydon, Surrey. | 1973 | Brown, Miss E., The Hundred House, Sunset Avenue, Woodford Green, Essex. |
| 1956 (*) | Becque, Miss C. M., 71 Bute Gardens, Hammer-smith, W.6. | 1970 | Brown, N. C., M.A., Mill Pond Cottage, West Ashling, near Chichester, Sussex. |
| 1968 | Belcher, V. R., M.A., 45B Gore Road, E.9. | 1974 | Browne, D. M., B.A., 48 St. Barnabas Road, Cambridge, CB1 2DE |
| 1970 | Benis, J. A., 989 Finchley Road, N.W.11. | 1972 | Bryant, Miss V., 2 Stead Street, S.E.17. |
| 1970 (*) | Benwell, J. E. G., B.Litt., 59 Lansdown Road, Chalfont St. Peter, Bucks. | 1971 | Buck, A. M. G., 71 Bullescroft Road, Edgware, HA8 8RN |
| 1955 (*) | Bernhard-Smith, D., 5 Briant's Close, Hatch End, Pinner, Middlesex. | 1973 | Buck, M. A., 178 Meadvale Road, Ealing, W5 1LT |
| 1951 | Berry, G. C. F., M.A., 63 Chandos Road, E. Finchley, N.2. | 1974 | Buchanan, R. J., 79 Ashridge Crescent, Shooters Hill, SE18 3EA |
| 1950 | Biddle, M., M.A., F.S.A., 13 Parchment Street, Winchester, Hants. | 1973 (J) | Bull, Miss V., 11 Berkeley Place, S.W.19. |
| | | 1961 | Bulmer-Thomas, Ivor, 12 Edwardes Square, W.8. |
| | | 1974 | Bumpus, Haldane & Maxwell Ltd., Cowper Works, Olney, Bucks., MK46 4BN |

List of Members

- 1966 Burch, B., M.A., A.L.A., 4 Kingsmead Road, Leicester, LE2 3YB
- 1974 Burleigh, R., 77 Princes Avenue, Acton, W.3.
- 1959 Burrell, Mr. & Mrs. R., 21 Manor Road, Ashford, Middlesex.
- 1955 Burton, Mr. & Mrs. H. J., 2 Kestrel Court, Bembridge Gardens, Ruislip, Middlesex.
- 1968 Cairns, Mr. & Mrs. G. L., 19 Kingsley Place, N6 5EA
- 1974 (j) Caldwell, Miss A., 90 Stanley Road, Hornchurch, Essex.
- 1974 (s) Calnan, C. N., 7 Collington Rise, Bexhill on Sea, Sussex.
- 1949 (*) Cameron, H. K., B.Sc., Ph.D., F.S.A., 31 Porson Road, Cambridge, CB2 2ET
- 1953 (*) Campbell, Miss E. M. J., M.A., Birckbeck College, Malet Street, W.C.1.
- 1972 Campbell, Mr. & Mrs. I., 8 The Postern, Barbican, EC2Y 8BJ
- 1971 Campbell-Grant, Mrs. H., Flat 1, 4 Castello Avenue, S.W.15.
- 1974 Campbell-King, I. M. M., 63 Seaford Road, West Ealing, W.13.
- 1966 Canham, R. A., B.A., Library & Museums Service, Wiltshire County Council, Bythesea Road, Trowbridge, Wiltshire.
- 1973 Canvin, G. L., 276 Uppingham Avenue, Stanmore, Middlesex, HA7 2JS
- 1974 Carter, H. L., 57 Woodstock Road, Walthamstow, E17 4BH
- 1972 Carter, Miss S. M. E., 27 Harvard Court, Honeybourne Road, NW6 1HL
- 1975 Casey, P. J., Dept. of Archaeology, The University, Durham.
- 1970 Castle, S. A., 31 Micklefield Way, Boreham Wood, Herts.
- 1972 Cavanna, Mrs. C. S., 7 Lincoln Road, N. Harrow, HA2 7RQ
- 1961 (*) Chaffin, D. E., 29 Victoria Street, Aberdeen, AB1 1UU
- 1965 Chaloner, Miss J., 159 Camberwell Grove, S.E.5.
- 1971 Chapman, C. B., 33 Pollards Hill North, SW16 4NJ
- 1970 Chapman, H. P. A., B.A., A.M.A., Guildhall Museum, 55 Basinghall Street, E.C.2.
- 1975 Chapman, J., 8 Caselden Close, Addlestone, Surrey, KT15 1PS
- 1969 Chapman, Mr. & Mrs. J. B., 10 Mulberry House, Victoria Park Square, E.2.
- 1972 Chapman, M. S., 212 Ashmore Road, W.9.
- 1975 Chapman, S. C., 14c St. Mark's Rise, Hackney, E8 2NJ
- 1975 (j) Chimonedis, J., 148 Seven Sisters Road, N.7.
- 1968 Clark, J. A., B.A., 94 Brading Crescent, Wanstead, E11 3RS
- 1974 Clark, R. J., 54 Jepson House, Pearscroft Road, S.W.6.
- 1974 Clayton, Mr. & Mrs. G. T., 10 Southwood Avenue, Highgate, N.6.
- 1967 (*) Cleary, F. E., M.B.E., F.A.I., F.R.I.C.S., 4 Carlos Place, Mayfair, W.1.
- 1974 Clegg, Miss G., 3 Beaufort Mansions, Beaufort Street, S.W.3.
- 1972 Cliffe, Miss S. M., 13 Queensthorpe Road, S.E.26.
- 1974 Cobban, A. D., M.Inst.M.P., 11 Pennyfields, Warley, Brentwood, Essex.
- 1974 (j) Cobban, I. D., 11 Pennyfields, Warley, Brentwood, Essex.
- 1975 (s) Cockerman, P. D., 17 Berryfield Road, Solihull, West Midlands.
- 1973 Cockerton, Mr. & Mrs. K. A., 144 Hainault Road, Romford, Essex.
- 1975 (*) Cockle, Miss R. M., 4 Egerton Drive, Greenwich, S.E.10.
- 1962 Coleman, Miss M. L., B.A.(Hons.), 44 Spratt Hall Road, Wanstead, E.11.
- 1973 Collis, D., 16 Rawlings Street, Chelsea, S.W.3.
- 1974 Cook, Miss J. L., St. Martin in Fields High School, 155 Tulse Hill, S.W.2.
- 1974 Cook, M., c/o Dept. of Archaeology, University College, Cardiff.
- 1968 Cooper, Mrs. E., B.A., 38 West Street, Harrow, Middlesex.
- 1971 Corben, E. R., 29 Clare Lawn Avenue, S.W.14.
- 1956 Corp, E. A., 33 Straffan Lodge, 1 Belsize Grove, N.W.3.
- 1974 Cotton, M. J., 151 Pears Road, Hounslow, Middlesex.
- 1969 Cotton, W. J., 1 Linden Court, Frithville Gardens, W12 7JJ
- 1973 Cowen, Miss A. B., B.A., 15 Claremont Close, N1 9LT
- 1973 Cowie, Miss M. N., S.R.N., S.C.M., Ruxley, Sandy Lane, Fooks Cray, Sidcup, Kent, DA14 5AH
- 1947 (H) Cox, A. H., A.R.Hist.S., Winsley, Bagley Close, West Drayton, Middlesex.
- 1975 Coxshall, R. A., 64 Faversham Avenue, Bush Hill Park, Enfield, Middlesex, EN1 2BU
- 1969 Creswell, J. B., 142 Harborough Road, Streatham, SW16 2XW
- 1975 Croft, Mrs. P. E., 19 St. Margaret's Avenue, Ashford, Middlesex, TW15 1DR
- 1964 Cross, Miss B. M., 32 Silver Crescent, Gunnersbury, W4 5SE
- 1974 Crouch, K. R., B.Sc., 162 Alnmers Road, Lyne, Chertsey, Surrey.
- 1958 Crowe, S., 5 Bloomsbury Street, W.C.1.
- 1970 (s) Crozier, Miss C., 112 Bridge Lane, Temple Fortune, N.W.11.
- 1967 Curtayne, Miss B., 4 St. Leonard's Court, East Sheen, S.W.14.
- 1973 (s) Dann, D., 22 Adley Street, Homerton, E5 0DY
- 1973 (j) Davies, D., 13 Cleverly Estate, Wormholt Road, W12 0LX
- 1972 Davies, Mr. & Mrs. I. W., 14 Mapesbury Road, NW2 4JB
- 1953 Davies, Mrs. M. L., B.A., 30 Bateman Road, Croyley Green, Herts.
- 1973 Davin, Miss A., 19 Elder Street, E.1.
- 1956 Dawe, R. M., 21 Morgan Crescent, Theydon Bois, Essex.
- 1964 Dawson, G. J., B.A., Ph.D., 40 Station Road, Orpington, Kent.
- 1972 Dawson, P. M., B.A., 16 Manson Place, SW7 5LT
- 1974 Dayton, Mrs. A. J., Institute of Archaeology, 31 Gordon Square, W.C.1.
- 1970 Dell, A. J., M.B.C.S., Greshams, Crouch End Road, Edenbridge, Kent.
- 1950 (*) Denny, Sir Lionel, G. B. E., M.C., D.Sc., 901 Grenville House, Dolphin Square, S.W.1.
- 1966 Diver, Miss M. A., 10 Dollis Court, Crescent Road, Finchley, N.3.
- 1974 Douglas, J. J., 93 Taunton Road, Lee, SE12 8PA
- 1926 (*) Dove, A. N., J.P., Burleigh Farm, Goffs Oak, Waltham Cross, Herts., EN7 5RY
- 1956 (*) Drake, J. G., M.A., 114 Stanstead Road, Caterham, Surrey. CR3 6AE
- 1971 Drayton, Miss I. W., 35 Beech Avenue, Crews Hill, Enfield, Middlesex.

List of Members

- 1975 (j) Drucker, G. R., 75 College Road, Harrow Weald, Harrow, Middlesex. HA3 6EF
- 1975 Du Cane, Miss J., Little Thatch, North Gorley Fordingbridge, Hants.
- 1974 (j) Duffles, E. J. R., 97 Van Speykstraat, Den Haag, Netherlands.
- 1966 (*) Dulley, Rev. A. J. F., M.A., Edgehill, Common Lane, Letchmore Heath, Watford, WD2 8EQ
- 1974 Dyer, S., 115 Raleigh Road, Feltham, Middlesex.
- 1948 (*) Eades, Mrs. I. L., 3 Dollis Court, Crescent Road, Church End, Finchley, N.3.
- 1970 Earp, J. S., 17 Kirkdale Road, Leytonstone, E.11.
- 1974 Eastop, Mrs. B. E., 10 Beechwood Avenue, Richmond, Surrey. TW9 4DE
- 1974 Edgar, Miss M. A., 55 Cranbury Road, S.W.6.
- 1973 Edmondson, Miss A., B.A., 18 Riddlesdown Avenue, Purley, Surrey, CR2 1JG
- 1974 Edson, Mr. & Mrs. S., 33 Elmgate Gardens, Edgware, HA8 9RJ
- 1973 Edwards, Mr. & Mrs. R., 12 Blacklands Drive, Hayes End, Hayes, Middlesex, UB4 8EU
- 1974 Edwards, Miss R., 30 The Garden, S.E.22.
- 1969 (s) Egan, G., 49 Medway Gardens, Wembley, Middx.
- 1965 Egan, H., B.Sc., Ph.D., 49 Medway Gardens, Wembley, Middlesex.
- 1970 Elliott, E., 2 Crescent Lodge, Crescent Road, New Barnet, Herts.
- 1935 (*) Epps, Miss T. D., Holly Bank, South Street, Pennington, Lymington, Hants.
- 1954 Esdale, Mrs. R. M. J., B.A., 49 Clareville Street, SW7 5AX
- 1973 Essex, Miss J., 14 Sterndale Road, W14 oHS
- 1971 Esslemont, P. D., M.A., F.I.A., 25 Thomas a Becket Close, Sudbury, Wembley, Middlesex, HA0 2SH
- 1972 Eustace, Mr. & Mrs. E. F. J., 18 Andrewes House, Barbican, EC2Y 8AX
- 1970 Evans, Mrs. F. V., B.A., B68, Du Cane Court, Balham S.W.17
- 1973 Evans, Miss P., 43 Holcombe Road, Tottenham, N.17.
- 1974 Evans, Miss W., Museum of London, c/o London Museum, Kensington Palace, W.8.
- 1970 Ewbank, Miss S. C., 18 St. James's Gardens, W.11.
- 1973 Exley, W. M., 104 Northwick Avenue, Harrow, HA3 oAT
- 1945 Eyres, Miss W., B.Sc.(Econ.), F.N.G.A., L.G.S.M., 35 Western Avenue, Barton-on-Sea, New Milton, Hants.
- 1964 Farrant, N. M. D., 7 Coalecroft Road, S.W.15.
- 1964 Farthing, C. H. J., O.B.E., B.A., F.S.A., 61 Egerston Gardens, S.W.3.
- 1962 Fisher, S. T., B.A.Sc., 53 Morrison Avenue, Town of Mount Royal, Quebec, Canada.
- 1938 Fletcher of Islington, The Rt. Hon. the Lord, LL.D., B.A., F.S.A., 9 Robin Grove, Highgate, N.6.
- 1974 Forde, Mrs. H., 10 Holmbush Road, SW15 3LE
- 1957 Forge, Mr. & Mrs. F. W., 31 Hampstead Lane, N6 4RT
- 1950 Fozzard, P. R., 36A Fitz George Avenue, W.14.
- 1974 (s) Freidin, N. P., B.A., 19 Green Street, W1Y 3RD
- 1972 French, Mrs. A., 1 Albion Square, Hackney, E.8.
- 1950 Froom, Mr. & Mrs. F. J., 7 Henry's Avenue, Woodford Green, Essex.
- 1947 Gabriel, D. B. G., B.A., Pottshays, Ridge, near Barnet, Herts.
- 1975 Garfi, S., 47 Thurleigh Road, S.W.12.
- 1971 (H) Gibbs, Miss L., 28 Tower Road, Strawberry Hill, Twickenham, Middlesex.
- 1973 (*) Gidley-Kitchin, G. C. B., Wybournes, Kemsing, Sevenoaks, Kent.
- 1973 Glass, A. M., M.A., 43 Dalkeith Road, S.E.21.
- 1974 (s) Godden, T. M., 58 Highgate Hill, N.19.
- 1974 Godfrey, Miss A. M. R., 2 Salem Mansions, Salem Road, W2 4DA
- 1975 Goodchild, Mrs. E., 44 Sheepcote Road, Harrow, HA1 2JE
- 1947 Gorsky, D., 4 The Grange, Hartley Wintney, Basingstoke, Hants.
- 1963 (*) Gould, D., 104 Station Road, Barnes Common, S.W.13.
- 1956 Grace, Rev. R. W., St. Faith, 220 Elson Road, Gosport, Hants.
- 1965 Grafton Green, Mrs., 88 Temple Fortune Lane, N.W.11.
- 1975 Graham, A. H., B.A., 20 Stuart Avenue, Liverpool, L25 oNJ
- 1973 Grant, E. G., 24a Second Avenue, Hendon, N.W.4.
- 1973 Grant, Miss E. M., 65a Redcliffe Gardens, S.W.10.
- 1969 Green, A. J. K., 5 Wilton Crescent, Merton, S.W.19.
- 1947 Green, Miss R. A. M., Flat 16, Cedar Grange, 22 Lindsay Road, Branksome Park, Poole, Dorset, BH13 6AX
- 1951 (*) Greene, N. W., M.A., A.M.I.C.E., Little Dene, Forest Drive, Tadworth, Surrey.
- 1973 (s) Greenstein, B., 17B Upper Park Road, N.W.3.
- 1974 Greenway, Miss M., B.A., Flat 5, 59 Kennington Park Road, SE11 4JQ
- 1968 (s) Greenwood, Miss P., 20 Cromer Villas Road, S.W.18.
- 1970 Griffiths, Mrs. E., B.A., 57 Whitefriars Drive, Harrow Weald, Middlesex.
- 1972 Griffiths, Miss E., 60 Herne Hill, S.E.24.
- 1948 Grimes, Professor W. F., C.B.E., M.A., D.Litt., F.B.A., F.S.A., 2 Bryn Road, Swansea, Glamorgan.
- 1971 Grindlay, S. J. S., 2 Trinity Terrace, Epping New Road, Buckhurst Hill, Essex.
- 1938 (*) Groves, Lt. Col. H. G. S., J.P., F.R.I.C.S., Little Park, 5 Gentleman's Row, Enfield, Middlesex.
- 1974 Guterres, A. M., 603 Gilbert House, Barbican, E.C.2.
- 1970 Hackman, H., M.A., LLB., 2 Montpelier Walk, S.W.7.
- 1949 Hall, A. H., F.S.A., F.L.A., 23 Uvedale Road, Enfield, Middlesex.
- 1967 Hall, Miss K. E., M.A., 10 Kelvin Court, Kensington Park Road, W.11.
- 1975 Hall, Mrs. L. J., B.A., 137 Peregrine Road, Sunbury-on-Thames, Middlesex, TW16 6JH
- 1954 Hall, Miss M. L., M.A., 78b Ashley Gardens, Victoria Street, S.W.1.
- 1975 Halley, W. S., 15 Princes Avenue, Woodford Green, Essex.
- 1971 Hammerson, M. J., 12 Florida Close, Bushey Heath, Herts.
- 1974 (H) Hammond, B., 32 Ashridge Gardens, N.13.
- 1970 Hanington, Dr. J., F.R.C.O.G., 77 Murray Road, Wimbledon Common, S.W.19.
- 1957 Harden, D. B., C.B.E., M.A., Ph.D., F.S.A., 12 St. Andrew's Mansions, Dorset Street, W1H 3FD
- 1960 (*) Harmsworth, Miss M. R. N., Flat 7, Campden House Court, 42 Gloucester Walk, Kensington, W.8.
- 1950 Haselgrove, D. C., 10 Church Gate, S.W.6.
- 1975 Haslam, J., 28 Tory, Bradford on Avon, Wiltshire.

List of Members

- 1967 Hawtin, Dr. G., B.A., Ph.D., F.S.A.,(Scot.) 5 Clifton Road, S.W.19.
- 1969 Hayward, Miss A., 2 Bell Close, Pinner, Middlesex, HA5 2AQ
- 1956 Hayward, Miss C. M., 21 Danvers Street, Chelsea, SW3 5AY
- 1973 Hearne, Miss B., 232 Coombe Lane, Raynes Park, S.W.20.
- 1972 Heath, G. D., B.Sc., 77 Broad Lane, Hampton, Middlesex TW12 3ED
- 1971 Hebditch, M. G., M.A., F.M.A., Guildhall Museum, 55 Basinghall Street, E.C.2.
- 1975 Herbert, W. J., B.A., 11 Forsyth Place, Enfield, Middlesex.
- 1975 Hill, C., Guildhall Museum, 55 Basinghall Street, E.C.2.
- 1975 Hill, Mrs. E. A., 56 Northway, N.W.11.
- 1975 Hinchliffe, J., 1-2 Steward Street, E.1.
- 1975 Hinton, Mrs. M. P., 99 Auckland Road, Upper Norwood, SE19 2DT
- 1974 Hobley, B., B.A., F.S.A., Guildhall Museum, 55 Basinghall Street, E.C.2.
- 1967 Hodder, Rev. J., 2 Station Street, Kibworth Beauchamp, Leicestershire.
- 1971 Holyland, S., 46 Joseph Trotter Close, Myddelton Street, E. C.1.
- 1974 Hood, G. W., S.R.N., R.N.T., 9 Mulberry House, Victoria Park Square, E2 9PQ
- 1972 Hopkins, A. G., 56 Plough Lane, Purley, CR2 3QE
- 1952 (*) Howard, Miss W. J., 12 Chiswick Lane, W.4.
- 1952 Howard, Mr. & Mrs. S. W., 179 Coombe Road, Croydon, Surrey, CR0 5SS
- 1954 Howlett, V., 61b Elms Road, Clapham, S.W.4.
- 1970 Hudson, Miss D. M., B.A., 14 The Hermitage, Barnes, S.W.13.
- 1953 Hughesdon, Miss C., 37 Birchington Road, Crouch End, N.8.
- 1973 Hume, T. A., B.A., F.S.A., F.M.A., 4 Thomas More House, Barbican, EC2Y 8BT
- 1973 Humphrays, Mrs. R., 514 Willoughby House, Barbican, EC2Y 8BN
- 1970 (H) Humphrey, S. C., 125 John Ruskin Street, S.E.5.
- 1966 Humphreys, Miss E. J., 21 The Chantry, Hillingdon, Middlesex.
- 1975 Hurst, Mr. & Mrs. T. J., 40 Kildare Terrace, Westbourne Grove, W.2.
- 1972 Huskinson, C. H., 55 Derbyshire Street, E.2.
- 1974 Ingram, P. W., B.Sc., 5 Amner Road, S.W.11.
- 1975 James, Miss J. A., 85 Woodpecker Mount, Pixton Way, Croydon, Surrey, CR0 9JB
- 1973 Janes, Miss S. M., 9 Cobden Buildings, 128 Kings Cross Road, W.C.1.
- 1961 Jarvis, R. C., I.S.O., F.S.A., F.R.Hist.S., 18 Station Road, Hockley, Essex.
- 1934 (*) Jarvis, R. C., 34 Downside Avenue, Findon Valley, Worthing, Sussex.
- 1968 Jeavons, Mrs. M. D., L.R.A.M., A.R.C.M., 95 Brightside Avenue, Staines, Middlesex.
- 1973 Jeffery, F. V., 110 Elgar Avenue, Tolworth, Surrey.
- 1974 Jessel, C. R., Flat 1, 43 Kensington Park Gardens, W11 2QT
- 1958 (H) Jessup, F. W., C.B.E., M.A., LL.B., F.S.A., Striblehills, Thame, Oxon.
- 1975 (J) Johnson, A. E., 62 Richards Street, Cathays, Cardiff.
- 1958 Johnson, D. J., B.A., 41 Cranes Park Avenue, Surbiton, Surrey.
- 1972 Jones, Mr. & Mrs. D. F., 29 Grand Avenue, Muswell Hill, N.10.
- 1970 Jones, I. K., 18 Corby Crescent, Enfield West, Middlesex.
- 1972 Jones, O. R., Flat 8, 3 Hyde Park Crescent, W2 2PW
- 1937 (*) Josling, W., 113 Prince's Avenue, Palmers Green, N.13.
- 1974 Judges, Mrs. R. K., B.A., 53a Strand on the Green, W4 3PD
- 1974 (J) Kaczmarik, Miss B., 27 Bishopsthorpe Road, Sydenham, S.E.26.
- 1972 Kattenhorn, B. W., 336 Hatfield Road, St. Albans, Herts.
- 1974 Kazer, Miss K., M.A., 12 Tamar House, Kennington Lane, S.E.11.
- 1974 (S) Keen, S., 52 Cecilia Road, E.8.
- 1963 Kellaway, C. W., M.A., F.S.A., F.L.A., 2 Grove Terrace, N.W.5.
- 1974 Kelly, D., 47 Hyde Park Avenue, Winchmore Hill, N.21.
- 1970 Kelsall, A. F., 41 West Park, S.E.9.
- 1972 Kentish, Mrs. D. S., 21 Gamlen Road, Putney, SW15 1AB
- 1969 Kerling, Dr. N. J. M., Ph.D., F.R.Hist.S., 26 Upper Park Road, N.W.3.
- 1974 King, A., 32 Leazes Avenue, Chaldon, Caterham, Surrey.
- 1971 Kington, Mrs. S., 74 Kensington Park Road, W.11.
- 1972 Klein, P., 6 Collingwood Court, 97 Hanger Lane, Ealing, W.5.
- 1962 Lamont, A. W. A., B.Sc.(Econ.).
- 1974 (S) Latchman, D. S., 9 Gresham Gardens, NW11 8NX
- 1974 Lavell, Miss C., B.A., F.S.A., c/o Council for British Archaeology, 7 Marylebone Road, NW1 5HA
- 1974 Laws, Miss A., The London Museum, Kensington Palace, W.8.
- 1974 Ledran, Mrs. J. P., 53 Hawfinch Walk, off Fircrest Road, Chelmsford, Essex.
- 1955 Lee, C. E., 2 Duke's Road, Tavistock Square, W.C.1.
- 1969 Lee, J. D., F.L.A., 49 Uphill Drive, Kingsbury, N.W.9.
- 1972 Lee, J. J., 48 Platts Lane, N.W.3.
- 1967 Leeds, A., 30 Heathfield Road, Bushey, WD2 2LJ
- 1972 Lee-Kauffmann, D., 114 Pavilion Road, S.W.1.
- 1966 Leese, Mr. & Mrs. P. F., 52 Harvey Road, Croyley Green, Rickmansworth, Herts.
- 1973 Leff, S., F.I.A.C., 3 Hadley Court, Cazenove Road, N.16.
- 1973 (S) Lennox, D., 74 Bramley Road, Southgate, N14 4HS
- 1965 Leonard, F. H., 26 Barn Hill, Pinner, HA5 2SX
- 1974 Lewis, D., 28 Rothesay Avenue, Wimbledon Chase, S.W.20.
- 1971 Lewis, Mr. & Mrs. T., 14 Lancaster Road, Edmonton, N18 1HP
- 1969 Linley-Howlett, L. B., 2 Neri House, 16 Darlaston Road, S.W.19.
- 1975 Little, Mr. & Mrs. W. J., 69 Elmhurst Drive, Hornchurch, Essex, RM11 1NZ
- 1971 Lock, R. A., 17 Burrow Road, Chigwell, Essex.
- 1974 Loobey, Mr. & Mrs. P., 157 Longcliffe House, Arndale Walk, SW18 4BN
- 1975 Lorimer, Mrs. D. H., F.S.A., A.R.P.S., 8 Southway, Totteridge, N.20.
- 1960 Lovell, D. E., 28 Martin Way, Morden, Surrey.
- 1963 Lowenstein, Mrs. E., 1 Park Avenue, N.W.11.
- 1957 Macdonald, Mrs. D. C., 36 Milford Gardens, Edgware, Middlesex.

List of Members

- 1957 Macdonald, Miss H., B.A., 36 Milford Gardens, Edgware, Middlesex.
- 1972 (*) Macdonald, Miss J. K., The London Museum, Kensington Palace, W.8.
- 1974 Mackenzie, M., 60 Scotts Road, Southall, Middx.
- 1970 McBean, K. J., A.R.I.C.S., 82 North View, Eastcote, Pinner, Middlesex.
- 1971 McCririck, Miss A., 24 Kensington Place, W.8.
- 1954 McDonnell, K. G. T., B.Sc.(Econ.), Ph.D., Lilian Penson Hall, Talbot Square, W2 1TT
- 1972 McIlwain, Miss A., 14 Chipstead Street, Fulham, S.W.6.
- 1974 McLaren, Miss F. S., 249 Commonsides East, Mitcham, Surrey.
- 1970 (*) McLellan, Dr. I., M.B., B.S., L.R.C.P., M.R.C.S., 8 Jeffreys Street, NW1 0PR
- 1973 (s) McMillan, D. J., 18 Michleham Down, N12 7JN
- 1946 (*) Maguire, L. J., M.B.E., 54 Cropham Valley Road, South Croydon, CR2 7NB
- 1953 (*) Mander, N. P., F.S.A., St. Peter's Organ Works, St. Peter's Avenue, Hackney, E.2.
- 1967 Manson, M. J., 20 Medway Gardens, Wembley, Middlesex.
- 1973 Manthorpe, Mrs. J. A., B.Lib., 40A Longley Road, Tooting, S.W.17.
- 1963 (*) Marks, S. N. P., M.A., 50 Grove Lane, S.E.5.
- 1963 Marsden, P. R. V., F.S.A., Guildhall Museum, 55 Basinghall Street, E.C.2.
- 1974 (s) Marsh, G. D., 37 Fulbrooks Avenue, Worcester Park, Surrey. KT4 7PE
- 1973 (s) Marsh, Miss K., Murtle, Sunninghill, Ascot, Berks.
- 1970 Martin, Miss E. M., 6 Arlington Road, Woodford Green, Essex.
- 1966 May, T. F., B.Sc., 22 Salisbury Road, Harrow on the Hill, Middlesex.
- 1966 Maylor, D. L., 48 Chestnut Grove, East Barnet, Herts.
- 1974 Mead, V. K., Booking Hall, Bartlow, Cambridgeshire, CB1 6PW
- 1974 Medgett, W. J., 17 Hale Drive, Mill Hill, N.W.7.
- 1972 Menzies, Mrs. C., 33 Parkhall Road, West Dulwich, SE21 8EX
- 1948 (*) Mercer, Miss E. D., B.A.(Hons.), F.S.A., Hillside, Deepdene Drive, Dorking, Surrey.
- 1964 Merrifield, R., B.A., F.S.A., F.M.A., Guildhall Museum, 55 Basinghall Street, E.C.2.
- 1966 Micklewright, F. H. A., M.A., F.R.Hist.S., F.S.A.(Scot.), 228 South Norwood Hill, S.E.25.
- 1974 Millard, Mrs. D., 31 Clarendon Flats, Balderton Street, W.1.
- 1958 Milne, A. T., M.A., F.R.Hist.S., 9 Frank Dixon Close, Dulwich, S.E.21.
- 1974 Milne, G., 10 Offord Road, Islington, N1 1DC
- 1955 Milner-White, Miss U. M., B.A., 48 Addison Road, W.14.
- 1975 Moger, Mrs. V., B.A., 406 Howard House, Dolphin Square, S.W.1.
- 1975 Moll, Mr. & Mrs. S. P., 12 Horsell Park Close, Horsell, Surrey.
- 1973 Morgan, Mrs. G., 12 Northstead Road, SW2 3JW
- 1965 Morgan, G. C., Attenborough Building, University of Leicester, Leicester, LE17 7RH
- 1967 Morgan, G. S., 49 Dresden Road, N.19.
- 1974 Morgan, P. T. L., B.A., 36 Waldemar Avenue, SW6 5NA
- 1973 Morris, Miss A. P., 5 Ladysmith Road, Tottenham, N17 9AN
- 1957 Morrison, A. C., M.A., 51 Sunningfields Road, Hendon, N.W.4.
- 1973 Moss, D., Ph.C., 8 Queen's Court, 53 Lordship Park, N16 5VW
- 1973 Moulie, Miss C. M., 38 Kylemore Road, NW6 2PT
- 1975 Mount, E. P., 2a St. Augustine's Road, Canterbury, Kent, CT1 1XP
- 1952 Muirhead, L. R., M.A., F.S.A., 87 Addison Road, W.14.
- 1973 Murphy, G. M., 167 The Avenue, West Wickham, Kent.
- 1975 Murray, J. C., B.A., 5 Pelham Road, S.W.19.
- 1953 Musgrove, G. H., 20 Redbourne Avenue, Church End, Finchley, N.3.
- 1949 Myers, Miss W. A., 35 Dover Street, W.1.
- 1973 Neville, Mr. & Mrs. K. H., 4 Highbury Close, West Wickham, Kent.
- 1975 Nevinston, J. L., M.A., F.S.A., 18 Hyde Park Place, W.2.
- 1974 Nightingale, M., 44 Acton House, Horn Lane, W3 9EJ
- 1958 Nockles, Miss R. E., 33 Lapstone Gardens, Kenton, Harrow, Middlesex.
- 1974 Norris, J. E., 99 Lord's View, St. John's Wood Road, NW8 7HD
- 1974 Norton, G., 61 Norbury Crescent, Norbury, SW16 4JS
- 1974 (j) Nowakowski, Miss J., 55 Bradbourne Street, Fulham, SW6 3TF
- 1974 Oakley, G. R. C., Willesden Vicarage, Neasden Lane, N.W.10.
- 1954 (*) Oldfield, P. J., 45 Ridgmount Gardens, W.C.1.
- 1954 Orme, Miss M. L., 23 Mayfield Avenue, Old Southgate, N.14.
- 1965 Orton, Mr. & Mrs. C. R., 39a Benhill Wood Road, Sutton, Surrey.
- 1958 Osman, C. A. E., 14 Fairgreen, Cockfosters, Barnet, Herts.
- 1970 Owen, Mrs. E., 74 Kew Green, Richmond, Surrey.
- 1970 Page, Mr. & Mrs. R. C. S., 22 Stilchall Gardens, Chiswick, W.4.
- 1954 (*) Pallan, Miss H. K., 179 Makepeace Mansions, Holly Lodge Estate, Highgate, N.6.
- 1972 (s) Palmer, Miss J., Flat 3b, 31 Colville Square, W11 2BG
- 1972 Pam, D. O., 44 Chase Green Avenue, Enfield, Middlesex.
- 1973 Pantlin, D. H., 19 Uplands Way, Grange Park, N.21.
- 1974 Parkin, E. K., B.A., 46 Shelley Crescent, Heston Middlesex.
- 1971 Parmiter, G. de C., M.A., The Halt, Hanwell, near Banbury, Oxon.
- 1968 Pavasars, Miss D., 17 Beaufort Gardens, N.W.4.
- 1973 Pearce, Mrs. E. A. S., Garden Flat, 18 Hillfield Road, N.W.6.
- 1961 (*) Pearce, J. A. C., B.A., LL.B., 32 Brompton Square, S.W.3.
- 1974 Pearcey, O. H. J., 14 Mark Mansions, Westville Road, W.12.
- 1972 Pearl, Dr. V., M.A., D.Phil., University College London, Dept. of History, Gower Street, WC1E 6BT
- 1965 Pearse, Mrs. E. A., 60 Greenlands Road, Staines, Middlesex.
- 1974 Pedder, D. J., 129 Westrow Drive, Barking, Essex.
- 1973 Penberthy, H. T. S. V., M.Sc., 34a High Street, Harrow on the Hill, Middlesex.

List of Members

- 1967 Penn, R. G., M.B., B.Ch., 17 Cuckoo Hill Road, Pinner, Middlesex.
- 1950 Percival, Mr. & Mrs. A. J., 22 Stone Street, Faversham, Kent.
- 1973 Perry, P. A., M.A., 37 Dudley Road, Bedford, MK40 3TA
- 1961 Pettman, I. S., F.R.S.A., 21 Cleaver Square, S.E.11.
- 1975 Petzoldt, H. H., 11 The Mount, Oatlands Drive, Weybridge, Surrey, KT13 9LT
- 1975 (s) Petzoldt, Miss K. A., 11 The Mount, Oatlands Drive, Weybridge, Surrey, KT13 9LT
- 1972 Phelan, Miss E., 5 Gambole Road, S.W.17.
- 1970 Phillips, Miss D. J., 18 St. James's Gardens, W.11.
- 1974 Phillips, P., 22 Queen Anne's Place, Bush Hill Park, Enfield, EN1 2PT
- 1968 Phillips, Miss S. F., Flat 5, 20 Streatham Common North, S.W.16.
- 1975 Platts, Miss E., 9 Crooms Hill, Greenwich, S.E.10.
- 1970 Plender, G., A.C.I.S., 64 Woodmansterne Road, Streatham, S.W.16.
- 1973 Pond, Miss B. K., Flax Bourton, Easthampstead, Bracknell, Berks.
- 1960 Pope, Mrs. K. M., B.A., 82 Gloucester Court, Kew Road, Kew, Richmond, Surrey.
- 1974 Pottinger, Mrs. R. L., 37 Southwold Mansions, Widley Road, W9 2LE
- 1967 Powell, A. C., A.C.I.I., 18 Pretoria House, Rodwell Close, Eastcote, Ruislip, Middlesex.
- 1975 Powell, Miss J. V., Fishbourne Farm House, Old Fishbourne, Chichester, Sussex, PO18 8AW
- 1968 Price, Miss C. B. B., Physiotherapy Dept., Hornsey Central Hospital, Park Road, N.8.
- 1972 (s) Price, Mrs. L., 3459 Maricourt #5, Ste Foy, P.Q., Canada.
- 1956 Prosser, R. J., 3 Bears Lane, Hingham, Norwich, NOR 23X
- 1974 Pye, R. G. W., 58 Manor Road, Barnet, Herts.
- 1930 (*) Quarrell, W. J. C., M.A., Via Bruxelles 67, Rome, Italy.
- 1972 Rach, Miss I. B., 5 Neale Close, East Finchley, N2 0LE
- 1971 Radley, W. E., 8 Bourne House, Notre Dame Estate, Clapham Common, SW4 9QN
- 1966 (*) Ray-Jones, Mrs. E. I., 8 Linton House, 11 Holland Park Avenue, W.11.
- 1969 Read, C. J., 41 Seymour Road, S.W.18.
- 1974 Rea-Price, W. J., 110 Gordon Hill, Enfield, Middlesex.
- 1974 Rendall, Mr. & Mrs. J. S., 35 Malvern Drive, Woodford Green, Essex, IG8 0JR
- 1957 Rennie, Mr. & Mrs. H. M., 42 Heathfield Court, Chiswick, W.4.
- 1957 Reynolds, Miss S., M.A., 26 Lennox Gardens, S.W.1.
- 1974 Rhodes, M., B.Ed., Guildhall Museum, 55 Basinghall Street, E.C.2.
- 1973 Richards, Mrs. E. A., 21 Adolphus Road, Finsbury Park, N.4.
- 1975 Richardson, C. E., 16a Wrythe Lane, Carshalton, Surrey.
- 1971 Richardson, J., 15 Rosebury Road, N.10.
- 1966 Rivis, R. G. L., 42 Hamilton Road, Boscombe, Bournemouth, Hants.
- 1974 Robbins, Miss E. A., B.A., M.Phil., 43 Campden Hill Towers, Notting Hill Gate, W11 3QW
- 1947 Robbins, Mr. & Mrs. R. M., 7 Courthorpe Villas, Worpole Road, Wimbledon, SW19 4EH
- 1972 Roberts, B., 20 Tudor Court South, Wembley, Middlesex, HA9 6SQ
- 1964 Robertson, B., 2 Myddelton Square, E.C.1.
- 1952 Robins, H. E., B.A., F.R.G.S., 3 Cameron House, Highland Road, Bromley, Kent.
- 1971 Robinson, G. W., 14 Orchard Crescent, Edgware, Middlesex.
- 1936 (*) Robinson, H. H., Eversley, Nightingale Road, Rickmansworth, Herts.
- 1972 Robinson, R. A., 26 Irving Road, W.14.
- 1970 Rodwell, W. J., B.A., D.L.C., F.S.A.(Scot.), Institute of Archaeology, 35 Beaumont Street, Oxford, OX1 2PG
- 1967 (*) Rosenfield, Dr. M. C., A.B., A.M., Ph.D., Old Marion Road, Mattapoisett, Mass. 02739, U.S.A.
- 1974 (s) Rosewarne, Miss S., 26 Latchett Road, South Woodford, E18 1DJ
- 1973 Ross, Miss E. M., B.Sc., c/o Nurses' Post Room, St. Thomas's Hospital, SE1 7EH
- 1945 (*) Rubinstein, S. J., Savage Club, 86 St. James's Street, S.W.1.
- 1973 (j) Rundle, Miss L. A., 10 Arkindale Road, SE6 2SW
- 1972 (ii) Russell, Miss D., 16 St. Michael's Road, Verwood, Wimbourne, Dorset.
- 1968 Russell, R. J., F.C.A., 24 Mayflower Way, Holtspur, Beaconsfield, Bucks.
- 1960 Ryall, R. B., 12c Bolton Gardens, S.W.5.
- 1971 (*) Salkeld, J. A., 13 Woodhall Drive, S.E.21.
- 1969 Sammes, E., 38 Burnham Court, Brent Street, Hendon, NW4 2RE
- 1973 Samways, R. E., B.A., 34 Manchester Street, W.1.
- 1975 (*) Sanders, Miss H. J., B4 Makepeace Mansions, Highgate, N6 6ER
- 1973 (*) Saunders, Mrs. A. L., Ph.D., 3 Corringway, NW11 7ED
- 1972 (s) Saunders, J., 66 Woodfield Avenue, Streatham, SW16 1LD
- 1970 Savage, A., 63 Alicia Avenue, Harrow, HA3 8HT
- 1973 Schwab, Miss I., 42 Oakford Road, N.W.5.
- 1974 (s) Schofield, Miss L., 58 Mount Pleasant, Alperston, Wembley, Middlesex, HA0 1UG
- 1948 (*) Scouloudi, Miss I., M.Sc., F.S.A., 67 Victoria Road, W.8.
- 1973 Sells, Miss M. E., 61 Riverway, Palmers Green, N13 5JU
- 1965 Selwyn, B., A.R.I.C.S., 2nd Floor, 3 Hogarth Road, SW5 0QH
- 1973 Shave, Mrs. J. M., 27 Lawrence Road, Pinner, Middlesex, HA5 1LH
- 1968 Sheldon, H. L., B.Sc., 108a Great Guildford Street, S.E.1.
- 1974 Shelton, Miss D. M., M.B., M.R.C.P., Flat 3, 122 Stamford Hill, N.16.
- 1973 Sherrieff, R. C., Rose Briars, Esher Park Avenue, Esher, Surrey.
- 1967 Sills, M. C., 122 Empire Avenue, Edmonton, N.18.
- 1975 Sims, Miss H. B., 31 Hill Court, Putney Hill, SW15 6BB
- 1975 Sinfield, Miss I. K., 69 Donegal House, Cambridge Heath Road, E1 5QS
- 1974 Slade, Mr. & Mrs. J., 20 Bendemeer Road, S.W.15.
- 1932 (*) Smith, E. E. F., F.S.A., 49 Mayford Road, SW12 8SE
- 1970 Smith, Mrs. E. E. F., 49 Mayford Road, SW12 8SE
- 1975 (s) Smith, Miss J. M., 83 Chatsworth Road, NW2 4BH
- 1973 Smith, Miss M. H., B.A., 12 Onslow Gardens, Grange Park, N21 1DX
- 1974 Smith, R. R. P., B.Sc., 64 Purley Bury Avenue, Purley, Surrey. CR2 1JD

List of Members

- 1975 (*) Smith, S. P., 15 Rossiter Road, S.W.12.
1954 Smith, T. H., Ph.D., M.Th., B.D., 48 Perryn Road, W.3.
1968 Smith, W. J., M.A., F.R.Hist.S., Greater London Record Office, The County Hall, London, SE1 7PB
1965 Snell, L. S., M.A., F.S.A., F.R.Hist.S., F.R.S.A., 27 Weoley Hill, Selly Oak, Birmingham, B29 4AA
1975 Snell, P. J., M.A., 14 Lawrence Road, Pinner, Middlesex, HA5 1LH
1973 Spencer, G. J., 54 Hamilton Road, Brentford, Middlesex.
1970 Spencer-Hess, Miss V., 93 Richmond Hill Court, Richmond, Surrey.
1974 Spires, Miss S. M., 9 Barnes Avenue, SW13 9AA
1971 Springbett, Miss S., B.A., 42a Camden Square, N.W.1.
1967 Spry, Mrs. M. R., 1 New River Crescent, N.13.
1975 Stage, Mrs. E. R., 150 Fulwell Road, Twickenham, Middlesex.
1967 (*) Starley, H. G., C.B.E., Champion Sparking Plug Co. Ltd., Feltham, Middlesex.
1973 Stavrou, Miss G., B.A., A.L.A., DO2, Du Cane Court, Balham, SW17 7JQ
1971 Steer, F. W., M.A., F.S.A., 63 Orchard Street, Chichester, Sussex.
1971 (j) Stent, C. J., 49 Newington Green, N.16.
1970 (*) Stephenson, Miss D. M., B.A.(Hons.), 52 Northlands Avenue, Orpington, Kent.
1974 Stevenson, Miss J. I., 28a Crookham Road, SW6 4EQ
1971 Stevenson, Miss P. J., 27 Heathfield Road, Mill Hill Park, Acton, W.3.
1963 Stiassna, Dr. E., Ph.D., Flat 55, 20 Abbey Road, N.W.8.
1975 Stocker, I. G. S., M.A., 31 Cromwell Avenue, Highgate, N6 5HN
1973 Stokes, Mr. & Mrs. M. A., Flat 5, 66 Shepherds Hill, Highgate, N6 5RN
1952 Stokes, Miss M. V., 3 York Street, W.1.
1973 Stone, Miss P. M., 417 Westbourne Grove, West-cliff, Essex.
1966 Stonebridge, A. J. D., F.L.A., 1 Cranley Drive, Ruislip, Middlesex.
1973 Stukenbrocker, D., B.A., 13d Tysoe Street, E.C.1.
1974 Sudul, K. M., 5 Gould Road, Bedford, Middlesex, TW14 8AB
1972 Sutcliffe, Miss E., 225 Temple Chambers, Temple Avenue, E.C.4.
1967 Sutton, Mrs. B. A., 27 Barnes Wallis Court, Barnhill Road, Wembley, Middlesex.
1972 Swadling, Mrs. P. M. A., White Cottage, Dunally Park, Shepperton.
1970 Swale, J. D., 54 Cranbrook Road, Thornton Heath, Surrey, CR4 8PP
1972 Swift, N. F., 82a St. Peter's Street, N.1.
1970 Symberlist, R., 5 Muswell Hill Road, N.10.
1956 (H) Tanner, L.E., C.V.O., M.A., Litt.D., F.S.A., 32 Westminster Mansions, Great Smith Street, S.W.1.
1950 Tatham, F. H. C., B.A., 35 Little Common, Stanmore, Middlesex.
1974 Tatton-Brown, T., Fisherton Mill House, Mill Road, Salisbury, Wilts.
1973 (s) Taylor, Miss A., B.A., 10 Brockley Rise, SE23 1PR
1970 Taylor, A. J., C.B.E., M.A., D.Litt., F.B.A., Pres S.A., F.R.Hist.S., Rose Cottage, Lincoln's Hill, Chiddingfold, Surrey, GU8 4UN
1962 Taylor, M. J., B.A., A.L.A., 16 Ranger's Square, Hyde Vale, Greenwich, S.E.10.
1974 Thompson, Mrs. J. M., 41 Howley Road, Catford, SE6 2HY
1969 Thompson, M.,
1951 Thompson, Miss P. J., B.A.(Hons.), 6 Wolston-bury, Woodside Park, N.12.
1973 Tite, G. L., M.A., M.Sc., 174 Holland Park Avenue, W.11.
1974 Toller, H. S., 235 New North Road, N.1.
1949 (*) Towell, Mrs. F. M., F.L.A., 66 Tanfield Avenue, N.W.2.
1956 Treacher, Miss M., Flat 40, Chalkwell Lodge, 600 London Road, Westcliff-on-Sea, Essex, SSo 9HT
1975 Trewick, Miss A. E., 88 Western Way, Barnet, Herts., EN5 2BT
1967 Tribe, A., F.C.A., A.T.I.I., 404 Willoughby House, Barbican, EC2Y 8BN
1973 Tucker, C. J., 60 Wavertree Road, Benfleet, Essex.
1973 Tupper, M. C., 2 Gosberton Road, SW12 8LF
1950 (*) Turner, C. C. C.,
1969 Turner, Mr. & Mrs. G., 2 Glenmore Lawns, 71 Argyle Road, Ealing, W.13.
1975 Twells, Miss D., 34 Blythe Hill, Catford, S.E.6.
1973 Tydeman, Miss S., The Watch House, Giltspur Street, EC1A 9DE
1974 Tyers, P. A., 22 Harlington Road East, Feltham, Middlesex, TW14 oAB
1960 Upperton, Mrs. M., A.L.A., 22 Belmont Road, South Norwood, S.E.25.
1974 Venthams, M. J., A.C.A., 8 Bray Court, Madeira Road, Streatham, S.W.16.
1965 Vincent, Miss P. M. S., Flat 6, 59 Mount Ararat Road, Richmond, Surrey.
1973 Walker, Mrs. G. C., B.Sc., M.P.S., 89 Fairholt Road, N16 5EP
1973 Waller, F. J. S., 49 Broad Lane, Hampton, Middlesex. TW12 3AX
1973 Walter, M. T., 32 Goldsmith Road, Leyton, E.10.
1956 Walton, Miss G., 688 Pinner Road, Pinner, Middlesex.
1973 Wareham, D. F., 68c Chesilton Road, Fulham, SW6 5AB
1974 Warren, A. S., 26 Pemberton Avenue, Gidea Park, Romford, Essex, RM2 6EX
1965 Warren, S. E., 10 Dungarvon Avenue, Putney, S.W.15.
1937 Watson, H. J., 50 Rutland Gardens, Hove 3, Sussex.
1972 (s) Watts, Miss S., 25 Wilton Road, Beaconsfield, Bucks.
1968 Waugh, C. J., A.R.I.C.S., 30 Fullers Road, Woodford, E.18.
1969 (H) Webb, D. R., B.A., A.L.A., Reference Library, Bishopsgate Institute, 230 Bishopsgate, EC2M 4QH
1974 (s) Weeks, Miss A. K., 137 Tokyngton Avenue, Wembley, Middlesex, HA9 6HA
1973 (s) Weeks, Miss J. A., 8 The Grove, Highgate Village, N6 6JU
1973 Welch, Miss J. M., 28 Southwold Mansions, Widley Road, Maida Vale, W.9.
1975 Welch, Miss M. L. H., The Penn Club, 22 Bedford Place, WC1B 5JH
1974 Wells, Mrs. C. N., 35 Haldane Road, Fulham, SW6 7EY
1973 Wellsman, J. S., Prospect Cottage, The Common, Flackwell Heath, Bucks.
1970 Wheatley, N. R., F.R.I.C.S., 177 Hampstead Way, N.W.11.

List of Members

- 1968 Wheeler, Miss P. M., B.A., 27 Tyrell's Close, Upminster, Essex, RM14 2QA
- 1937 (H) Wheeler, Sir R. E. M., C.H., C.I.E., T.D., M.C., M.A., D.Litt., F.R.S., F.B.A., F.S.A., c/o The British Academy, Burlington House, London, W1V 0NS
- 1965 Whitby, Mr. & Mrs. G., Friars Lawn, Norwood Green Road, Southall, Middlesex.
- 1975 (J) White, Miss F., 47 Bassett Road, W10 6JX
- 1974 White, Miss J. M., B.Sc., 56 Crediton Hill, NW6 1HR
- 1937 (*) Whitehorn, Mrs. E. L., 321 Brownhill Road, Catford, S.E.6.
- 1974 Whitehouse, K. R., 56 Tamworth Street, S.W.6.
- 1974 Whiting, J. P. M., 1 Simcrest Avenue, Killamarsh, Derbyshire, S31 8FD
- 1949 (*) Whitting, P. D., G.M., B.A., D.Litt., 9 Rivercourt Road, Hammersmith, W.6.
- 1974 Wilkinson, Mrs. A. M., 26 Golders Rise, Hendon, NW4 2HR
- 1974 Williamson, Miss H., B.A., 27 Neale Close, Ossulton Way, N.2.
- 1970 (S) Winham, R. P., 7 Hillside Crescent, Northwood, Middlesex.
- 1974 Winsor, Miss A. J., B.A., A.L.A., 68b Twisden Road, N.W.5.
- 1974 Wood, Miss M., 18 Broomfield Lane, Palmers Green, N13 4HB
- 1973 Woodage, W. E., 5 Fifehead Close, Ashford, Middlesex.
- 1975 Woods, C. D., 4 Latham Close, Biggin Hill, Westerham, Kent.
- 1971 Woon, C. D. D., M.A., 29 Furlong Road, N.7.
- 1974 Wrennall, Mrs. J., 34 Canadian Avenue, Catford, SE6 3AS
- 1971 Wright, Miss A. D., B.A., 37 Phillimore Gardens, W.8.
- 1974 Wright, B. J., A.I.S.T., 33 Kent House, Devonshire Road, Chiswick, W.4.
- 1965 Wulcko, L. M., 39 Bottrells Lane, Chalfont St. Giles, Bucks.
- 1974 (S) Yeats, M. F., 37 Copthorne Road, Felbridge, East Grinstead, Sussex, RH19 2NX
- 1975 Yonge, R. I., 36 Stanwell Road, Ashford, Middx.
- 1963 (*) Zaharova, Miss A., 15 Struan House, High Street, Wanstead, E.11.

INSTITUTIONAL MEMBERS

- 1950 Acton District Library, High Street, Acton, W.3.
- 1958 All Saints, Tottenham, The College of, White Hart Lane, N.17.
- 1966 Australia, National Library of, Canberra ACT2600, Australia.
- 1929 Barnet Central Library, The Burroughs, N.W.4.
- 1914 Battersea District Library, 265 Lavender Hill, S.W.11.
- 1920 Birkbeck College Library, Malet Street, W.C.1.
- 1898 Birmingham Public Libraries, Serials Section, Central Library, Birmingham, B3 3HQ
- 1912 Bishopsgate Institute Reference Library, 230 Bishopsgate, E.C.2.
- 1973 Blackheath High School, Wemyss Road, S.E.3.
- 1973 Borough Road College Library, Isleworth, Middlesex.
- 1971 Boston Athenaeum, Library of the, 10½ Beacon Street, Boston, Mass. 02108, U.S.A.
- 1905 Brent Central Library, Willesden Green, N.W.10.
- 1973 Brentford School for Girls, Clifden Road, Brentford, Middlesex.
- 1955 Brewers' Company, Brewers' Hall, Aldermanbury Square, E.C.2.
- 1974 British Library, Accessions Dept., Lending Division, Walton, Boston Spa, Lincs., LE23 7BQ
- 1955 Carpenters' Company, Carpenters' Hall, Throgmorton Avenue, E.C.2.
- 1920 Chiswick Public Library, Duke's Avenue, W.4.
- 1966 Church of Jesus Christ of Latter-Day Saints, Genealogical Society, 107 South Main Street, Salt Lake City, Utah, U.S.A.
- 1967 Clapham County School, Broomwood Road, S.W.11.
- 1950 Cleveland Public Library, 325 Superior Avenue, Cleveland 14, Ohio, U.S.A.
- 1955 Clothworkers' Company, Clothworkers' Hall, Mincing Lane, E.C.3.
- 1967 Coborn School, 27 Bow Road, E.3.
- 1967 Collingwood Secondary School, York Grove, Queen's Road, S.E.15.
- 1874 Congress, Library of, Order Division 8130X, Washington D.C., 20540, U.S.A.
- 1955 Coopers' Company, 13 Devonshire Square, E.C.2.
- 1966 Cornell University Library, Ithaca, New York, U.S.A.
- 1952 Cutlers' Company, Cutlers' Hall, Warwick Lane, E.C.4.
- 1974 Department of the Environment Library, Room G13, Fortress House, 23 Savile Row, W.1.
- 1975 Digby Stuart College, Roehampton Lane, S.W.15.
- 1948 Drapers' Company, Drapers' Hall, Throgmorton Street, E.C.2.
- 1951 Dyers' Company, Dyers' Hall, Dowgate Hill, E.C.4.
- 1950 Ealing Central Library, Walpole Park, W.5.
- 1967 Ealing Technical College, St. Mary's Road, W.5.
- 1950 Edmonton Central Library, Fore Street, Edmonton, N.9.
- 1967 Elliott School, Pullman Gardens, S.W.15.
- 1950 Enfield Central Library, Cecil Road, Enfield, Middlesex.
- 1906 Enoch Pratt Free Library, George Peabody Dept., 17 East Mount Vernon Place, Baltimore, Maryland 21202, U.S.A.
- 1950 Finchley Central Library, Hendon Lane, Finchley, N.3.
- 1951 Fishmongers' Company, Fishmongers' Hall, E.C.4.
- 1972 Fort Wayne Public Library, Order Division, 900 Webster Street, Fort Wayne, Indiana 46802, U.S.A.
- 1922 Fulham Central Library, 598 Fulham Road, S.W.6.
- 1955 Girdlers' Company, Girdlers' Hall, Basinghall Avenue, E.C.2.
- 1950 Goldsmiths' Company, Goldsmiths' Hall, Foster Lane, E.C.2.
- 1929 Greater London Council, Members' Library, County Hall, S.E.1.
- 1957 Greater London Record Office (Middlesex Records), 1 Queen Anne's Gate Buildings, Dartmouth Street, S.W.1.
- 1955 Grocers' Company, Grocers' Hall, Princes Street, E.C.2.
- 1911 Guildhall Library, Guildhall, E.C.2.
- 1960 Gunnersbury Park Museum, W.3.

List of Members

- | | | | |
|----------|--|------|--|
| 1955 | Haberdashers' Company, Haberdashers' Hall, Staining Lane, E.C.2. | 1966 | Property Services Agency, Dept. of the Environment, Fortress House, 23 Savile Row, W.1. |
| 1971 | Hackney, London Borough of, Archives Dept., Shoreditch District Library, Pitfield Street, N.1. | 1943 | Public Record Office, Chancery Lane, W.C.2. |
| 1965 | Harrow Central Reference Library, Gayton Road, Harrow, Middlesex. | 1950 | Queen Mary College Library, Mile End Road, E.1 |
| 1914 | Harvard College Library, Cambridge, Mass., U.S.A. | 1975 | St. Pancras Library, Reference Library, 100 Euston Road, N.W.1. |
| 1970 | History & Social Sciences Teachers Centre, I.L.E.A., 377 Clapham Road, S.W.9. | 1952 | Saddlers' Company, Saddlers' Hall, Gutter Lane, E.C.2. |
| 1948 | Holborn Central Library, 32-38 Theobald's Road, W.C.1. | 1950 | Salters' Company, 36 Portland Place, W.1. |
| 1939 | Hornsey Central Library, Tottenham Lane, N.8. | 1877 | Sion College Library, Victoria Embankment, E.C.4. |
| 1937 | Huntingdon Library & Art Gallery, San Marino, California 91108, U.S.A. | 1967 | Sir John Cass Foundation & Red Coat Secondary School, Stepney Way, E.1. |
| 1968 | Indiana University Library, Serials Division, Bloomington, Indiana 47401, U.S.A. | 1952 | Society of Apothecaries of London, Black Friars Lane, E.C.4. |
| 1955 | Innholders' Company, Innholders' Hall, College Street, E.C.4. | 1951 | Southall District Library, Osterley Park Road, Southall, Middlesex. |
| 1926 | Institute of Historical Research, The Senate House, W.C.1. | 1973 | Southlands College, The Librarian, Wimbledon Parkside, SW19 5NN |
| 1944 (*) | Islington Central Library, 68 Holloway Road, N.7. | 1951 | Spectaclemakers' Company, Apothecaries' Hall, Black Friars Lane, E.C.4. |
| 1953 | Joiners' Company, 14 Parkway, Southgate, N.14. | 1974 | Spelthorne Borough Council, Knowle Green, Staines, Middlesex. |
| 1917 | Kensington Central Library, Phillimore Walk, W.8. | 1965 | Stanford University Library, Stanford, California, U.S.A. |
| 1950 | Lambeth Tate Central Library, Brixton Oval, S.W.2. | 1952 | Stationers' & Newspaper Makers' Company, Stationers' Hall, E.C.4. |
| 1968 | La Retraite High School, Atkins Road, Clapham Park, S.W.4. | 1963 | Stockwell College Library, The Old Palace, Bromley, Kent. |
| 1955 | Leathersellers' Company, Leathersellers' Hall, St Helen's Place, E.C.3. | 1975 | Swiss Cottage Library (Local History Dept.), 88 Avenue Road, N.W.3. |
| 1960 | Lewisham Central Library, Archives & Local History Dept., The Manor House, Old Road, Lee, SE13 5SY | 1975 | Swiss Cottage Library (Reference Dept.), 88 Avenue Road, N.W.3. |
| 1951 | London Library, 14 St. James's Square, S.W.1. | 1951 | Tallow Chandlers' Company, Tallow Chandlers' Hall, Dowgate Hill, E.C.4. |
| 1950 | London Museum, Kensington Palace, W.8. | 1973 | Toronto Metropolitan Central Library, History Section, 214 College Street, Toronto, Ontario, Canada, M5T 1R3 |
| 1962 | London Society, 4 Carmelite Street, EC4Y 0BN | 1935 | Tottenham Central Library, High Road, Tottenham, N.17. |
| 1958 | Maria Grey Training College, 300 St. Margaret's Road, Twickenham, Middlesex. | 1950 | Tower Hamlets Central Library, Bancroft Road, E.1. |
| 1953 | Mercers' Company, Mercers' Hall, Ironmonger Lane, E.C.2. | 1968 | Trent Park College of Education, Cockfosters, Barnet, Herts. |
| 1950 | Merchant Taylors' Company, Merchant Taylors' Hall, Threadneedle Street, E.C.2. | 1952 | Turners' Company, Apothecaries' Hall, Black Friars Lane, E.C.4. |
| 1966 | Merton Public Libraries, Merton Cottage Church Path, Merton Park, S.W.19. | 1967 | Twickenham County Grammar School, Clifden Gardens, Twickenham. |
| 1957 | Michigan State University Library, East Lansing, Michigan, U.S.A. | 1936 | Twickenham Public Library, Garfield Road, Twickenham, Middlesex. |
| 1955 | Middlesex Society, 607 Rayners Lane, Pinner, Middlesex. | 1955 | Tylers' and Bricklayers' Company, 6 Bedford Row, W.C.1. |
| 1965 | Minet Library, Knatchbull Road, S.E.5. | 1921 | University College, London, The Library, Gower Street, W.C.1. |
| 1949 | Newberry Library, 60 West Walton Street, Chicago 10, Illinois, U.S.A. | 1964 | University of Chicago Library, 1100 East 57th Street, Chicago, Illinois 60637, U.S.A. |
| 1960 | Newington District Library, 155-7 Walworth Road, SE17 1RS | 1951 | University of Illinois Library, Urbana, Illinois 61801, U.S.A. |
| 1970 | New York University Libraries, Washington Square, New York 10003, U.S.A. | 1952 | University of Leicester Library, Leicester. |
| 1953 | Niedersächsische Staats-U., Prinzenstrasse 1, Göttingen, Germany. | 1942 | University of London, Goldsmiths Library, Senate House, W.C.1. |
| 1959 | Ohio State University Libraries, 1858 Neil Avenue, Columbus, Ohio 43210, U.S.A. | 1933 | University of Minnesota Library, Minneapolis 14, Minnesota 55455, U.S.A. |
| 1947 | Ordnance Survey, Archaeology Division, Romsey Road, Maybush, Southampton, Hants., SO9 4DH | 1966 | University of Missouri Library, Columbia, Missouri 65202, U.S.A. |
| 1938 | Paddington Public Library, Porchester Road, W.2 | 1957 | University of Nottingham Library, Nottingham. |
| 1951 | Pewterers' Company, Pewterers' Hall, Oat Lane, E.C.2. | 1951 | University of Pennsylvania Library, Philadelphia, Pennsylvania, U.S.A. |
| 1963 | Philippa Fawcett Training College, 94 Leigham Court Road, S.W.16. | 1964 | University of Sydney, Fisher Library, Sydney, N.S.W., Australia. |
| 1964 | Princeton University Library, Princeton, New Jersey, U.S.A. | | |

List of Members

- | | |
|--|--|
| <p>1969 University of Western Ontario Library, Lawson Memorial Building, London, Ontario, Canada.</p> <p>1966 University of Wisconsin Memorial Library, 728 State Street, Madison, Wisconsin 53706, U.S.A.</p> <p>1970 University of Wyoming Library, Laramie, Wyoming 82071, U.S.A.</p> <p>1955 Upholders' Company, 36 St. Andrew's Hill, E.C.4</p> <p>1965 Uxbridge Public Library, High Street, Uxbridge, Middlesex.</p> <p>1967 Victoria, State Library of, Swanston Street, Melbourne C.I., Australia.</p> <p>1959 Victoria and Albert Museum Library, Brompton Road, S.W.7.</p> <p>1950 Vintners' Company, Vintners' Hall, Upper Thames Street, E.C.4.</p> | <p>1968 Wall Hall College, Aldenham, Watford, Herts., WD2 8AT</p> <p>1914 Westminster Public Libraries, Marylebone Road, N.W.1.</p> <p>1974 Wheelwrights' Company, 31 Copthall Avenue, EC2R 7BP</p> <p>1962 Wilson's Grammar School, 14-16 Hanover Park, S.E.15.</p> <p>1966 Winchmore Secondary School, Laburnum Grove, N.21.</p> <p>1969 Wood Green School, White Hart Lane, N.22.</p> <p>1913 Yale University Library, New Haven, Connecticut 06520, U.S.A.</p> |
|--|--|

AFFILIATED SOCIETIES

- | | |
|---|--|
| <p>Barnet & District Local History Society, 6 Mount Grace Road, Potters Bar.</p> <p>Brentford & Chiswick Local History Society, 12a Bracken Gardens, Barnes, SW13 9HW</p> <p>Brockley Hill Excavation & Fieldwork Group, 14 Orchard Crescent, Edgware, HA8 9PW</p> <p>Camden History Society, St. Pancras Library, 100 Euston Road, NW1 2AJ</p> <p>City of London Archaeological Society, 13 Princess Court, 115 Hartfield Road, Wimbledon, S.W.19.</p> <p>Clapham Antiquarian Society, 49 Mayford Road, SW12 8SE</p> <p>East London History Group, 18 Hawkdene, Chingford, E4 7PF</p> <p>Edmonton Hundred Historical Society, 230 Boundary Road, Wood Green, N22 6AJ</p> <p>Eltham Society, 29 Red Lion Lane, Shooters Hill, SE18 4LD</p> <p>Enfield Archaeological Society, 64 Faversham Avenue, Bush Hill Park, Enfield.</p> <p>Enfield Preservation Society Ltd., 107 Parsonage Lane, Enfield, EN2 0AB</p> <p>Fulham Archaeological Research Group, 56 Tamworth Street, S.W.6.</p> <p>Fulham & Hammersmith History Society, Central Library, 598 Fulham Road, S.W.6.</p> <p>Greenwich & Lewisham Antiquarian Society, 41 Thaxted Road, S.E.9.</p> <p>Hayes & Harlington Local History Society, 60 Park Lane, Hayes, Middlesex.</p> <p>Hendon & District Archaeological Society, 88 Temple Fortune Lane, N.W.11.</p> <p>Holborn Society, 3 Belvedere Court, Catherine Road, Surbiton, KT6 4HB</p> <p>Hornsey Historical Society, 142 Peabody Estate, Tottenham, N.17.</p> <p>Hounslow & District History Society, 42 Parkfield Road, Feltham, Middlesex, TW13 7LG</p> <p>London Natural History Society, 12 Northstead Road, SW2 3JW</p> | <p>Mill Hill & Hendon Historical Society, 22 Elmgate Gardens, Edgware, Middlesex.</p> <p>Northolt Archaeological & Historical Research Group, 21 Islip Gardens, Northolt, Greenford, Middlesex.</p> <p>Pinner Association, 42 Highview, Pinner, Middlesex.</p> <p>Pinner & Hatch End Local Historical & Archaeological Society, 66 Waxwell Lane, Pinner, Middlesex.</p> <p>Potters Bar Historical Society, 83 Byng Drive, Potters Bar, Herts.</p> <p>Ruislip, Northwood & Eastcote Local History Society, 7 Chippenham Close, Eastcote, Pinner, Middlesex.</p> <p>St. George's Rambling Society, 26 Wood Gavil, Banstead, Surrey.</p> <p>St. Marylebone Society, 1 Cranley Drive, Ruislip, Middx.</p> <p>Southgate Civic Trust, 64 Hounsden Road, Winchmore Hill, N.21.</p> <p>Southwark & Lambeth Archaeological Society, 94 Hubert Grove, S.W.9.</p> <p>Staines Local History Society, 196 Clare Road, Stanwell, Middlesex, TW19 7EG</p> <p>Stanmore, Edgware & Harrow Historical Society, 38 Sparrows Herne, Bushey, Herts.</p> <p>Sunbury & Shepperton Local History Society, 25 Staines Road, Laleham, Staines, Middlesex.</p> <p>Twickenham Local History Society, 12 Clarence Road, Teddington, Middlesex.</p> <p>Uxbridge Local History Society, 14 Cornwall Road, Uxbridge, Middlesex.</p> <p>Waltham Abbey Historical Society, 25 Monkswood Avenue, Waltham Abbey, Essex.</p> <p>Wandsworth Historical Society, 102 Disraeli Road, S.W.15</p> <p>Wembley History Society, 25 Thomas a Becket Close, Sudbury, Wembley, Middlesex.</p> <p>West Drayton Local History Society, 29 Copse Drive, Wokingham, Berks., RG11 1NA</p> <p>West London Archaeological Field Group, 82 May Road, Twickenham, Middlesex.</p> |
|---|--|

LIST OF SOCIETIES AND INSTITUTIONS IN UNION FOR INTERCHANGE OF PUBLICATIONS ETC.

- | | |
|---|--|
| <p>Academica Sinica, Pekin.</p> <p>Academy of Sciences of U.S.S.R.</p> <p>Berkshire Archaeological Society.</p> <p>Birmingham Archaeological Society.</p> <p>Bristol and Gloucestershire Archaeological Society.</p> <p>Buckinghamshire Architectural and Archaeological Society.</p> <p>Cambridge Antiquarian Society.</p> <p>Cardiff Naturalists' Society.</p> <p>Carmarthenshire Antiquarian Society.</p> <p>Chester Archaeological Society.</p> <p>Cumberland and Westmorland Antiquarian and Archaeological Society.</p> | <p>Czecho-Slovak Academy of Archaeology, Brno.</p> <p>Czecho-Slovak Institute of Archaeology.</p> <p>Derbyshire Archaeological and Natural History Society.</p> <p>Dorset Natural History and Archaeological Society.</p> <p>Durham and Northumberland Architectural and Archaeological Society.</p> <p>Dutch State Service for Archaeology.</p> <p>East Herts. Archaeological Society.</p> <p>Ecclesiological Society.</p> <p>Essex Archaeological Society.</p> <p>Essex Field Club.</p> <p>Hampshire Field Club.</p> |
|---|--|

List of Members

Historical Society of Lancashire and Cheshire.
Hungarian Academy of Sciences.
Institute of Archaeology.
Isle of Man Antiquarian Society.
Jugoslav Academy of Sciences.
Kent Archaeological Society.
Lincolnshire Local History Society.
Norfolk and Norwich Archaeological Society.
Oxford Historical and Architectural Society.
Oxfordshire Archaeological Society.
Queen's University of Belfast.
Royal Irish Academy, Dublin.
St. Albans and Herts. Archaeological Society.
Shropshire Archaeological Society.
Smithsonian Institute, Washington, U.S.A.
Société Archéologique de Liège.
Society of Antiquaries of Newcastle-on-Tyne.
Society of Antiquaries of London.

Society of Genealogists.
Somerset Archaeological and Natural History Society.
Stamford and Rutland Archaeological Society.
Surrey Archaeological Society.
Sussex Archaeological Society.
University of Birmingham.
University of Lodz, Poland.
University of Lund, Sweden.
Worcestershire Archaeological Society.
Yorkshire Archaeological Society.

The following Libraries receive a copy of each publication:

British Museum.
Bodleian, Oxford.
Cambridge University.
Dublin (Trinity College)
National Library of Scotland, Edinburgh.
National Library of Wales, Aberystwyth.

The London Archaeologist

LONDON'S ONLY ARCHAEOLOGICAL MAGAZINE

The Independent Quarterly Magazine covering recent developments in the
Archaeology and Allied History of the London Region

The London Archaeologist is sponsored by the leading
archaeological and historical societies in the
London region. Each issue will include reports of the most
recent archaeological discoveries, articles on important
topics by research workers, notes on societies' projects,
details of current excavations, forthcoming events
and many other items of interest

*The London Archaeologist is published in March, June, September and
December: the annual subscription is £1.00 (U.S. and Canada \$6)*

Apply to:

Mrs M. Petchey, Subscription Sec., 92 Kingsway, West Wickham, Kent

WORDENS OF CORNWALL LTD.

PARADE STREET PENZANCE

THE DEPARTMENT OF URBAN ARCHAEOLOGY MUSEUM OF LONDON
CHIEF URBAN ARCHAEOLOGIST: BRIAN HOBLEY

THE EXCAVATION OF A ROMAN PALACE SITE IN LONDON, 1961-1972

BY PETER MARSDEN

CONTENTS

	<i>page</i>
SUMMARY	I
INTRODUCTION AND ACKNOWLEDGEMENTS	2
LOCATION OF THE SITES	3
HISTORY OF ARCHAEOLOGICAL DISCOVERY AND RECORDING ON SITE	3
THE PHYSICAL GEOGRAPHY OF THE SITE	6
THE PRE-PALACE PHASE:	
Area 1 9	9
Area 2 9	9
Area 3 9	9
Area 4 9	9
Discussion	13
THE ROMAN PALACE	
Area 1 14	14
Area 2 22	22
Area 3 27	27
Area 4 36	36
Area 5 42	42
Area 6 44	44
Area 7 51	51
Area 8 52	52
Area 9 54	54
Dating evidence for the Palace phase	60
Discussion	62
DESTRUCTION OF THE PALACE AND REBUILDING ON ITS SITE	
Area 1 73	73
Area 2 73	73
Area 3 76	76
Area 5 77	77
THE FINDS	
Dating evidence (a) coarse pottery	79
(b) samian ware	96
Small finds	96

SUMMARY

The site is situated on the hillside overlooking the Thames, first occupied from about the middle of the first century A.D. to the early Flavian period. At the top of the slope during this period there was apparently a *timber building, possibly of military type, used for storage*, while, about the early Flavian period, a goldsmith seems to have had a workshop lower down the slope, for refining gold. It is possible that this latter activity may represent some official use of the site by the Roman provincial administration.

During the Flavian period, perhaps under the governorship of Agricola, the hillside was terraced for the construction of an enormous official palatial residence containing a large ornamental garden and several reception rooms of monumental proportions. It is concluded that this was probably the residence of the Roman Governor of Britain, built at a time when Londinium was, as a deliberate act of policy, enlarged and modified to become the capital city of the province of Britain.

Major alterations later occurred before the state rooms were eventually demolished and the pool was filled in, to be replaced by another Roman building or buildings of more modest proportions. On the evidence of a coin the south wing of the palace could not have been filled in before about A.D. 270; and this may have occurred during the fourth century. The periods of the modifications and rebuilding are too vague for any conclusions to be reached, but they presumably reflect the political situation of the time.

INTRODUCTION AND ACKNOWLEDGEMENTS

This report contains the results of several archaeological investigations undertaken over a period of 11 years, and I am particularly grateful to the many people who have contributed to the study, both on site and in post-excavation work. Firstly, my thanks are due to my Guildhall Museum colleagues in general, and in particular to Ralph Merrifield, who has not only undertaken a little site recording during my absence, but with whom many fruitful discussions have occurred. Thanks are also due to Gordon Davies, formerly of the Museum, who also undertook a little of the site recording; and to Hugh Chapman.

It is to the many volunteers of the former City of London Excavation Group that the greatest debt is owed, however, because at a time when it was not policy to finance archaeological investigation, they not only provided the labour, much of it sheer manual work to clear modern concrete and rubble, but also they collected and sold scrap materials from the sites towards buying an electric drill to help break up the concrete. It is difficult to single out individual names, but two must be mentioned. Nicholas Farrant and Mrs. Irene Wade were my constant Site Supervisors at weekends, regardless of the weather and of the time of the year, controlling anything up to 70 volunteers at one time, and the debt owed to them cannot be underestimated. It must suffice to say that a large part of this report could not have been written but for their personal help; also for the essential loan of equipment by the Wandsworth Historical Society, through Nicholas Farrant.

Thanks are also due to the various land owners, property developers and contractors, especially the latter, who generally tolerated our activities. At a time when the properties were changing hands for enormous sums of money prior to redevelopment, it was always an interesting exercise to discover exactly which company was redeveloping a particular site. Permission was not always granted, however, and the excavation of two major areas on the Roman palace site could not be carried out for this reason.

Although this report leaves many basic questions unanswered, it is clear that the collective effort of a large number of people to elucidate the history and plan of the Roman palace has been a success, and that, having firmly placed the palace on the map of Roman London, research excavations will no doubt update this study and clarify many of the unanswered problems described in this report.

For advice and help in the identification of objects I am most grateful to Brian Hartley (samian ware), Dr. Martin Henig (mosaic fragments), and to Miss Mavis Bimson (goldsmith's debris).

Finally, I must express my gratitude to Max Hebditch, Assistant Director of the Museum of London and to Brian Hobley, Chief Urban Archaeologist of the new Department of Urban Archaeology for their support in the preparation of this report and, from within the Department, I am particularly glad to have had the benefit of the expert draughtsmanship abilities of Miss Pam Broady, Miss Susan Knapp and Howard Pell, whose initials occur on their drawings. I am also grateful to Miss Hilary Kent who expertly mounted the many drawings of finds, and to Trevor Hurst for the photographs on Plates 6 and 7.

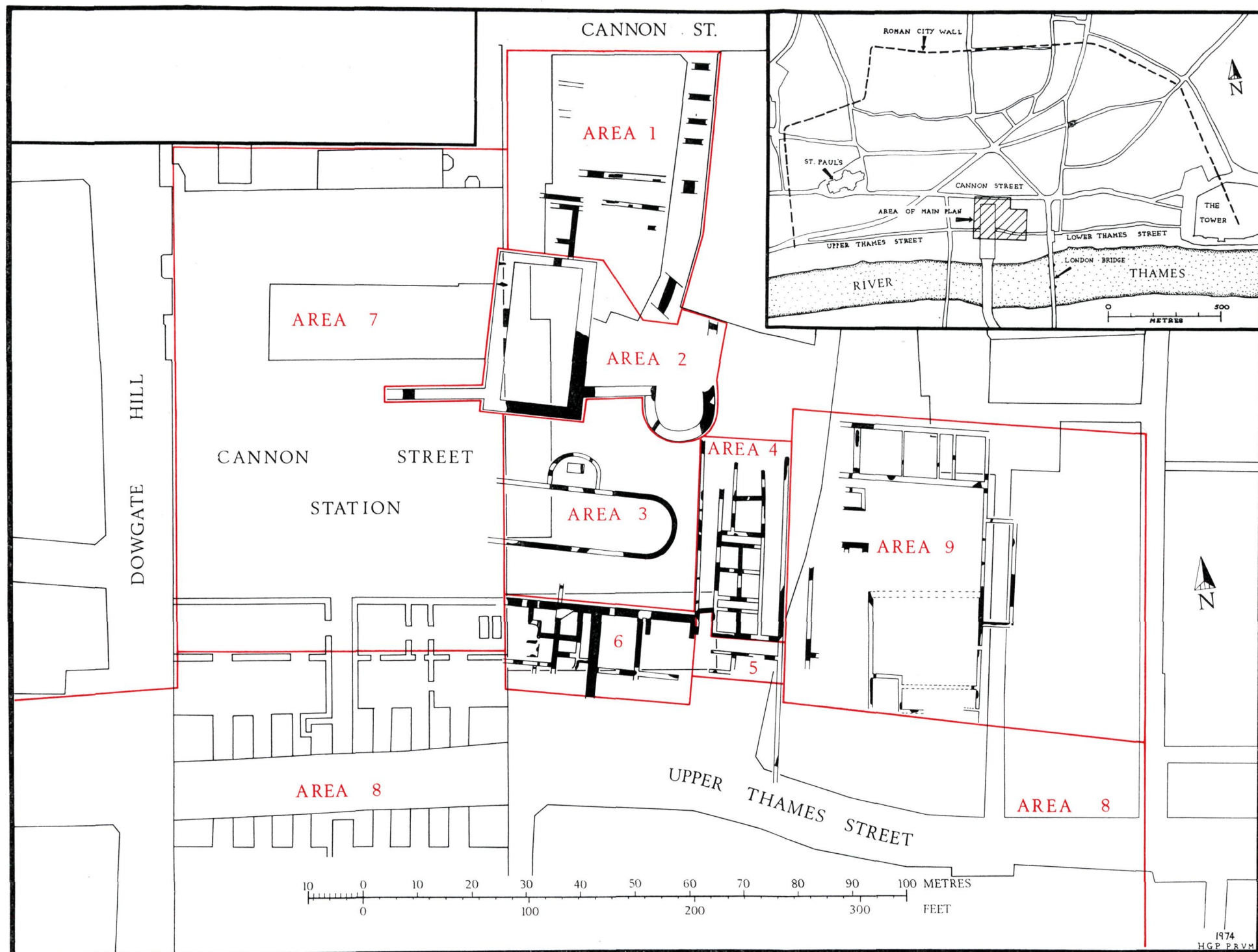


Fig. 1 Roman Palace. The location of the palace site in London, and the areas of study (red)

References are made to groups of objects recorded in the Museum Excavation Register (e.g. E.R. 1206), and reference is here made to p. 79 where the details of this form of record are given.

LOCATION OF THE SITE

The area under study in this report (Fig. 1) is now bounded by Cannon Street in the north, Dowgate Hill in the west, Laurence Pountney Lane in the east, and the River Thames in the south. A major portion of the western area of the site is now occupied by Cannon Street Station. In relation to Roman London it lay in the waterfront region, immediately east of the mouth of the Walbrook stream (Fig. 27).

HISTORY OF ARCHAEOLOGICAL DISCOVERY AND RECORDING ON THE SITE

The discovery of impressive Roman remains in the area of Bush Lane occasioned comment as early as about 300 years ago. The first published comment states that after the Great Fire of 1666 labourers rebuilding houses discovered "a Tessellated Pavement with the Remains of a large Building or Hall" at a depth of 20 ft (6.1 m) in Scott's Yard on the west side of Bush Lane. Prophetically they were believed to have indicated the presence of both the Roman governor's palace and the basilica. Four holes full of charred wood also drew comment for they were thought to have contained piles for the defence of the wall, and it was thought, too, that as the substructure of the pavement was composed of artificial earth containing bricks and broken glass it seemed that the building had been destroyed by Boudicca.¹ Later, Bagford, writing in 1714, stated that part of the pavement, which he believed to have been part "of Caesar's tent", was preserved in the Museum of the Royal Society.²

Scott's Yard is set back from Cannon Street and it is therefore unlikely that the post-Great Fire discovery is the same as that described in 1755 by Strype as: "in Canning Street nigh Bush Lane was found pretty deep in the Earth, a large pavement of Roman mosaic work".³

During the nineteenth century many more Roman structures were located in the Bush Lane region, particularly about 1840, when the main sewers were being built in open-cut trenches dug in the streets of the area. Charles Roach Smith was active at that time recording the walls and floors, though he had the most unfortunate habit of not publishing details of the positions of the structures. His reason was that "the hand of unchecked ignorance in a few minutes destroys what time has spared, and often before it is possible for the antiquary to make even a memorandum of the fact. These and other impediments will explain why in many instances I content myself with merely alluding to the existence of buildings or other remains without supplying details".⁴

Some of the walls found under Bush Lane were of great thickness, one of them being 20 ft thick! Although Roach Smith did not make a record of their location, their positions were fortunately sketched on the sewer working plans, now preserved in the Corporation of London Records Office.

Although reluctant to record in detail the structures he saw, Roach Smith was less reticent in drawing conclusions. In 1859 he suggested that "the extraordinary substructures which were cut through in Bush Lane and in Scott's Yard, may indicate a south-eastern boundary wall with a flanking tower" of an early city defence.⁵ These views were developing in his mind as early as 1841 soon after the walls were found,⁶ and were still supported by F. W. Reader as recently as 1909.⁷ Similar ideas were held by Arthur Taylor in 1849.⁸

With the discovery of two tiles bearing variations of the official P.P.BR.LON. stamp by Roach Smith in the Bush Lane area, and similar discoveries made about 1868 during the construction of Cannon Street Station, the significance of the inscription was being questioned. Curiously, the discovery in about 1868 of many massive walls on the new station site, which were recorded by Mr. Thomas Gunston, drew no new suggestions as to the significance of the Roman structures. In particular one might expect that the discovery of one of the walls, 200 ft (60.96 m) long, 12 ft (3.66 m) thick and 10 ft (3.05 m) high, might have occasioned some comment, but this was not to be.⁹ Later discoveries show that caution was justified and, as the Royal Commission Report of 1928 rightly concluded, "that there must have been an extensive building or series of buildings in this locality seems clear".¹⁰

Nothing of significance was recorded in the area of Bush Lane between 1868 and January 1961, though rebuilding of many sites in the area occurred at various times, and were undoubtedly responsible for the destruction of many Roman structures. For example, the cellar floor of Bush Lane House, built in 1898 at the north end of the street, was actually cut into the natural subsoil.

It was clear in 1960–61 that the combination of massive Roman structures and a concentration of official Roman stamped tiles indicated the former existence of a very important building or group of buildings in this part of the City, and that every effort should be made to define the nature of the building(s). The investigations began in 1961 on the site of Elizabeth House where a small archaeological sondage revealed a hypocaust overlying earlier Roman structures. It was not until Elizabeth House was built in 1961, however, that the first positive evidence was found of what is now interpreted as a Roman palace. Here the great hall (Room 42, Fig. 10) of the state rooms of the palace was revealed and recorded during the building operations and, later, part of the great pool (Feature 46, Fig. 12) was recorded. Observations and records were generally made by the author, but with valuable assistance from Gordon Davies who recorded the small apsidal pool (Feature 45, Fig. 12).

In 1964 a large bombed site on the east side of Bush Lane became available for excavation for a period of eight weeks prior to redevelopment. In spite of almost no financial support, the existence of the newly-established City of London Excavation Group, a team of amateurs, meant that at weekends it was possible to take some advantage of the opportunity given. The weekend digging was supervised by Nicholas Farrant, who augmented the small collection of tools with a loan of equipment from the Wandsworth Historical Society. A small amount of excavation was continued during the weekdays, at which time the archaeological features were mainly recorded.

At the outset of the excavation on this site, sondages were dug to determine the nature of the surviving archaeological remains with a view to making the best use of the short period available. These revealed that the Roman features lay on two terraces, described in this report as Areas 4 and 5 (Fig. 1). From the outset a deliberate decision was made not to investigate the post-Roman features because there was insufficient time to make an adequate record of both the Roman and the post-Roman features. In addition, the sondages had shown that in Area 4, on the upper terrace, only Roman foundations had survived, whereas on the lower terrace the walls stood intact to a height of a metre or more. The limitations of time, manpower, equipment, and the absence of money meant that only part of the site could be investigated and the decision had to be made to abandon one part of the site for recording during rebuilding operations only.

In the event it was decided to investigate archaeologically the area of wall foundations on the upper terrace in Area 4 because they were less well preserved. It was anticipated that the better preserved Roman walls on the lower terrace of Areas 5 and 6 would be more easily seen and recorded during building operations, but that there would be little chance of seeing the comparatively slight Roman foundations of the east wing. Fortunately, this proved to be the case and, as an experiment, a careful watch was kept on the east wing of the palace in Area 4 to determine just how much of the Roman structure could be recorded by making observations during building site excavations. Although the plan of the Roman building in that area was already known, so little of its structure was seen as the mechanical excavators dug away the ground that the resultant fragmentary record is meaningless. The deeper south wing (Areas 5 and 6, Fig. 1), however, lay just above the lower limit of the new general site basement level, and this fact, together with the much more complete state of preservation of the Roman walls, meant that the positions of the Roman walls were satisfactorily and reasonably accurately recorded. Details of floors and wall decoration were poorly recorded, and no significant dating evidence was recovered.

Early in the archaeological excavation inaccuracies were discovered in the most recent available plans of the sites on the east side of Cannon Street Station, and this necessitated the development of an independent method of recording the relationship of the sites to each other. Essentially, the Roman walls were all recorded in relation to the east side of Cannon Street Station, the structures on the site between Bush Lane and Suffolk Lane being related to an east-west datum at a right-angle to the east face of the Station and in line with the south face of Elizabeth House (Fig. 28).

The site of the bombed Dyers Arms public house beside Cannon Street was archaeologically excavated with volunteers from the City of London Excavation Group under the supervision of Mrs. Irene Wade between November 1965 and May 1966. The site was surveyed accurately in relation to the east side of Cannon Street Station, and to the south face of Elizabeth House. This meant that, in spite of the many inaccuracies in the modern surveys of the Bush Lane area, the Roman features were all correctly plotted on a plan in relation to each other.

Another major area of rebuilding occurred on the site of Norfolk-Suffolk House to the east of Suffolk Lane in 1969; and, although a concerted effort was made to record the Roman features by personal observation during the rebuilding excavations, it was not assisted by an archaeological excavation having previously been carried out. Nevertheless, a considerable part of the layout of what seems to have been yet another major Roman building was recorded, though on this very large site there was little opportunity to record sections and to recover any significant dating evidence.

Once again inaccuracies were found in the modern redevelopment survey of the site, and the Roman features were primarily related to a datum line drawn across the site in line with the north side of the south wing of Barclays Bank, a building which lies immediately against the east face of Cannon Street Station and next to Upper Thames Street. This east-west datum was accurately related to the datum line previously used to record the earlier discoveries in the Bush Lane region, so that the new Roman structures could be correctly related to the earlier finds, and to the east side of Cannon Street Station and its junction with the south face of Elizabeth House.

Finally, in 1972, the site of Bush Lane House, situated between Bush Lane and the Dyers Arms public house site, was excavated by Tony Johnson for the Guildhall Museum. Addi-

tional archaeological features were found relating to the Roman palace but, because the excavation took place inside the cellar of the occupied office building, it proved difficult accurately to link the site to the east side of Cannon Street Station. This difficulty will be discussed at a later stage in the report.

The archaeological investigations published here are largely the result of concentrated observations carried out during building operations, and by a limited amount of volunteer excavation under the direction of the author. These factors, linked with the absence of any financial support, will explain the limitations of this report. To gain this considerable quantity of knowledge a price has had to be paid—of observations not being carried out on other building sites. With mechanical excavators at times being in almost continuous operation on the palace area building sites, it was necessary to spend a very considerable amount of time on site, to the detriment of archaeological investigation elsewhere.

THE PHYSICAL GEOGRAPHY OF THE SITE (Figs. 2–3)

Geologically, the Roman city of Londinium was situated on the elevated Taplow terrace, the upper surface of which lay up to 10.97 m above O.D. This had been deeply dissected by the Fleet River and the Walbrook stream down to approximately the level of Ordnance Datum, which was probably about the level of the Thames during the early Roman period.¹¹

The Roman palace was situated on the steeply-sloping hillside overlooking the River Thames to the south and the Walbrook stream to the west, but its situation necessitated extensive terracing of the hillside, both by excavating into the natural subsoil and by dumping clay and gravel onto the slope behind retaining walls. The hillside is now a slope of 1:14, Cannon Street at the top lying at 13.41 m above O.D., and Upper Thames Street at the bottom of the slope lying at 6.7 m above O.D. During the Roman period the slope of the hillside was approximately 1:10, the natural subsoil beneath Cannon Street lying at about 10.36 m above O.D., and at the bottom of the slope the natural surface lay at about 1.22 m above O.D. (Figs. 2, 3).

The hillside on which the palace was built originally showed a section of the Taplow terrace deposits and the underlying bedrock of London clay, but Roman and later buildings, together with considerable deposits of dumped earth and rubbish, have completely obscured the natural subsoil (Fig. 3). Nevertheless, the natural ground was observed and recorded both during the making of borehole tests by contractors and during archaeological investigations carried out before and during the rebuilding of the various offices constructed in the palace area.

At the top of the hillside the natural subsoil was a yellowish-brown brickearth and was revealed in 1960–61 by Professor W. F. Grimes on the site of the Church of St. Swithin, London Stone, in Cannon Street,¹² and also on the site of 143–149 Cannon Street (personal observation). Excavations further south on the upper edge of the hillside slope, on the site of the Dyers Arms public house, and beneath Bush Lane House,¹³ showed that the natural subsoil lay at 9.90 m above O.D., and that the brickearth was somewhat sandy, being a transitional form between the underlying gravel and the brickearth. The actual junction between the brickearth and the gravel was not observed since it had been destroyed by the Roman and modern terracing. The actual junction line was probably at the north end of the great hall, Room 42, of the palace.

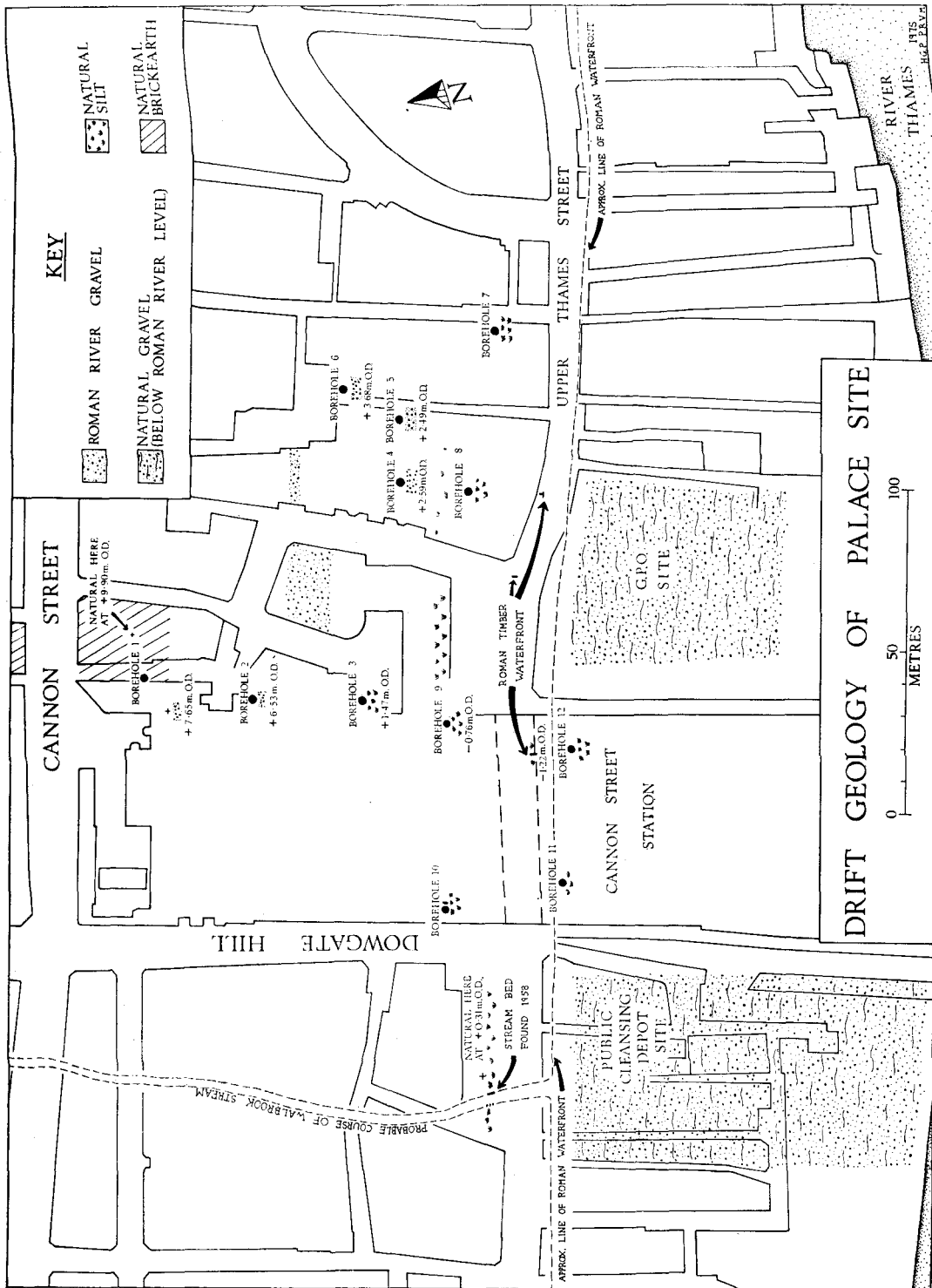


Fig. 2 Roman Palace. The recorded geology of the site

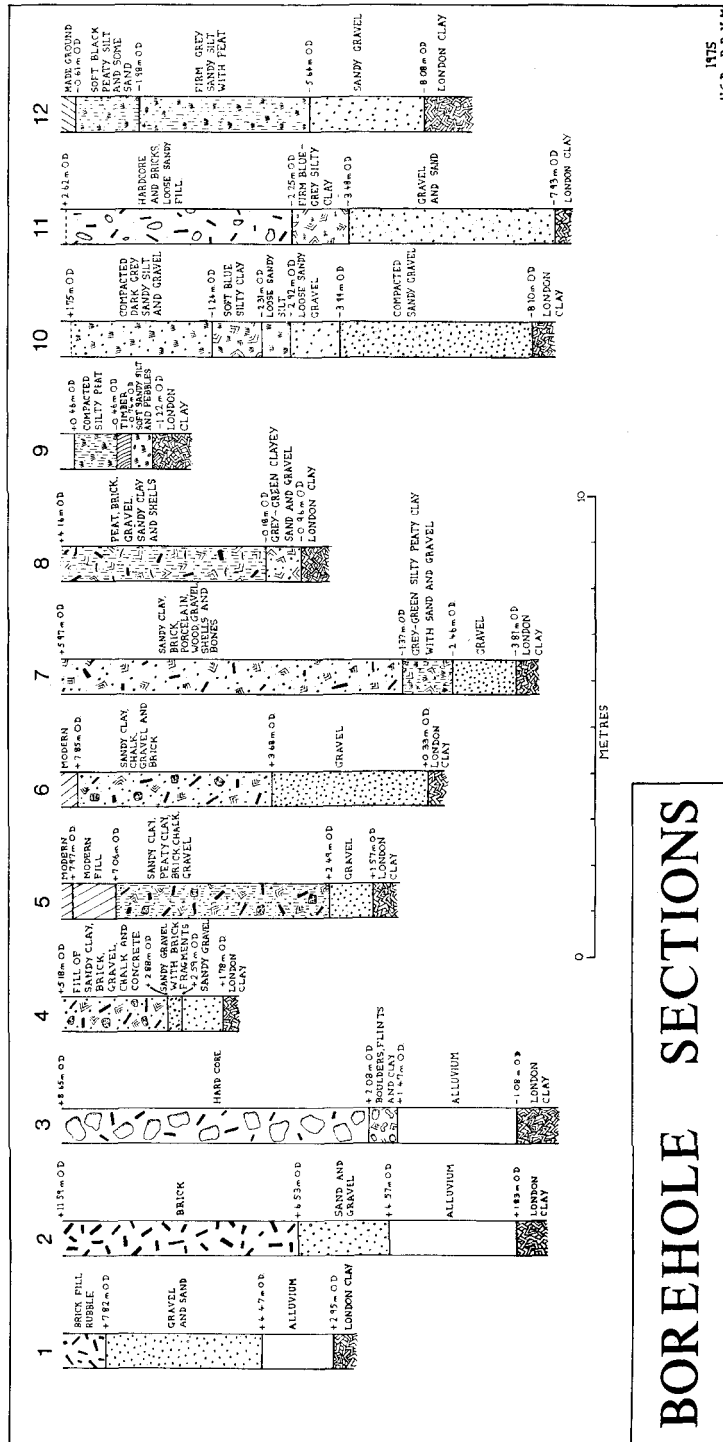


Fig. 3 Roman Palace. Borehole sections recorded during commercial site investigations

A thick deposit of Taplow terrace river gravel underlay the brickearth and outcropped down to the region below Rooms 7-11, and below it lay the stiff brownish grey London clay. The junction between the pervious gravel and the impervious London clay was no doubt a line of groundwater seepage, which on some City sites seems to have taken the form of actual springs, as at Billingsgate and beside Huggin Hill, where Roman baths were later located.¹⁴ At the south end of the palace area, beside Upper Thames Street, the London clay was overlaid by sticky greyish silts presumably deposited by the Thames, and beneath this was found the gravel of the northern limit of the Flood Plain river terrace.

THE PRE-PALACE PHASE

Evidence of occupation prior to the palace construction has been found on various parts of the site (Fig. 4), and these are described under their separate areas (Fig. 1).

AREA 1 (Fig. 4)

Excavations by Tony Johnson in 1972 on the site of Bush Lane House revealed the only certain pre-palace structure in Area 1, there being three phases of Roman timber construction all of which are dated to the pre-Flavian period.¹⁵

The first phase comprised parts of three beam slots, each about 0.50 m wide, which probably formed part of a single Roman timber building. These had been dug into the natural brickearth, and in the bottom of each of them were post holes between 120 and 150 mm in diameter.

Two additional slots, also with posts, but with a slightly different filling, were found just to the south of the first phase slots and it was considered that these might have formed an addition to the first phase building, or may have been the construction of an adjoining building.

Clearly, with only a little of the plan of these buildings traced, it is difficult to interpret their significance with any certainty; but the association of Neronian pottery and slight traces of burning, with a method of building construction extensively used in military timber buildings, suggests that they may have been military constructions.

Finally, following the demolition of at least the first period timber building there seems to have been added a new timber structure which may have included wattle and daub in its construction.

Later Roman occupation was indicated on the site of the Dyers Arms public house, where Pit 6, which lay within the palace area, was probably of pre-palace date (see p. 16).

AREA 2 (Fig. 4):

The examination of the early deposits of this area only occurred during building operations, and much of the pre-palace occupation debris appeared to have been dug away when the great hall (Room 42) of the palace was constructed.

PIT 5:

Part of one rubbish pit was recorded which was cut by the south wall of the palace Room 42 (E.R. 681) and clearly belonged to the pre-palace occupation phase. The pit had been dug into the natural gravel, and at its bottom had a layer of silty black mud, overlying which and generally filling the pit was a brownish-grey clayey soil (Fig. 35, Nos. 49, 50).

AREA 3 (Fig. 4; Fig. 14, Sections 6, 7 and 8):

This area was only examined during building operations, and, apart from a very considerable quantity of dumped clay and gravel which had been deposited prior to the construction of the palace, no certain evidence of pre-palace occupation or land use was observed.

AREA 4 (Figs. 4, 5):

Although there was little time to investigate the evidence in Area 4 for occupation prior to the construction of the palace, some traces of limited extent were actually found. The pre-palace land surface had been destroyed by a very considerable amount of both late Roman, medieval and recent excavation and construction work. Indeed, the horizontal modern cellar floor had been cut diagonally across a succession of downward sloping hillside deposits, so that the pre-palace occupation debris occurred as a zone of pits in the region between Rooms 1 and 5 of the palace (Fig. 15). At the north end of this zone, under Room 1, only the bottom of the deeper feature, Well 1, had survived, while to the south of Room 5, although the archaeological deposits had

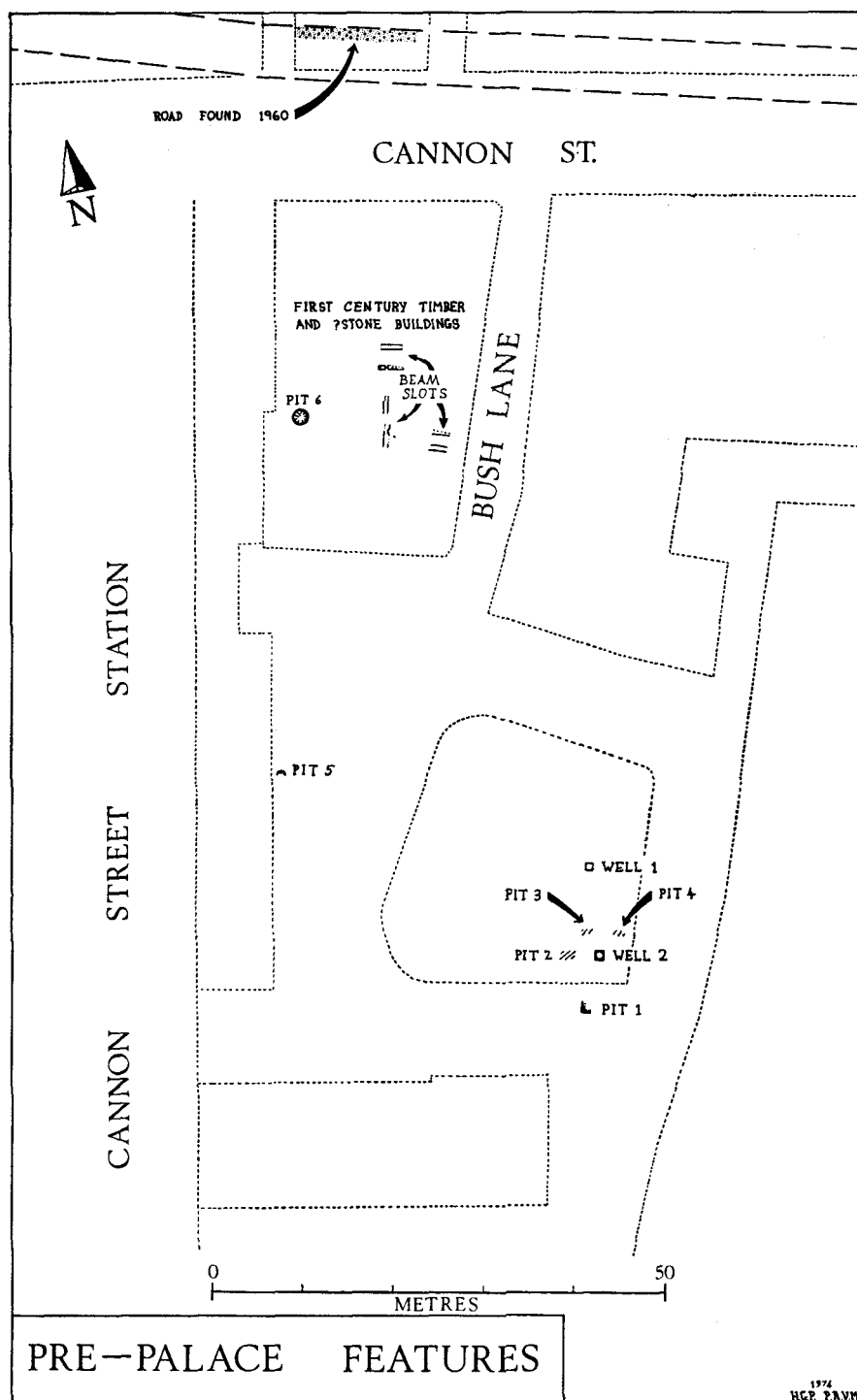


Fig. 4 Roman Palace. Pre-palace features of the first century A.D. The early date of the Roman road under Cannon Street is not established

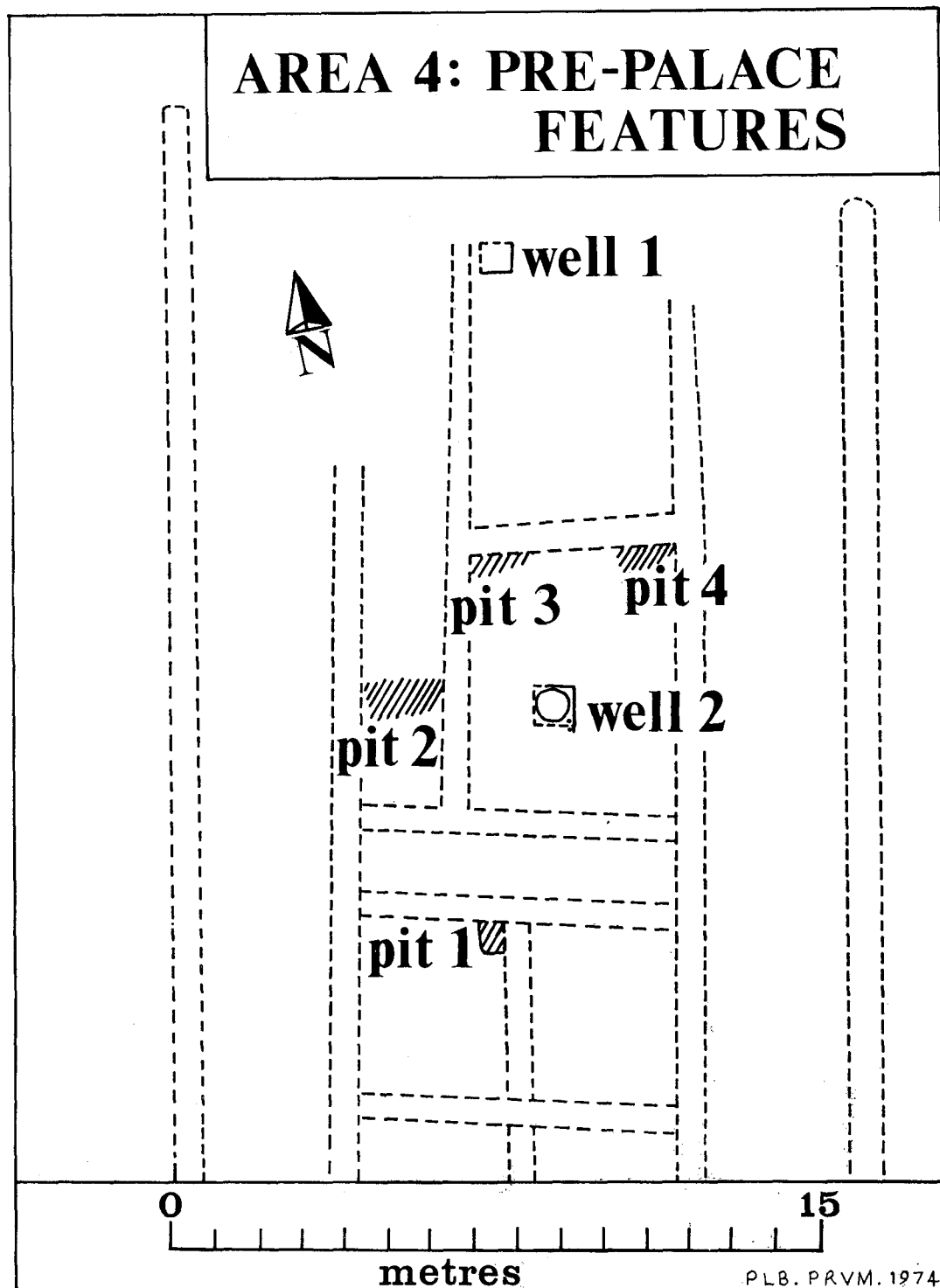


Fig. 5 Roman Palace. Pits and wells recorded in Area 4. Well 2 and Pit 1 contained evidence of Flavian gold refining

been much disturbed, it seems that here there lay a large dump of clay contemporary with the terracing of the hillside for the construction of the palace. That the two Wells, 1 and 2, belong to pre-palace occupation is an assumption based primarily upon their dateable contents.

The only indication of the nature of the occupation is the contents of the pits and wells, which in two cases are so distinctive that it is clear that during the period c. A.D. 60–80, a goldsmith had a workshop on the site of the later palace Rooms 2 and 5 or nearby (p. 100; Fig. 46).

WELL 1

Only the lowest 0.114 m of this well had survived beneath the modern concrete cellar floor, and indeed a large part of two of its sides and the main part of its surviving filling had been destroyed when a modern concrete foundation was constructed during a pre-war development. The well was square and wood lined, and the fortunate survival of three of its corners show that it was 0.76 m square. The boards forming the sides had completely decayed to a brown earth, and apart from these a corroded iron nail in the south-west corner and a decayed vertical external post at the south-east corner were the sole indications of the construction of the well. The impression of the boards was 0.19 m, and the bottom of the well lay at about 5.18 m above O.D. in natural gravel, this level clearly being below the water table at the time the well was dug. A few sherds were found in the gravel filling the bottom of the well (E.R. 1018) and these date from the period Claudius–Nero (Fig. 35, No. 51).

WELL 2 (Fig. 4)

This well was discovered during the building operations on this site, and its upper work and part of one side had been destroyed by a mechanical excavator prior to its archaeological investigation.

The well had been constructed in a deep pit dug into the London clay, to a depth of 1.98 m above O.D. Its lower part was constructed from a wooden barrel with a maximum diameter of 0.96 m which survived to a height of 1.45 m, but from the shape of the barrel it was clearly originally about 1.83 m high. At a mid point in the side of the barrel, in one of the staves, was a circular wooden bung. The circular end board at the lower end of the barrel had been removed prior to the re-use of the barrel and, although the upper end of the barrel had been destroyed, it may be inferred with certainty that the circular board has been removed at that end as well to allow a bucket to be lowered to the well bottom. The base of the well inside the barrel had been specially prepared with a layer of broken pieces of tile and a large fragment of amphora (E.R. 1033) (not illustrated). Above the barrel the well was originally square in form having been constructed of large boards. Parts of three sides, including two corners, were recorded, and it is clear that originally the well was 1.14 m square, this being the length of the one surviving side.

The great depth of the base of this well, compared with that of well 1, even allowing for a lower water-table level lower down the hillside slope, indicates that the well was intended to contain a very considerable quantity of water. That the users required a constant and considerable source of water is also suggested by the fact that the bottom of the well had been dug some distance into the impervious London clay. The amount of water is difficult to judge, but the water table at Well 2 is unlikely to have been below the bottom of Well 1 only 9.75 m away, and as this lay at about 5.18 m above O.D. it is reasonable to conclude that originally at least 3.5 m of water lay in Well 2. This considerable quantity of water suggests more than domestic usage, and it may well have been associated with the goldsmith's workshop, a view which is perhaps supported by the discovery of a little gold dust in the well filling.

The lower part of the well contained a layer of fine silt which included pottery dated to the period A.D. 60–80 (E.R. 1032) (Fig. 35, Nos. 54–58). When the well went out of use it was filled by dumping clay, and this too contained pottery of the period A.D. 60–80. While scraping down the dumped filling of the well a small pocket of water in the clay was opened, and a sprinkling of fine gold dust ran down the face of the section, indicating that the well was filled after the goldsmith had started operating on the site.

PIT 1

This pit was located at the north-east corner of the later Room 5 of the palace, and the foundations of the corner of the room had been cut through part of its filling. In the pit were a large number of sherds (E.R. 964 1021) which are dated to the period A.D. 80–100 (Fig. 35, Nos. 62–74; Fig. 42, Nos. 281–86). Part of the filling consisted of a layer of wood ash, and in this was found a series of objects connected with gold working, including parts of three crucibles which were partly impregnated with gold, three crucible lids, and fragments of baked clay used to seal the lids of the crucibles (Fig. 46).

PIT 2

The lower part of the pit containing a filling of mixed clay and earth was found cut by the later foundations on the east and west walls of Room 3, and also by the foundation of an hypocaust flue. The few dateable sherds (E.R. 962) are of Flavian period (Fig. 35, Nos. 59-61).

PIT 3

The bottom of a pit was found cut by the north wall of the later Room 2. The sandy earth filling included a few Flavian sherds (not illustrated), and small fragments of soft mortar (E.R. 956).

PIT 4

A pit containing mixed deposits of clay and black earth was found underlying the ragstone foundation probably of an hypocaust flue in the north-east corner of the later Room 2. The sherds are of Flavian period (E.R. 957) (Fig. 35, No. 52).

DISCUSSION

PRE-PALACE PHASE (Figs. 2, 3, 4, 5)

The physical geography of the region of Roman London under discussion is particularly interesting, for it comprises the edge of a high flat-topped promontory of land, with steep slopes down to the Walbrook stream to the east, and down to the River Thames to the south (Fig. 27). Thus this was a natural land formation of great potential as an easily-defended military position. Already excavation at the edge of the plateau area has revealed traces of a possible early Roman timber storehouse building of military type,¹⁶ and it is possible that the edge of the scarp was originally strengthened by some form of defensive feature related to what may have been an early Roman military base in London, built at the northern bridge-head of the crossing of the Thames¹⁷. Early pre-Flavian developments in the area are very poorly preserved, and are largely represented by rubbish pits and wood-lined wells. Nevertheless, clear evidence of gold refining was found associated with a pit and a well dating from the early Flavian period (Pit 1 and Well 2), and as gold mining and refining, in contrast to jewellery making was, normally, undertaken under imperial control,¹⁸ it is possible that the Bush Lane area of Londinium may also have remained under provincial ownership. In spite of this possibility it is difficult to understand why gold refining was undertaken in Londinium instead of at the mining source, which was possibly at Dolaucothi in Carmarthenshire where extensive evidence of gold mining is currently being investigated.¹⁹ However, the discovery in London of an iron stamp probably of the second century A.D. bearing the inscription M.P. BR²⁰ may have some bearing on the problem and support the suggestions made above. Merrifield has interpreted this stamp as probably meaning *M(ETALLA) P(ROVINCIAE) BR(ITANNIAE)*—"mines of the Province of Britain", and that this relates to provincial government control and the marking of ingots of a soft metal such as gold,²¹ and that this is indicative of provincial economic affairs having been centred in Londinium at that time.

This suggested that continuing ownership of this significant quarter of Roman London by the provincial government would have stopped civil developments occurring on this attractive location, until such time as the site could be properly developed for provincial purposes. Although the site lies close to London Bridge and to the heart of the early Roman city no major stone buildings appear to have been erected there until the latter half of the Flavian period. These suggestions are supported by extremely tenuous evidence, but they are mentioned if for no other reason than to point out the importance in future excavations of trying to establish the nature of the pre- and early Flavian occupation of the area.

THE ROMAN PALACE (Fig. 28)

A large palatial residence was constructed on the site during the Flavian period, and this is described below. Some attempt has been made to separate out the various building phases of each area, but where isolated portions of Roman structure have been found it is not possible to determine whether they are of the palace period or later. In other areas, such as in Areas 1 and 9, the evidence is sometimes too limited to allow a conclusion to be reached with any certainty. Nevertheless, the palace is described below in the various areas which most conveniently relate to its layout.

AREA 1. VARIOUS ROMAN PHASES (Figs. 6-9)

This region at the north end of the palace area (Fig. 6) was investigated in three major portions at different times. The first was in 1840-41 when Roman walls were roughly recorded on Sewer Plan 27 during sewer excavations in the centre of Bush Lane (Fig. 7). The second was in 1965 when an archaeological excavation was carried out under the author's direction on the site of the former Dyers Arms public house, just east of Bush Lane House. And finally in 1972 when the site of Bush Lane House itself was archaeologically investigated under the direction of Tony Johnson.²² Extensive traces of Roman structures were found on all three occasions and, while it might be thought that they would easily form a coherent picture, this has proved not to be the case due to the difficulty of correctly positioning the three sites in relation to each other.

The position of the Roman walls found in Bush Lane about 1840 were sketched in pencil on Sewer Plan 27 (Fig. 8), and related to the buildings then extant, but none of which existed when the post-war archaeological excavations were carried out. Thus, although the sewer position and, therefore, the sewer trench in which the walls were found is known, it is not possible to establish the exact position north or south of the Roman walls.

The archaeological features exposed in the Dyers Arms excavation were recorded from the side of Cannon Street Station, which itself was accurately related to the archaeological sites further south and east in the palace area. Consequently, although the archaeological features on the Dyers Arms site are correctly positioned with regard to the rest of the excavated palace area, there is no accurate link-up with the walls found under Bush Lane in 1840.

The Bush Lane House site excavations occurred inside a standing office building of the late nineteenth century, and the archaeological features were related to an interior plan of the basement of that building. Unfortunately, this could not be accurately related either to the neighbouring Dyers Arms site or to Bush Lane itself so, in a sense, the plan of the Roman features is "floating" in an uncertain position.

The relationship of all three sites *as recorded* and without any attempt to rationalize their plan is shown in Fig. 6A; while in the same drawing there is shown a rationalization of all three plans in which each site is moved slightly to ensure that Roman features link up. Particularly important is a Roman wall apparently linking the Dyers Arms and Bush Lane House sites, for, as the unadjusted plan shows, the two portions of what seems to be the same wall (Feature 33 and the north wall of Room 39), are of similar construction and are so closely positioned that it seems reasonable to assume that they formed parts of the same wall.

The levels of the surviving Roman deposits also have an important bearing upon the interpretation of the plans, for both on the Dyers Arms and Bush Lane House sites the modern cellars had been horizontally cut into what was the top of the natural hillside slope. Consequently the Roman deposits had survived more intact at the southern or lower end of the two modern buildings, where also a terrace had been cut during the Roman period. The cellar floor of Bush Lane House was slightly deeper than that of the Dyers Arms public house and no trace of any Roman masonry building was found in the northern half of the site. On the Dyers Arms site, however, there remained the lower parts of two possible robbed Roman walls, while under Bush Lane itself, where no cellars had removed the Roman deposits, there were found in 1840 a series of Roman walls showing that a substantial area of building had occupied the northern part of Area 1 (Fig. 7). Because of the incomplete record of the pre-war discoveries it is very difficult to interpret the incomplete plan of the masonry constructions in this area.

DYERS ARMS SITE—PROBABLE PALACE PHASE

The natural subsoil on this site comprised a sandy brickearth, and the bottom of the modern cellar floor lay just above the level of the natural subsoil, thus preserving small portions of the lowest archaeological deposits.

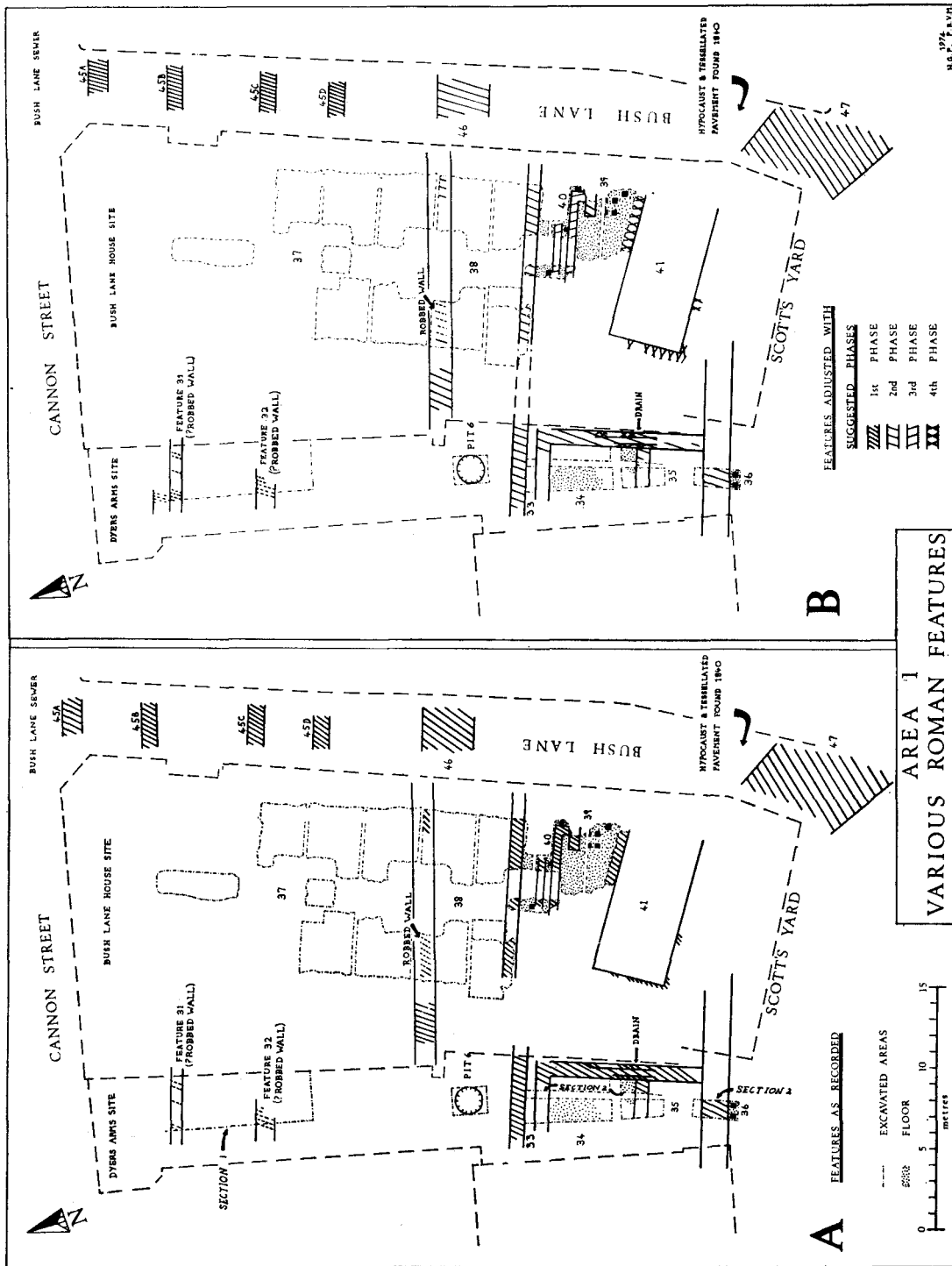


Fig. 6 Roman Palace. Roman masonry structures of all phases in A, as recorded, and in B, as adjusted to bring the Dyer's Arms and Bush Lane House sites into line

For the purpose of description the site can be most conveniently divided into two almost equal parts—the northern and southern halves. Due to the depth of the modern cellar and a very considerable amount of post-Roman disturbance, few Roman features could be found in the northern half of the site, and those which were found could not be stratigraphically related to each other (Fig. 7). In the southern half of the site, perhaps due to a lower Roman terrace being situated there, the excavations exposed a complex of Roman masonry structures.

NORTHERN HALF OF THE SITE

PIT 6 (Fig. 6):

A circular pit filled with dark earth and containing a considerable amount of Flavian pottery (E.R. 1117, 1160) (Fig. 33, Nos. 1–22).

On the south side of this pit was a deposit of dumped clay, which had apparently been cut by the pit, and which also contained a considerable amount of Flavian pottery (E.R. 1162) (Fig. 34, Nos. 23–47).

FEATURE 31 (Fig. 7, Section 1)

This was the lower part of a “gully” 0.76 m wide, the bottom of which lay just above the natural land surface level; and in its black earth filling was a considerable quantity of broken mortar and rubble suggesting that this had been a robbed Roman wall aligned roughly east–west.

FEATURE 32 (Fig. 7, Section 1)

This was the bottom of possibly another robbed Roman wall also aligned roughly east–west, for it was a gully or trench about 1.35 m wide which had been filled with black soil containing a great amount of Roman building debris—ragstone, broken Roman tiles and fragments of *opus signinum*.

SOUTHERN HALF OF THE SITE

ROOM 33

This was a narrow “chamber” only 0.76 m wide. On its north side was a Roman wall 0.91 m thick and constructed of ragstone and buff mortar. Pressure had completely cracked this wall in two places in the short length exposed on this site, and it seems that this had been exerted from the north or uphill side of the wall as the western end of this short length had been slightly displaced to the south.

ROOM 34

This room had been extensively destroyed by excavations during the early medieval period. The room measured 4.88 m north–south, and at least 2.47 m east–west; and below the post-Roman disturbance which had removed the floor of the room, there was found a layer of ragstone rubble and buff mortar which may have been the foundation of a sunken floor.

ROOM 35

The floor and almost the entire north wall of this small room had been destroyed during the construction of a post-Roman pit. Sufficient had survived to show that the room measured about 3.35 m north–south, and more than 2.13 m east–west. The remaining part of the north wall was constructed of ragstone and buff cement, and it was 0.76 m thick and it abutted the east wall of the room from which it was separated by a straight joint. The south wall of Room 35 was a massive wall 1.68 m thick which formed the north wall of Room 36.

ROOM 36

Only a very short length of the north side of this room could be uncovered, the wall being 1.68 m thick and built of Kentish ragstone set in buff mortar and overlaid by five courses of red Roman bricks, also set in buff mortar, above which level the wall had been destroyed. There was an offset of 0.064 m at the junction of the ragstone wall and the tiles above on the south face of the wall, but no comparable offset on the north side. Just below the offset there was a Roman floor of buff flinty concrete which supported, in the trench, two red brick hypocaust *pilae* separated 0.31 m apart. Above the hypocaust floor was a deposit of black earth about 110 mm thick containing fragments of Roman tiles. The surface of the concrete floor lay approximately at 8.46 m above O.D.

Some possible indication of the interior of Rooms 34 and 35 was included in the contents of the early medieval pits dug into Rooms 34 and 35 (Fig. 7, Section 2). There appear to have been two separate pits (Layers 1–4, 6–12 and 14); that dug into Room 34 being the earlier. In this pit the deposits included Roman tiles, both of the *imbrex* and *tegula* types, as well as fragments of box flue tiles—these generally having traces of the buff-coloured mortar in which they had been set. Also a small number of pieces of pink-painted wall

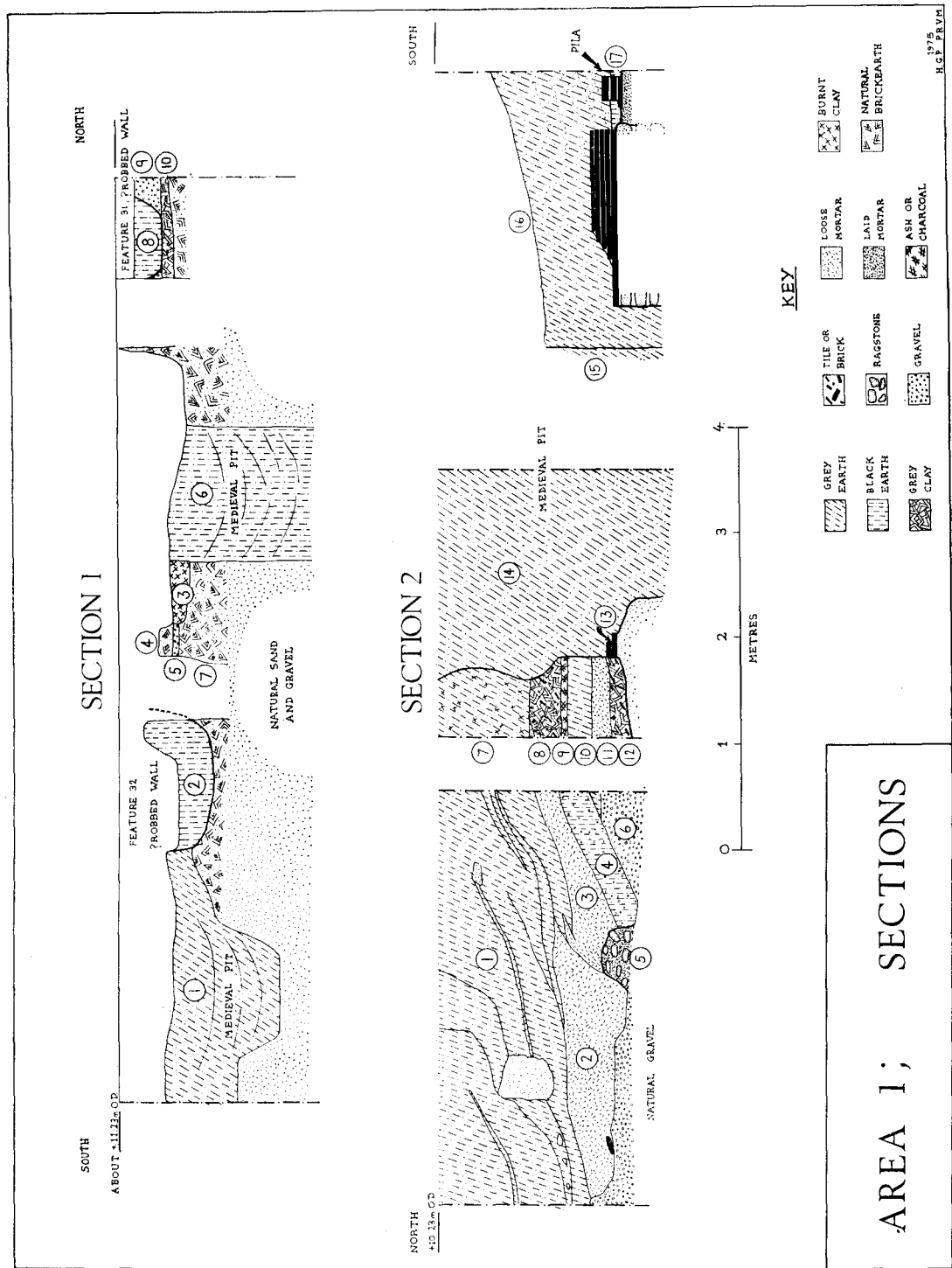


Fig. 7 Roman Palace. Sections 1 and 2 on the Dyers Arms site

plaster were found. Flooring was indicated by 35 white tesserae and two grey tesserae, most of which bear traces of the pink mortar in which they were set; and there were two small fragments of Purbeck marble, one bearing traces of having been set in pink mortar (E.R. 1120, 1122, 1123, 1124, 1125, 1127, 1128, 1129, 1130). The stratigraphically later pit dug into Room 35 also contained a few sherds of early medieval pottery (E.R. 1121) but, in addition, two white tesserae with traces of pink mortar; also a tile with a PP BR LON stamp (Fig. 42, No. 292). The suggestion, therefore, is that these rooms may have had hypocausts and tessellated floors; and this is also indicated by what seems to be the low-lying floor foundation in Room 34.

BUSH LANE HOUSE SITE (Fig. 6)

The cellar of this building had been cut into the natural brickearth a little and, as it was slightly deeper than the floor of the Dyers Arms public house, no Roman walls were found in the northern half of the site (Feature 38). The natural, sandy brickearth surface had been destroyed by the recent building operations, though it was recorded to a height of 9.90 m above O.D.

Johnson has discussed the sequence of Roman masonry construction on the Bush Lane House site,²³ though as the structures were evidently part of the Roman palace complex he did not attempt to interpret their significance. Essentially he identified three phases of masonry construction, to which a fourth may be added on the grounds of its probable Roman date.

PHASE A

This comprised two walls forming the north and south sides of Room 38. Only the foundations had survived dug into the natural subsoil, and their varying widths are due to the narrowing of the bottom of the foundations. The north wall (Johnson's "wall 1") had a maximum width at its west end of 1.30 m (not shown on Johnson's plan, Fig. 31) and was constructed of ragstone and yellowish mortar. The south foundation (Johnson's "wall 2") was similarly constructed and was about 0.55 m wide.

PHASE B

Whatever flooring had originally existed south of Feature 38, it is clear that this had subsequently been removed and a hypocaust inserted to form the base of Room 39.²⁴ Within this room was found the western end of a short wall of ragstone and buff mortar which also included an horizontal course of bonding tiles; this apparently having been constructed on the concrete lower floor of the hypocaust which suggests that it was a later modification.

PHASE B

Whatever flooring had originally existed in Room 39 it is clear that this had been removed and the soil below excavated down to the base of the foundation of the north wall of this room for the insertion of a hypocaust.²⁵ Perhaps a little later in date than the floor was a short length of wall²⁶ constructed of ragstone and buff mortar with an horizontal course of bonding tiles, which apparently had been built on top of the hypocaust floor.

PHASE C

Of even later date was the hypocaust flue²⁷ constructed on the concrete floor of the hypocaust. It is not clear how this relates to the stratigraphy but above the hypocaust floor was a compact layer of rubble,²⁸ clearly indicating that the hypocaust had been filled in at some stage, and it is perhaps then that the flue had been constructed as part of a modification to the hypocaust system. A *pila* tile bearing a PP BR LON stamp was found in the rubble.

PHASE D

The final Roman phase was not dated by any archaeological evidence but merely from the style of construction. It was, in fact, a sunken room (Fig. 6, Room 41), aligned obliquely to the earlier Roman structures, which had been cut through the hypocaust floor of Phase B, and through the overlying rubble. The walls were built of ragstone, flint, occasional Roman brick fragments, and a little chalk, set in a hard pale concrete and, in spite of the presence of the chalk (which is rarely found in Roman buildings), it had all the appearance of being of Roman date. The sunken interior faces of the room were rendered in white plaster, possibly painted white originally. No trace of any hypocaust was found, and the entire contents of the room, including the original floor, had been dug away in the nineteenth century and backfilled before Bush Lane House was built at the end of the nineteenth century.

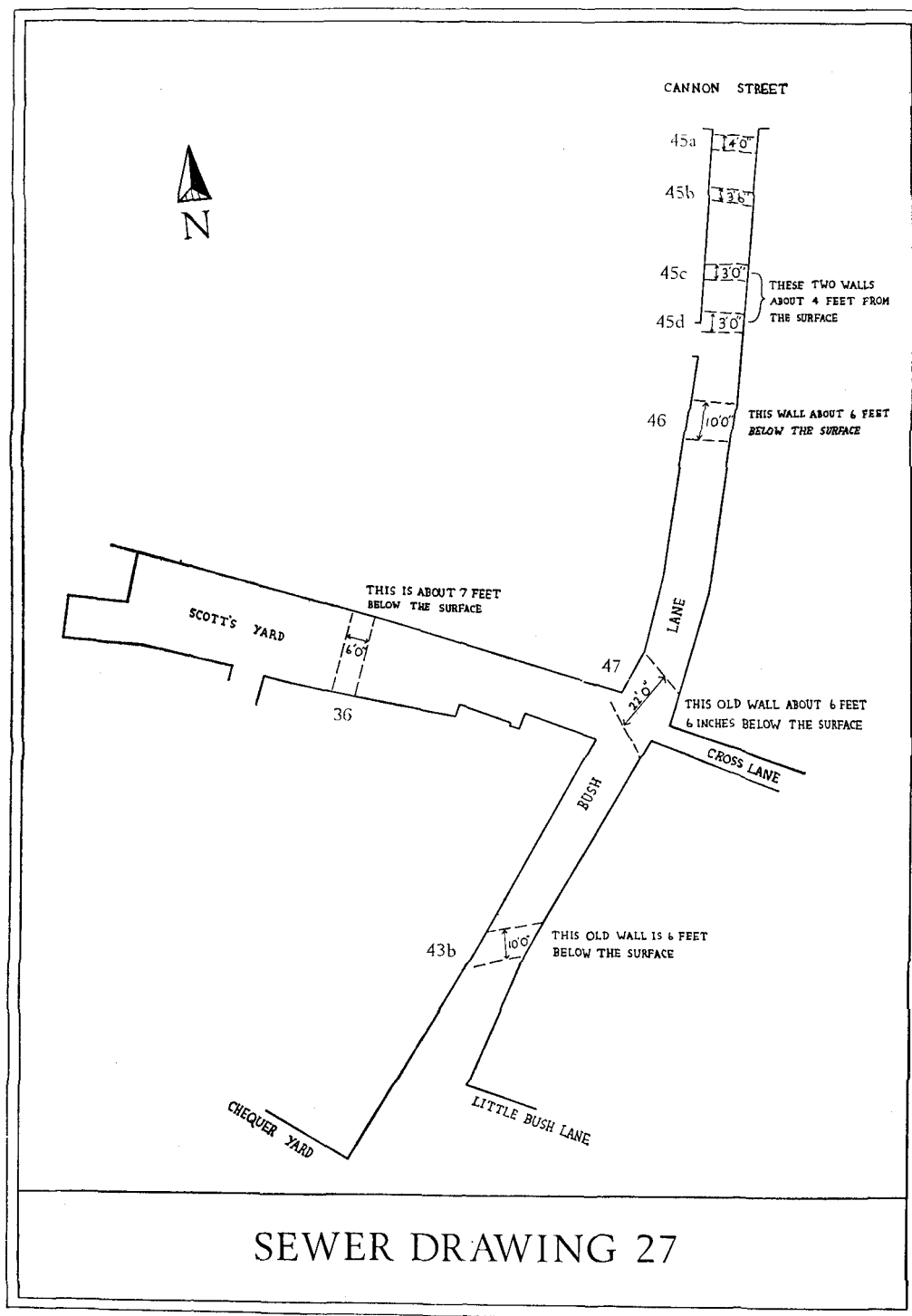


Fig. 8 Roman Palace. Roman walls recorded on Sewer Drawing 27, c. 1840, re-drawn for publication. The feature references used in this report have been added to the plan

BUSH LANE SEWER EXCAVATION 1940-41 (Figs. 6, 8, 9)

In the northern half of Bush Lane the excavations in the main roadway in 1840-41 uncovered a series of Roman walls.²⁹

These are recorded on Sewer Plan 27 (Fig. 8) and, with the numeration mentioned below, are shown on Fig. 6.

WALL 45A. This wall is recorded as being 1.22 m wide (Sewer Plan 27), and apparently in line with and "running under the pavement of" Cannon Street.

WALL 45B. This is recorded as being 1.07 m thick (Sewer Plan 27).

WALL 45C. This is recorded as being 0.91 m thick, and about 1.22 m from the modern road surface (Sewer Plan 27).

WALL 45D. This, too, is recorded as being 0.91 m thick and about 1.22 m deep (Sewer Plan 27).

WALL 46. This wall was 3.05 m thick and located about 1.83 m below the modern road surface (Sewer Plan 27).

WALL 47. This structure is tentatively called a "wall" though its massive size makes this unlikely. On Sewer Plan 27 it is shown as 22 ft wide, while in the original description by Charles Roach Smith, which is as follows, it is given as 20 ft wide:³⁰

"... opposite Scot's Yard a formidable wall of extraordinary thickness was found to cross the street diagonally. It measured in width 20 feet (6.1 m). It was built of flints and rag, with occasional masses of tiles. On the north side, however, there was such a preponderance of flints, and on the south such a marked excess of ragstone, as to justify raising a question as to whether one half might not have been constructed at a period subsequent to the other, though the reason for an addition to a ten-foot wall is not apparent. So firmly had time solidified the mortar and ripened its power, that the labourers, in despair of being able to demolish the wall, were compelled literally to drill a tunnel through it to admit the sewer. Whatever might have been the original destination of this wall, whether it formed part of a public building or a citadel, it must have been perverted from its primary destination at some period during the Roman dynasty. The excavation was carried to the depth of 15 feet (4.57 m), the remains of the wall appearing 6 feet (1.83 m) below the street level. Adjoining the north side of the wall, and running absolutely upon it, was a pavement of white tesserae, together with a flooring of lime and pounded tiles, supporting the tiles of a hypocaust in rows of about one dozen, two feet (0.61 m) apart; with these were several of the square, hollow tiles, such as were inserted in the walls of domestic habitations, for conveying the heated air from the hypocaust to the apartments, but which were here somewhat out of place, and adapted for the purpose of pillars, by being filled with mortar. These remains must therefore have been long posterior to the erection of the great wall crossing this lane."

The interpretation of this description is uncertain, but essentially it seems that there were two structures—the "great wall" and the mosaic and hypocaust. Roach Smith's reasons for making the statement that the mosaic and hypocaust must be "long posterior to the erection of the great wall" are not clear, though the only alternatives are that he may have considered that the flue tiles used in the hypocaust as *pilae* may have been re-used from the great wall; or that the hypocaust partly overlay the great wall. Of these, the latter seems most likely because he does state that the hypocaust and mosaic were "adjoining the north side of the wall", and were "running absolutely upon it". It is unlikely that he intended that *both* of these phrases meant that the hypocaust lay immediately to the north of the great wall, for he would be merely repeating himself. Instead it seems more likely that he meant that the mosaic and hypocaust overlay the "great wall" and extended to the north of it. As the sewer trench was only about two metres wide it is clear that the hypocaust extended some considerable distance north of the "great wall". Indeed, the twelve rows of *pilae* each two feet (0.61 m) apart must have extended over a length of not less than 30 feet (9.14 m) up the hill, much of it probably to the north of the "great wall".

This "great wall" is recorded on Sewer Drawing 27 (Fig. 8), which states that it was 22 ft (6.7 m) wide. Sewer Drawing 43 (Fig. 9) gives us an additional record which states that the "old stone wall" lay at a depth of 6 ft 3 in (1.91 m) and that it was 5 ft (1.52 m) thick, this latter figure being implied by the note indicating that the base of the wall lay below 6 ft 3 in (1.91 m) of made ground and 5 ft (1.52 m) of old stone wall—a total depth of 11 ft 3 in (3.45 m) below Bush Lane, whereas the base of the new Bush Lane sewer lay at a depth of 13 ft 3 in (4.04 m), two feet (0.61 m) below the bottom of the masonry.

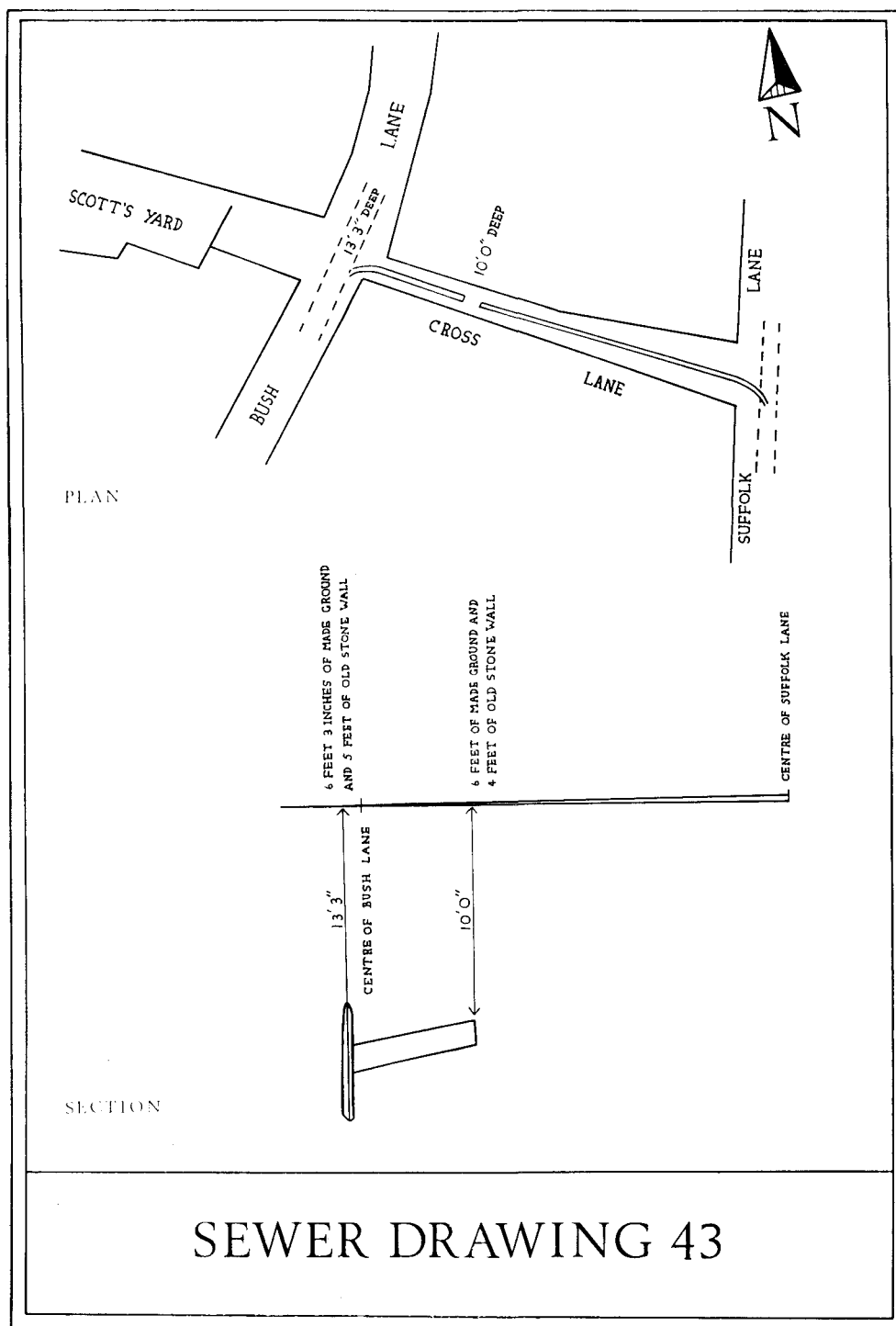


Fig. 9 Roman Palace. Roman walls recorded on Sewer Drawing 43, c. 1840, re-drawn for publication. See Fig. 10 for their location in the Roman Palace

In summary, therefore, it seems that Wall 47 was in fact a raft of ragstone and flint concrete about 5 ft (1.52 m) thick and 20–22 ft (6.1–6.7 m) wide; and that it was partly overlaid by a later Roman hypocaust and mosaic pavement. The massive construction of the concrete raft suggests that it belongs to the initial palace phase. East of this feature the sewer excavation in Gophir Lane exposed an “old stone wall” (Fig. 9), which may have been an eastern construction of the east wall of Room 44 (Fig. 10).

AREA 1. RECONSTRUCTION OF THE ROMAN STRUCTURES (Fig. 6)

If one assumes that the small adjustments made to rationalize the plan (Fig. 6) are reasonable, then it is possible to see a pattern of development in the site, and it is possible to make a tentative interpretation of the plan.

It is clear that the Roman masonry structures fall into three groups: those situated in the northern half of the sites on the highest level; those situated in the southern half of the site on a lower level; and those which have replaced the structures on the southern half of the sites.

The wall just north of Room 33 marks the division between the northern and southern halves of the site, and it is clear that to the south of it was situated a range of rooms which seem to have had hypocausts (Room 39 and, possibly Rooms 34 and 35) and possibly mosaic pavements judging from the tesserae and flue tiles found in the filling of the early medieval pit dug into Rooms 34 and 35. There were clearly subsequent modifications to these rooms, as is indicated by the flue (40) in Room 39; and it would seem that the hypocaust (36) may have been built into the north end of the great hall (42). The concrete “raft”, Wall 47, remains an enigma which can only be clarified by further excavation beneath Bush Lane itself, but its massive size, and that of Wall 46, indicates that they were constructed during the early palace phase.

In the northern half of the site the pattern of walls again suggests a range of rooms, not necessarily contemporary with the range of rooms in the southern half of the site. Walls 45A–45D are particularly interesting, and could be interpreted as possibly a range of rooms between Walls 45B and 45C and bounded by two corridors 45A–45B and 45C–45D. The possibly robbed Walls 31 and 32 may have been a westward extension of Walls 45B and 45C, which were not found on the Bush Lane House site because the modern cellars were too deep in that area.

This structure could, in fact, be interpreted either as a northern part of the north wing of the palace, or as a building pre-dating the palace which was located close to the southern edge of the Roman road beneath Cannon Street. Clearly it is necessary to excavate in Bush Lane itself and to the east to resolve these problems. If it was an earlier building, however, it is unlikely that the area north of Chamber 38 was an entrance courtyard of the palace.

The slightly oblique alignment of the wall on the north side of “Room” 38 is puzzling and, in spite of the similarity of its construction to the south wall of Room 38, it could belong to a pre-palace phase of construction. Alternatively, however, it may simply have belonged to the palace phase forming a corridor linking the range of rooms to the south. Within these alternative suggestions it is difficult to interpret the massive “wall” 46 which was located beneath Bush Lane, but its size indicates that it was probably constructed during the main palace phase when the monumental “state rooms” were being constructed.

Traces of structures which completely replaced the earlier palace structures were also found. On the Dyers Arms site a drain made from tiles was found lying on top of the east wall of Rooms 34 and 35, and this could only have been constructed after the wall had been demolished. Under Bush Lane House the sunken Room 41 had been constructed on a new alignment and cutting across the earlier “palace phase” structures. Under Bush Lane itself a mosaic and hypocaust were discovered, probably overlying part of Wall 47, and were certainly later in date than Wall 45.

AREA 2 (Figs. 1, 10, 11)

A group of rooms and possibly other structures of monumental size and massive construction were originally ranged along the north side of the garden-court of the palace. These clearly formed a central feature in the palace complex and are thus referred to as the “state rooms” (Fig. 10).

Possibly central to the group of rooms was a massive hall, Room 42, while at the east end there was the large apsidal Chamber 44. Unfortunately, however, the plan of these structures is incomplete, and there has been some difficulty in linking up parts of the whole Roman building found on adjoining sites at different times, this particularly applying to the southern or garden-court frontage of the state rooms. For this reason it has been necessary to rationalize what would otherwise be a disjointed and meaningless plan.

The structure of the "state rooms" was recorded in four stages, each independent of the others, and it was only when the last was completed that any suggestion of a coherent pattern began to emerge. Firstly, various walls were recorded during the excavations of about 1840 to construct sewers beneath Bush Lane, Cross Lane and Gophir Lane. These were described by Charles Roach Smith who, unfortunately, made no plan of the remains.³¹ By good fortune, however, and perhaps because of the interest shown by Roach Smith, somebody (probably the foreman) sketched the positions of the Roman walls onto the old sewer plans and, wherever it is

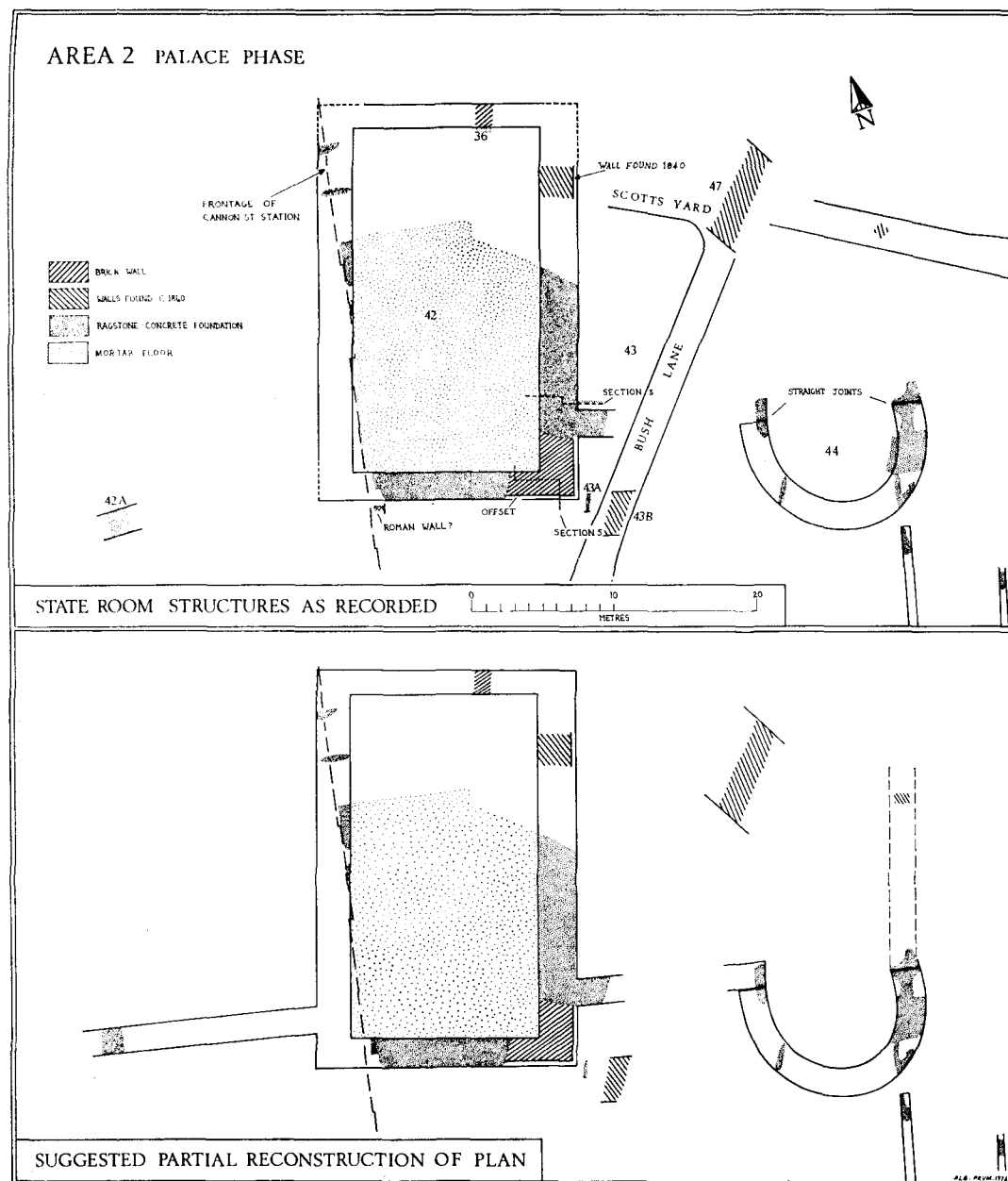


Fig. 10 Roman Palace. Area 2. Plan of the "state rooms" of the palace as recorded (upper) and as partly reconstructed (lower). The large rooms overlooked the ornamental garden-court (Area 3) to the south

possible to check, it seems that almost all Roman walls that were encountered were recorded. Secondly, the walls of the great hall, Room 42, were later recorded by the author during the excavations to build Elizabeth House, and it was here that a Roman wall was found continuing east of Room 42. This wall, which forms the southern boundary of Room 43, was only seen during the rebuilding operations, and the angle that it formed with the east side of Room 42 could not be determined and was presumed to be a right-angle.³² Thirdly, archaeological excavations also by the author, to the east of Bush Lane in the area subsequently re-developed for office accommodation, revealed the apsidal Chamber 44, together with evidence of a wall foundation whose alignment, if extended westwards, links up almost exactly with the position of the wall found on the east side of the great hall. This alignment is diagonal to that of the great hall but, for the reasons stated below, it seems reasonable to conclude that it did exist. Fourthly, another palace foundation, 42A, was recorded by the author within the inner recesses of the vaulted lower part of Cannon Street Station and, although detailed measurements were taken, it was not possible to determine its position or alignment with great exactitude, though its distance west of the east wall of the Station is accurate. What was clear, however, was that the wall was on an alignment diagonal to that of the great hall, this wall being discovered before the excavation was undertaken which revealed the diagonal wall adjacent to the apsidal Chamber 44. It is now clear that if the line of the diagonal frontage wall to the east of the great hall is extended westwards it comes very close to the foundation 42A found beneath the Station. In all probability, therefore, this diagonal line is the garden-court frontage of the state rooms. Not only was this view supported by the fact that the fragments of the frontage wall were all of similar thickness, but also that, although the pre-war basements were deep to the east of Bush Lane opposite the great hall 42, they were not deep enough to remove the bottom of the foundation of Room 44, and had there been any other massive monumental frontage walls and structures associated with the state rooms, they would have been found. No such structures were found, however.

The construction of the "state rooms" walls was extremely distinctive and most unusual in London, for they were of exceptional hardness. The foundations were built of Kentish ragstone and a little flint set in a matrix of extremely hard creamy coloured concrete. There was no evidence of any layering of stone and concrete such as occurs, for example, in the defensive Roman city wall. The hardness of the concrete and its binding ability is such that when the foundations of the great hall, 42, were being demolished, the fractures split across both the concrete and ragstone as if both were one. The foundations have all the appearance of having been poured into the foundation trenches, though there was some evidence of efforts at stone facing in the foundations. Little of the walls above had survived later Roman demolition and robbing, and subsequent disturbances on the site; but at the south-east corner of the great hall, Room 42, was found a small surviving portion of the wall which was built of layers of bricks set in the very hard light-coloured concrete.

ROOM 42 (Fig. 10)

This was a very large hall about 13.1 m wide and probably 24.38 m long internally, floored with buff mortar about 0.23 m thick situated at about 7.31 m above O.D. The bottom of the foundations of the east, west and south walls lay at about 3.00 m below the Roman floor level of the hall. The thickness of the foundations varied for each wall, the south wall fronting on the garden-court being 2.01 m thick, the east wall being 2.74 m thick, and the west wall being about 3.00 m thick. The foundation of what was probably the north wall was not disclosed, but the wall above was 1.68 m thick. Most of the walls above the foundations had been destroyed both by later robbing and by the construction of later buildings on the site, but at the south-east corner of the hall they survived to a height of more than 1.52 m above the Roman floor level (Fig. 11, Section 5). Internally the lower 0.91 m of wall was faced with Kentish ragstone, and above that were ten courses of red bricks. On the exterior south and east faces and level with the bottom of the brick courses, was an offset of 0.35 m below which the wall had been faced with red bricks horizontally laid, the bottom of the bricks presumably being at the level of the north side of the garden-court.

Adhering to the wall faces inside the hall were traces of a plaster rendering which had been painted white (Fig. 11, Section 3). Not enough of the actual wall structure had survived to show if there were any external or internal mouldings, pilasters, or other ornamental features. It is reasonably certain, however, that there were no projecting buttresses, though a stone foundation (Fig. 12) of possible Roman date just south of the great hall and another, 43A (Fig. 12) just beyond the south-east corner may have been some form of projecting buttresses though, as the latter lay in front of the offset on the wall, it is much more likely that it was the base of a different structure, perhaps an ornamental feature in the garden-court.

The exterior face of the great hall was not studied in detail because it was merely uncovered to be destroyed during the excavations for rebuilding the site. During this limited study, however, no trace could be found of any external mortar or stone rendering to the wall, and it is fairly certain that the bricks formed the

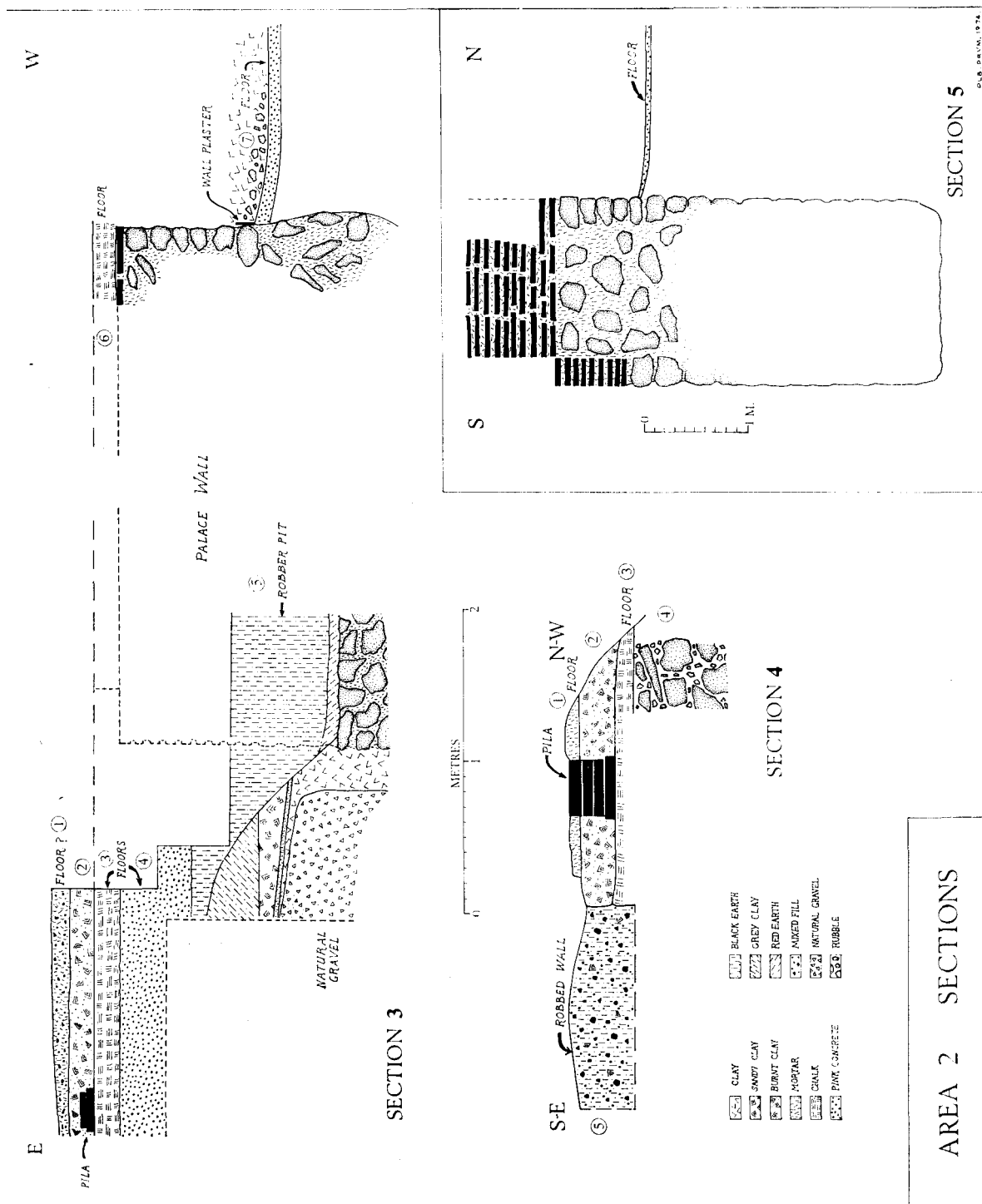


Fig. II Roman Palace. Area 2. Sections showing both the palace (Sections 3, 5) and post-palace (Sections 3, 4) Roman buildings.

actual visible facing (Fig. 11, Section 5), a view supported by the presence of facing tiles below the offset on that face.

The exterior offset on the east wall of the great hall clearly extended along the entire side for it seems that the east wall was discovered in 1840-41, when a sewer was constructed in Scott's Yard (Fig. 10). The discovery is described as follows:³³

"In Scot's Yard . . . at a depth of eight feet (2.44 m), was another wall, eight feet (2.44 m) thick, composed entirely of oblong tiles and mortar. It descended to the depth of thirteen feet (3.96 m), where, alongside, were pavements of lime and gravel . . ."

It would seem that the sewer excavation did not reach down to the foundation level, and that only the brick upper construction rather than the stone lower work was encountered. Roach Smith did not record the position of the wall, though it is almost certainly the wall sketched on Sewer Plan 27 (Fig. 8) which is described as having been 6 ft (1.83 m) thick and "about 7 ft (2.13 m) below the surface". Presumably the reference to more than one pavement in Roach Smith's article may mean that mortar floors lay both inside the great hall and to the east of the hall. The recent excavations disclosed a large area of mortar flooring in the great hall, this being approximately 0.075 m thick. No evidence was found to suggest that there was a quarter-round moulding at the junction of wall and floor. The floor of the hall was evidently kept scrupulously clean, for nowhere in the destructive rebuilding excavations was any trace seen of "occupation debris", and instead the floor was overlaid by dumped brickearth containing ragstone rubble. It is presumably indicative of the restricted use of the hall that there was only one floor surface, though it is possible that earlier phases of flooring had been removed when the last floor was laid.

A short length of what was probably the north wall of the hall, 42, was uncovered at the south end of the Dyers Arms site during 1966, and, as already mentioned, was 1.68 m thick (Fig. 8, Section 2). Five courses of red bricks overlay the lower part of the wall, which was built of ragstone. The bottom of the courses of red brick here was about 1.22 m above the level of the bottom of the courses of bricks at the south end of the hall. Some 0.05 m below the bottom of the bricks, at 8.46 m above O.D., was a buff-coloured pebbly mortar floor adjacent to the south side of the north wall. This portion of the floor was therefore about 1.14 m above the general floor level of the major part of the hall. Upon this small exposed portion of mortar floor lay two brick *pilae*. Overlying the floor was a deposit of black earth 0.10 m thick and this was overlaid by thick deposits of Roman mortar dust and rubble.

In view of the high level of the floor and the presence of the *pilae* (which did not occur further south in the hall) it is possible that the floor and *pilae* are a later Roman construction and are not part of the original structure of the palace. On the other hand they may have formed part of a heated raised dais at the north end of the hall. Only further excavations beneath Scott's Yard can solve this problem, for lack of space made it impossible to excavate beneath the mortar floor supporting the *pilae*.

WALL 42A

This was a Roman foundation 1.83 m thick, built of Kentish ragstone set in exceptionally hard light-coloured concrete. Its position within the station basement area could only be approximately established in 1961, though it is certain that it lay 15.9 m west of the inner face of the east wall of Cannon Street Station.

WALL 43A

A foundation of ragstone and flint set in yellow mortar, about 1.14 m thick, was found just beyond the south-east corner of the great hall (42). It is unlikely to have been a supporting buttress for the hall, not only because of its small size compared with the massive structure of the great hall, but also because it was, or seemed to be, a separate structure not actually attached to the hall. It is probably best interpreted as the base of some ornamental feature in the garden-court, though its close proximity to the wall 43B suggests that both structures may have been associated.

WALL 43B

An "old wall" was discovered in 1840-41 during the construction of the sewer in Bush Lane, and, judging from its size, it seems likely to have been of Roman date. Its position is sketched on Sewer Plan 27 (Fig. 8) where it is shown as 3.05 m thick and diagonally crossing Bush Lane at a depth of 1.83 m. No wall of similar size has been found on the adjacent sites on either side of Bush Lane, except the much narrower and possibly associated foundation 43A.

REGION 43

This is the area between the great hall, 42, and the large apsidal chamber 44. For reasons already stated, it seems most likely that the garden-court frontage of this area was a diagonal wall, though this needs con-

firmation by future excavation. It is difficult to judge the nature and purpose of the structures in this area, this being somewhat complicated by the fact, as indicated by the discovery of about 1840 in Scott's Yard, that the external offset of the great hall, Room 42, extended throughout the east side of the hall in the area of Region 43. The floor of Region 43 adjacent to the great hall seems to have been mortar similar to that used inside the great hall. A trace of flooring seems to have been found in Scott's Yard, during 1840-41, and another at the south-west corner of the region adjacent to the great hall (Fig. 11, Section 3). Region 43 is largely unexcavated as it mostly lies beneath Bush Lane, where it has been to some extent protected by the modern street.

Three factors may have a bearing on the interpretation of this region of the palace. Firstly, the distance between the great hall, Room 42, and the apsidal chamber 44 is about the same as the width of 44, this presumably, indicating some form of symmetry. Secondly, the account of the nineteenth century sewer excavations in Bush Lane has no mention of having encountered a cross-wall between Rooms 42 and 44, possibly indicating that there was a gap in the wall, perhaps forming an entrance from the garden-court into the state rooms area. And thirdly, that the structures 43A and 43B to the south of this possible gap may have formed part of a monumental entrance. Unfortunately, the evidence is inconclusive and can only be explained by further excavation.

ROOM 44

This was an apsidal chamber 8.84 m wide and 6.4 m deep internally. Only the bottom of the foundations remained beneath the deep modern cellar floor, the bottom of the Roman foundations lying at about 5.64 m above O.D. in natural gravel. The lower part of the foundations comprised layers of ragstone slabs pitched at an angle, and mortar, above which the foundation was 2.08 m wide and strongly built of ragstone set in hard buff mortar and a rough facing of ragstone blocks.

The apse appears to have been built onto a wall, for, at the north ends of the apse, were foundations which were separated from the apse by straight joints. There was no trace of any cross-foundation closing the apse, though the separate foundations at the north end may be an eastward extension of the garden-court frontage wall of the Region 43, the gap presumably being an opening into a room to the north.

AREA 3 (Figs. 12, 13, 14)

The "state rooms" fronted on to what must have been a large ornamental garden-court situated on the same terrace level as the state-rooms and the east wing of the palace (Area 4). In the centre of the garden-court was an enormous pool 10.06 m wide, more than 30.48 m long and about 1.83 m deep, with certainly one, and probably two, minor pools on its north side. The limits of the garden-court are difficult to exactly define with certainty but it would seem that it was about 33.83 m wide and at least 36.58 m long (Fig. 12).

The garden-court was built on thick deposits of dumped clay and gravel (Fig. 14, Sections 8, 9), but it is unfortunate that the actual surface of the garden could not be examined during its destruction by the mechanical excavators. Judging from the bottom of the exterior facing bricks of the great hall, Room 42, however, and from the floor levels and dumped clay deposits under and adjacent to the east wing (Area 4) it seems most likely that the general surface of the garden-court lay at about 6.71 m above O.D. Certainly the dumped deposits in the garden-court area have been found to survive up to about 5.79 m above O.D., above which they have been destroyed.

It is unfortunate that the boundaries of the garden-court could not have been investigated in greater detail with a view to determining their exact layout. The limited evidence, however, suggests that the east side was bounded by a straight wall, and that the north and south sides were more irregular in plan.

THE NORTHERN BOUNDARY OF THE GARDEN-COURT

The northern boundary of the garden-court includes the south wall of the great hall, Room 42, as well as fragments of walls and foundations which do not seem to have comprised continuous walls. Had they been so they were so massive that they would have been easily visible in the builders' excavations. It is difficult, on the available evidence, to reconstruct the plan of the northern limits of the garden-court, but in view of the irregular frontage of the apparently continuous building line of Rooms 42-44 it seems most unlikely that a stylobate was included. Instead, it seems likely that there were a series of foundations and piers some of which may have supported a vaulted superstructure, while others were the bases of ornamental features in the garden. It is particularly interesting and possibly significant that these massive foundations occur along the area in front of the "state rooms". The difficulty of interpretation is that insufficient has been found to show any suggestion of the symmetry of planning that one would expect in the garden-court of a Roman palace.

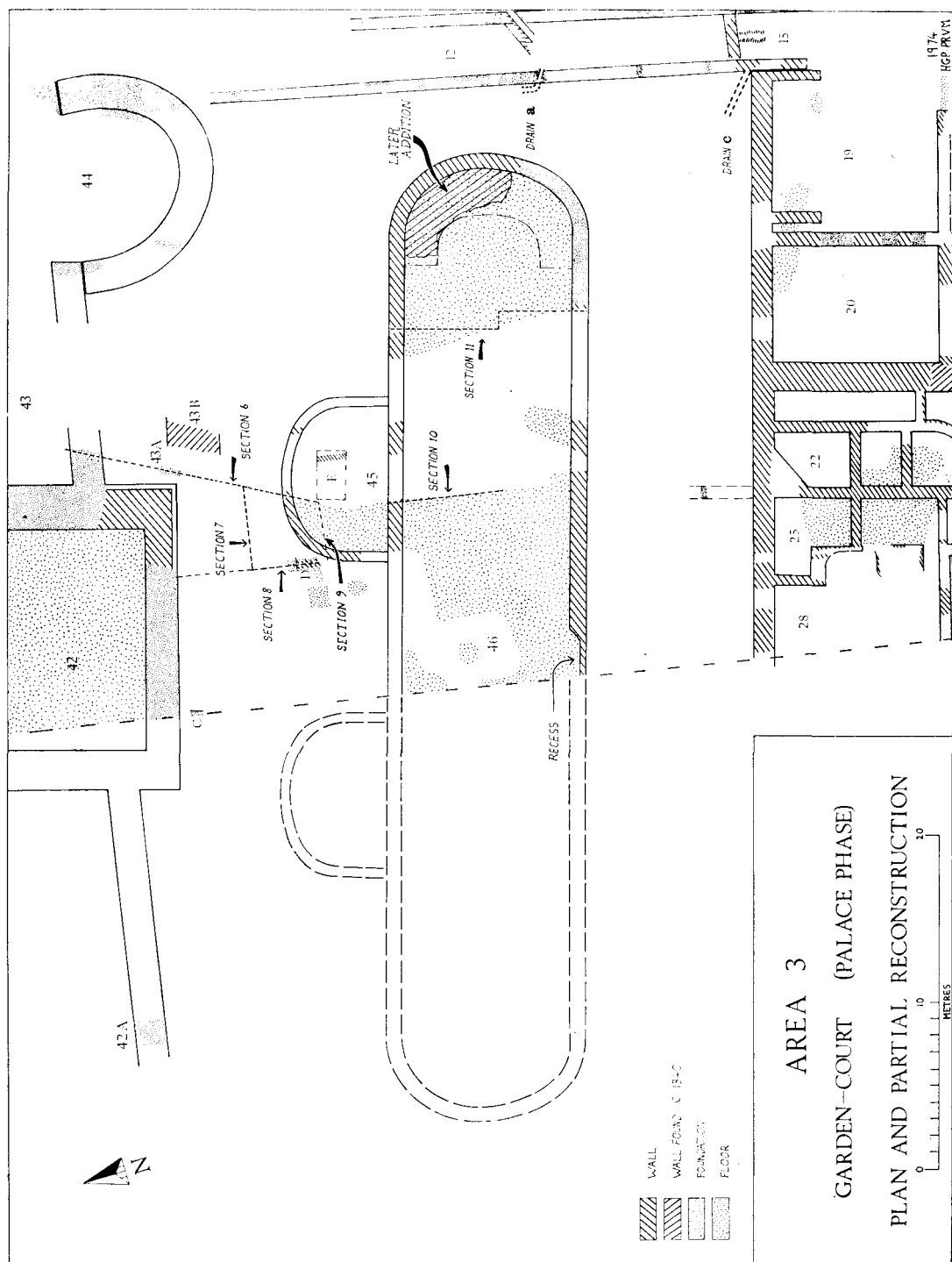


Fig. 12 Roman Palace, Area 3. Partially reconstructed plan of the garden-court of the palace

STRUCTURE 43A

This is a foundation of concrete and Kentish ragstone which was recorded during the recent rebuilding excavations. It was only observed in the face of the contractors' excavation on the site of Elizabeth House. It was apparently 2.29 m thick and had an offset in its foundation on the north face. Its very close proximity to Structure 43B indicates that the two walls were related, though only further excavation can resolve the problem.

STRUCTURE 43B

This is a wall found about 1840 while constructing the sewer in Bush Lane. It is recorded on Sewer Plan 27 as 3.05 m thick and 1.83 m below the road surface (Figs. 8, 12).

STRUCTURE C

In 1961 a small hole excavated beside Cannon Street Station revealed a fragment of Roman ragstone foundation of similar construction to the massive foundations of the period 1 "state rooms". It was more than 0.69 m thick, the west side lying beneath the east wall of the station. The east face was discovered, however, and it was aligned roughly north-south. This foundation could have been a projecting structure against the south wall of Room 42, but it is unlikely to have been a buttress or otherwise part of the wall itself as other buttresses were found along the south side of Room 42. Indeed, the frontage of Room 42 could not have been ornamented with buttresses and other architectural features which would require foundations projecting into the garden-court.

THE EASTERN BOUNDARY OF THE GARDEN-COURT (Fig. 12)

No evidence of any surface of the garden-court was found adjoining the east wing of the palace (Area 4), this evidently having lain above 5.79 m above O.D. and having been destroyed. The eastern boundary of the garden-court, however, appears to have comprised the straight outside wall of the corridor bounding the east wing. No other Roman structures were found in this area other than two drains which appear to have drained away from the garden-court into the main drain underlying the corridor, Room 12, and Room 15.

DRAIN a

This was a small drain 0.23 m wide which ran alongside the edge of the garden-court and sloped down to the south. The drain then turned eastwards to pass through the outer wall of the corridor (Room 12) of the east wing to join the main drain which apparently ran down the centre of that corridor (see p. 39).

In the court area the drain was built on a large slab of stone, possibly Purbeck marble, which had been carefully shaped and evidently had been re-used. The stone slab measured 0.75 m long, 0.48 m wide and 0.12 m thick. On it had survived a small portion of the west side of the drain built of the ends of flanged roofing tiles set in brown mortar. This was very similar to the construction of the drain that passed through the east wall of the corridor (see Fig. 17B).

DRAIN c

This was a timber drain observed during the contractors' excavations, sloping down to the south-east toward the south end of the corridor of the east wing of the palace. Its construction and level could not be recorded due to the circumstances of its discovery and rapid destruction, but it was noted that the drain was buried in the dumped deposits of clay and gravel which comprise the garden-court. It seems likely that the drain may have been taking surface water from the court or, indeed, to have been an overflow drain for the great ornamental pool in the middle of the garden-court; and that the water was being drained away to join the main drain underlying the corridor, Room 12, of the east wing of the palace.

THE SOUTHERN BOUNDARY OF THE GARDEN-COURT

The southern boundary of the garden-court was fronted by a substantial retaining wall 1.22 m thick which supported the great dump of sand and gravel which comprised the sub-soil of the garden-court, whose original surface level is estimated to have been about 6.7 m above O.D. On the south side of the retaining wall were the surviving floors of the "south wing" of the palace, the levels of which were at about 3-3.35 m above O.D. Unfortunately, the ground immediately on the north side of the retaining wall had been dug away quite deeply in recent times, and any trace of walls that might have lain immediately north of the retaining wall and in the garden-court had been destroyed. Nevertheless, at one point, north of Room 25, a small portion of a foundation of ragstone and yellow mortar was found with its base set in the dumped clay and gravel of the terrace at about 3.00 m above O.D.

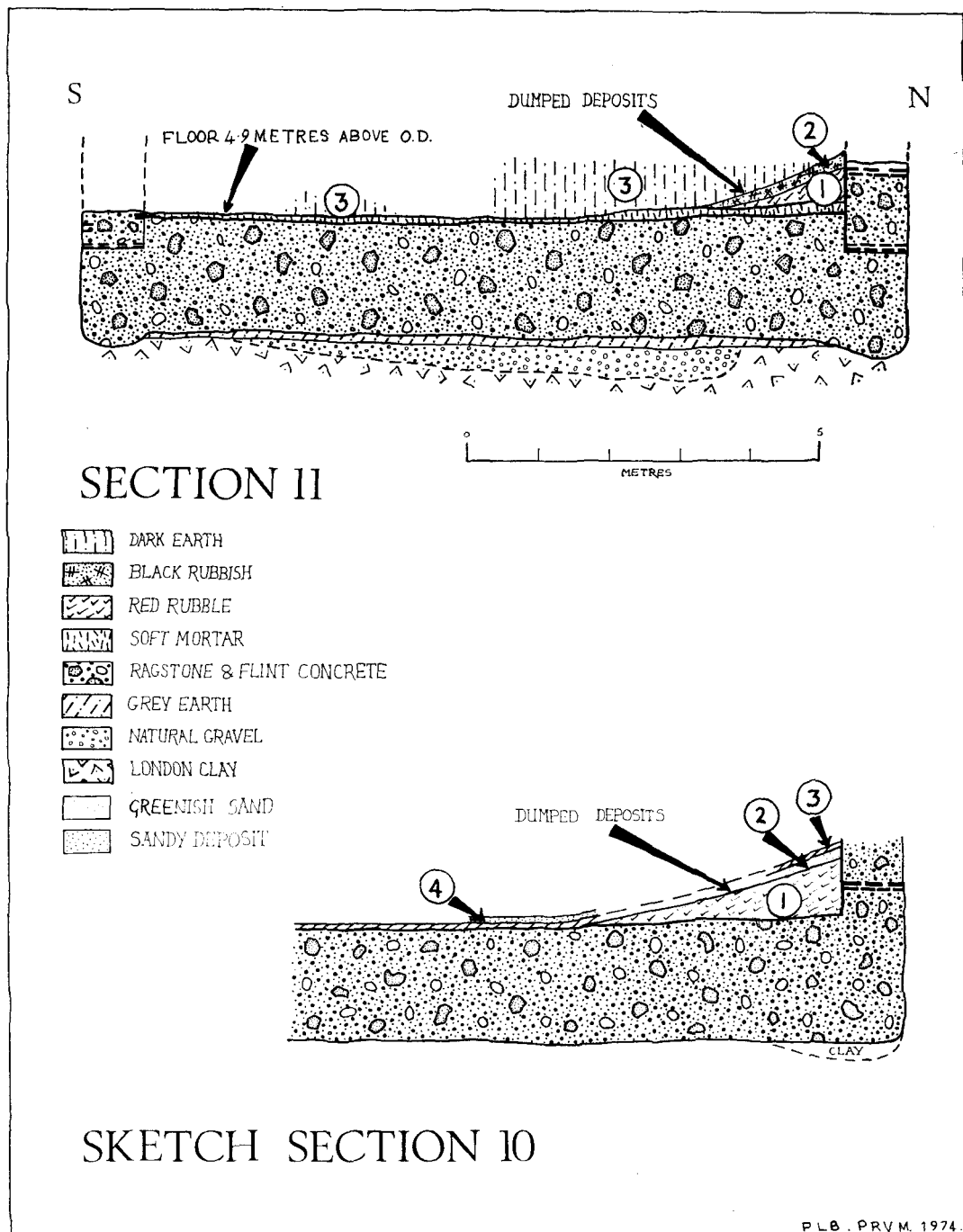


Fig. 13 Roman Palace. Area 3. Sections 10 and 11 across the great pool (Feature 46) showing the dumped deposits against the north wall

The great depth of this foundation which, from its construction appears to be of Roman date, suggests that some part of the palace may have extended northwards from the south wing into the garden-court. In this connection it is perhaps significant that the foundation is on the same line as the east wall of Room 25, thus strengthening the interpretation that the foundation belongs to the palace phase. The great depth, about 3.66 m, of the foundation below the surface level of the garden-court suggests that there may have been an access route at several intermediate levels between the two terrace levels.

THE CENTRAL COURTYARD AREA AND THE ORNAMENTAL POOLS (Figs. 12, 13)

In the centre of the courtyard and aligned on the main east-west axis of the palace was a great sunken ornamental pool (Feature 46) internally 10.06 m wide and more than 31.09 m long. Projecting from the north side of the pool near its eastern end was an apsidal exedra (Feature 45) which presumably also contained water as its floor was also sunk below the level of the garden-court. What appears to have been the mortar surface of the garden-court was found (Fig. 14, Section 8) and below it traces of some substantial but ill-defined ragstone foundation construction (Feature D) located just west of the smaller pool (Feature 45).

THE GREAT POOL (46)

The floor of the great pool comprised a layer of buff mortar at 4.88 – 5.18 m above O.D., which overlay a massive sunken platform or foundation of very hard ragstone and flint concrete about 1.83 m thick which conformed to the shape of the pool. The foundation mostly comprised ragstones, flint and an exceptionally hard buff or white concrete which was characterized by many small lumps of chalk or lime, as well as rounded flint pebbles (Fig. 13, Sections 10, 11). The foundation was not apparently built in layers, but had the appearance of having been poured almost in one mass and in such a way that there were few air pockets left in the foundation. That the foundation had been laid in a series of loads, however, was indicated by concentrations of flint in some places and ragstone elsewhere in the usually almost white concrete. This “massive” construction is typical of the Roman period in London and was very similar to the construction of the foundations of the “state rooms” of the palace.

The wall forming the sides of the pool was 0.91 m thick and was set into the edge of the concrete platform. It was built of hard ragstone concrete with double courses of bonding tiles at intervals, and its inner face was rendered with hard pink mortar. The lowest double course of bonding tiles lay about 0.50 m below the floor of the pool, and the ragstone facing of the side wall extended down to the level of the tiles through the concrete of the platform (Fig. 13, Sections 10, 11; Plate 3).

It would seem that the great pool was constructed as follows: firstly, a deep hole was dug in the dumped gravel and clay forming the garden-court terrace; secondly, the lower 1.22 m of the great concrete raft was constructed with the base of the raft extending roughly another foot deeper around its edges, presumably to give a more solid foundation to the surrounding wall of the pool. The wall was built firstly with a double course of bonding tiles, then about five courses of stone, which were in turn overlaid by another double course of bonding tiles, above which were more courses of stone. The wall surrounding the pool survived in places to a level of 6.4 m above O.D., but its top had been broken away. The courtyard surface was presumably at a somewhat higher level, either flush with the original top of the wall or a little below it.

On the south side of the pool, beside Cannon Street Station, there was a recess in the wall 0.61 m deep and more than 2.13 m long. The purpose of this is unknown.

The east end of the pool was rounded and rendered on its inside with a thin layer of pink cement. Unfortunately, it had been considerably damaged in recent times, and as it was destroyed quite rapidly during the recent building operations it was not possible to examine the area in detail for traces of any possible ornamentation, though no obvious structures other than the later modifications were found.

THE SMALL POOL (45) (Fig. 12; Fig. 14, Sections 6, 9)

This small pool was apsidal in form, and measured internally 8.84 m long by 5.79 m wide. Its surrounding wall was 0.61 m thick and built of ragstone with triple courses of bonding tiles at intervals. No clear trace of any mortar rendering in the inner face of the room was found though, as the structures were found during building operations, it was difficult to establish some details of the construction.

The massive concrete platform which underlay the great pool (46) did not extend beneath the smaller pool (45). Instead its floor was of yellow mortar between 0.076 m and 0.152 m in thickness, lying on a layer of rubble at about 5.41 m above O.D.—about 0.30 m above the bottom of the great pool.

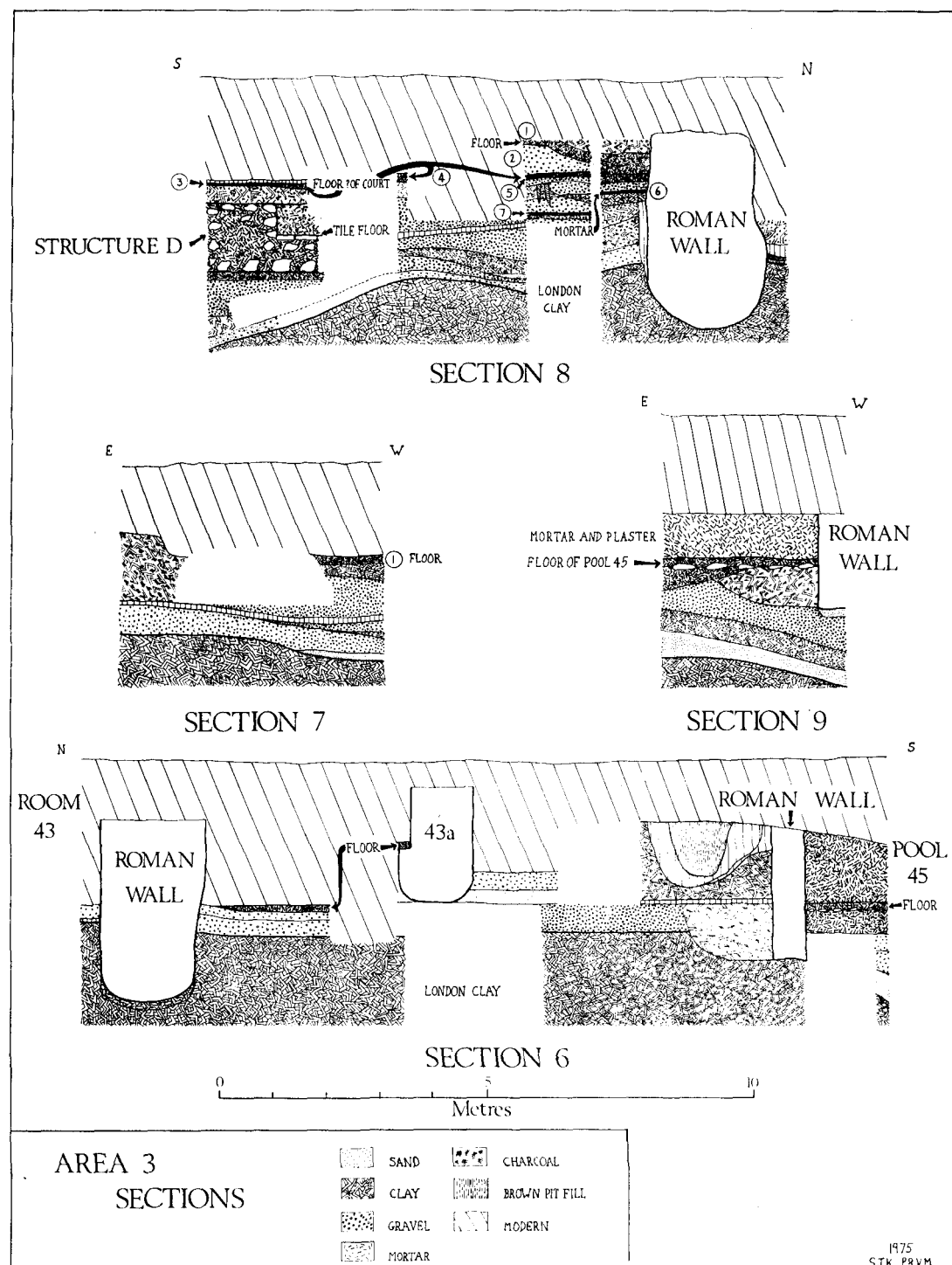


Fig. 14 Roman Palace. Area 3. Sections 6, 7, 8, 9 in the garden-court area

STRUCTURE E

In the centre of the pool there was a construction of Roman bricks and ragstone (E) perhaps forming some kind of decorative pier. The structure was discovered in 1960 during the excavation of a tunnel beneath Bush Lane to divert the nineteenth century sewer prior to the rebuilding of the area. The tunnel, dug from south to north, firstly cut through the 0.91 m thick north wall of the great pool, and it was observed that grey sandy silt lay against the south side of the wall (*i.e.*, inside the basin of the great pool). It next cut through the "pier", Structure E, which was only observed in the west face of the sewer tunnel. It could not be found on the base of the tunnel which lay above the bottom of Structure E, and it was not found in the east section of the tunnel where there was no obvious sign of disturbance which might have destroyed the structure.

Structure E had a core of ragstone concrete, above and to the south of which was a solid mass of Roman brickwork set in cement. A vertical south face of bricks set in cement was found aligned east-west and standing 1.14 m above the bottom of the tunnel. Above this the facing bricks had been destroyed but the brick core survived to an additional height of 0.25 m, showing that the whole structure was standing 1.4 m above the tunnel floor level, which itself lay above the floor of the small pool. The structure extended northwards from the south face for a distance of 1.68 m but, unfortunately, no clear sign of its northern limit could be found. Just north of this, however, was found the apsidal wall of the pool.

Where the western part of the pool was excavated no trace of any similar interior brick or stone construction was found to exist in that area, indicating that Structure E was probably some form of central ornamental brick pier, perhaps for a fountain or statue.

STRUCTURE D (Fig. 12; Fig. 14, Section 8)

This was an ill-defined ragstone structure lying immediately west of the small pool (45). Unfortunately, it could not be stratigraphically related to either of the pools, but it does seem to have been overlaid by the mortar layer which is believed to have been the "floor" of the garden-court. The structure appeared to partly comprise a wall of ragstone and yellow cement with a face roughly aligned east-west, and on its north side a floor of Roman tiles overlying a foundation of ragstone concrete 0.46 m thick. There is no clear indication that this structure, whose extent is shown on the plan (Fig. 12) belongs to the palace phase. It is overlaid by the mortar floor (Fig. 14, Section 8), however, which might suggest that it belongs to a pre-palace phase; but its substantial construction and the apparent absence of other structures which could have belonged to a pre-palace phase suggests that Structure D was part of the palace construction.

The tiled "floor" of Structure D lay below the surface of the garden-court, and at about the same level as the floor of the small pool. As it was somewhat narrow in extent it seems reasonable to suggest that the whole structure might have been part of the water-supply system for the pools at an early stage in the palace phase.

DESCRIPTION AND INTERPRETATION OF SECTIONS

These sections were recorded by Gordon Davies for the Museum under the extremely difficult building site conditions which did not allow for a fully detailed description and interpretation to be made. Nevertheless, the sections are extremely valuable and clarify some details of the history of the palace.

SECTION 8

This shows, at the north end, a section across the south wall of the state room (42). Unfortunately, it was not possible to record its construction in detail though it was noted that it was largely composed of Kentish ragstone, flint and white concrete. The bottom of the foundation was dug into the London clay. To the south of this wall were various layers of gravel and clay, evidently dumped to form a hillside terrace, perhaps as a preparation for the palace.

A layer of mortar (Layer 7) indicates possible construction in the area prior to the construction of the "state rooms", for the foundation trench of the south wall of Room 42 is cut down through these dumped gravel deposits.

At the south end of the section is the masonry structure (Feature D) and above it and the dumped gravel deposits, and overlying the filling of the foundation trench of the south wall of Room 42, is a layer of mortar (Layer 6) about 0.076 m thick. Perhaps mortar deposits 3, 4 and 5 formed the floor of the garden-court, which must, on stratigraphical grounds, be later than Structure D. It is possible, however, that the masonry structure D belongs to an early phase of the palace, and that the mortar floor above the structure represents a later modification of the palace.

The layers above the Roman mortar floor are very fragmentary, though the presence of some mortary rubble (Layer 1) and gravel deposits (Layer 2) suggests that the land surface was deliberately raised at a later Roman date, perhaps to accommodate the next phase of building after the demolition of the "state rooms".

SECTION 7

The deposits in this section again largely comprise layers of gravel, some of which was no doubt natural. The mortar floor, which is interpreted as being part of the surface of the garden-court, was also located, though it would seem that there may have been some later digging to destroy the palace phase deposits (Layer 1).

SECTION 6

This north-south section clearly shows the form of the southern foundation of Room 43. Once again the details of its construction could not be recorded during the building operations, but it was noted that the foundation was largely built of Kentish ragstone, flint and white mortar. To the south of this the section was very disturbed, though the section across Structure 43A shows that a small portion of mortar floor, probably the floor of the garden-court, overlay the northward projecting foundation of the structure. The Roman wall itself above the floor level was constructed of ragstone, flint and yellow mortar.

The section between Structure 43A and the north side of the small pool (45) is similarly disturbed and it is not possible to give a reasonable interpretation of the stratigraphy. It may be assumed, however, that the gravels in the lower part of the section were part of the dumped or even natural deposits which occurred in the adjoining sections.

Of particular value is the partial section through the small pool, Structure 45, at the south end of the section. In this case the concrete and stone floor of the pool was located, 0.15 m thick, and beneath it dumped layers of sand, gravel, clay and building debris. Above the floor the pool was filled with a layer of mixed mortar and plaster rubble which had been apparently dumped.

SECTION 9

This east-west section, also across part of the small pool (45), includes deposits of dumped gravel, etc., below the concrete floor of the pool, and the later debris of mortar and plaster with which the pool was filled.

AREA 3. RECONSTRUCTION OF THE GARDEN-COURT (Fig. 12)

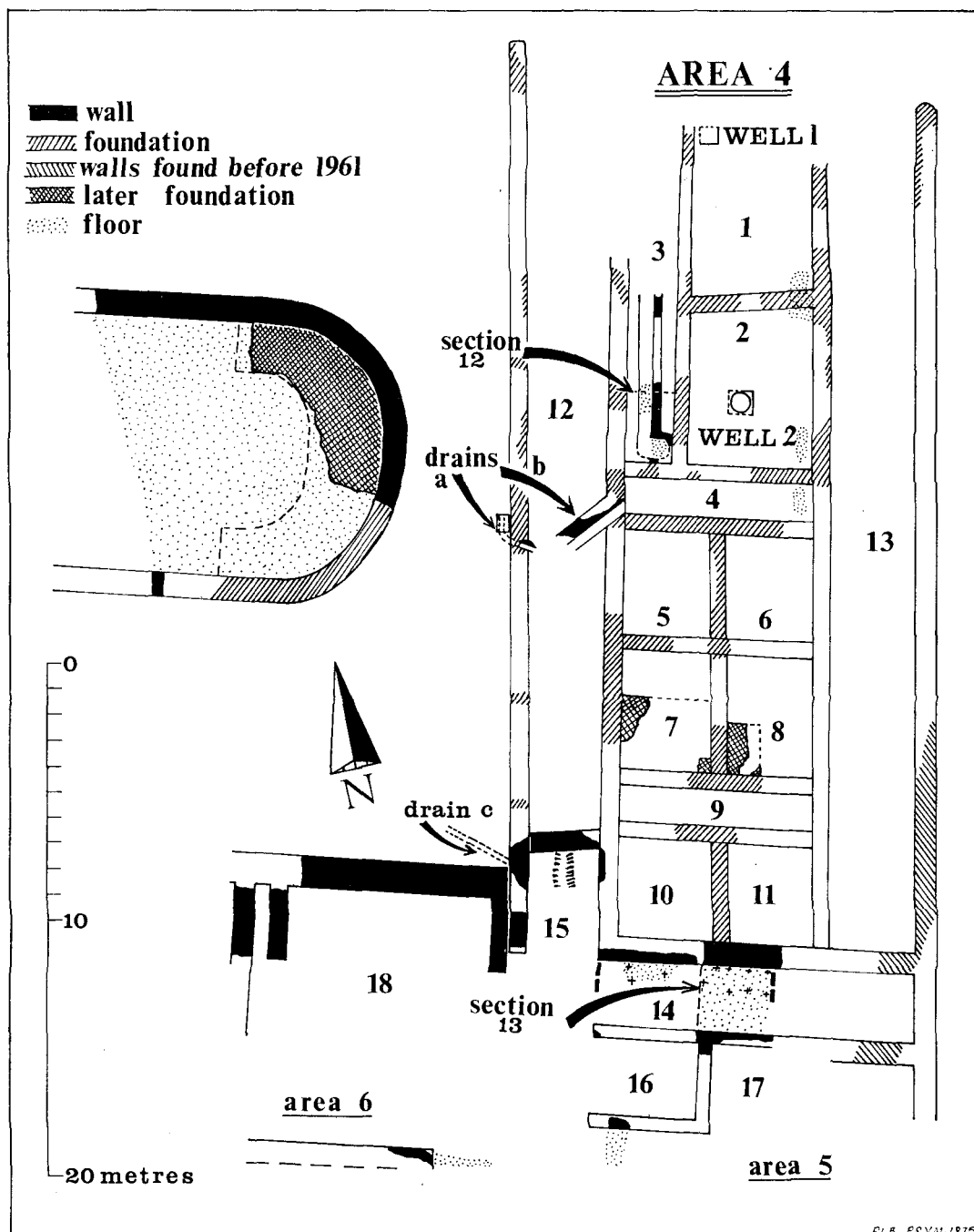
The garden-court is very difficult to reconstruct on the available evidence, except in the most general way. Nevertheless, several factors seem to be fairly clear regarding the original layout of the garden-court.

A reconstruction of the general size and form of the garden-court may be based upon the assumption that there was a fair degree of symmetry in its planning and that, as far as the existing evidence indicates, the great pool (46) was located along the main central east-west axis of the garden-court and parallel to both the retaining wall of the south wing, and the great hall (42). In this connection it is worth noting that the plan of the great pool is reflected by a change in the plan of the rooms between the north and south ends of the east wing of the palace.

Of greater importance in judging the original complete size of the pools is the north-south axial line which seems to follow the east face of the east wall of the great hall (42), for if projected southwards across the garden-court to the south wing, it not only passes through the centre of the smaller pool (45), but also picks up the line of one of the major north-south walls of the south wing.

Assuming a degree of symmetry (p. 65) and that the pools are, as the evidence suggests, linked to the great hall (42), it is reasonable to expect that for the sake of completeness the undiscovered west end of the pools links up with the west side of the great hall. On this basis we might expect another small pool, like Pool 45, in line with the west face of the west wall of the great hall and adjacent to the great pool (46). In addition, it is reasonable to expect that the west end of the pool is situated the same distance westwards from the great hall (42) as does the east end lie to the east. The suggested plan reconstruction is shown in Fig. 12 and happily it would be possible to check this suggested reconstruction plan by excavation in the arches beneath Cannon Street Station. If this reconstruction is correct then the great pool can be estimated as having been internally 54.25 m long—large enough to hold a very considerable body of water to justify the very massive and thick ragstone concrete foundation.

It is unfortunate that careful excavation to expose the surface of the garden-court was not possible as it is clear that the garden was not merely a plain open space. It is called a garden-court because it was decorated not only with pools but also with foundations, perhaps of statues (Fig. 12, Structures A, B, C, D). The location of these foundations appears to be somewhat random in contrast to the symmetry of the pools, and indeed the apparent lack of symmetry and constant alignment of the southern frontage of the "state rooms" needs careful explanation, which the present evidence cannot supply. This alignment, fortunately, can be checked by excavating beneath Cannon Street Station in the future. Nevertheless, assuming that the plan of the frontage of the "state rooms" has been correctly reconstructed, it is difficult to see in this any suggestion that a stylobate had once existed.



Although the archaeological features are somewhat unclear in the garden-court, it is interesting that such traces as there are tend to be in the area opposite the south end of the great hall (42) to the south wing, as if to suggest that here there was a concentration of the ornamentation presumably based on the outlook across the garden-court from the south end of the great hall.

AREA 3. MODIFICATION TO THE GREAT POOL (46). (Figs 12, 15)

During the modern building operations when the east end of the great pool (46) was destroyed, traces of a later Roman modification to the pool were found. This was a brick structure about 2.44 m thick built inside the curved end of the pool, its later date being implied by its having been built up against the pink plaster rendering of the pool.

AREA 4 (Figs 15, 16, 17 and 18)

This wing fronted the east side of the ornamental garden-court of the palace, and terminated at its south end with a retaining wall forming the edge of the next terrace about 3.35 m below. Although only its foundations had survived beneath the modern concrete cellar floors, the presence of the lower parts of some of the Roman underfloor heating and drainage ducts indicate that the Roman floor did not lie much above the surviving tops of the foundations, perhaps at 6.4 m–6.70 m above O.D., whereas the foundations foundations survived up to about 5.79 m above O.D.

The wing comprised (Fig. 15) a central range of rooms (Rooms 1–11) bounded on the west side by a corridor (12), and probably by another corridor on the east side (13). The rooms seem to comprise two distinct groups, the large rooms 1–3, and the smaller rooms 4–11 which had been laid out with almost military regularity. It is likely that the floor levels of some of the rooms had been stepped up the terrace a little, as there were marked differences in level of the bottoms of the various wall foundations. Those in the region of Room 1 lay at a base level of 5.18 m–5.49 m above O.D., whereas the foundations of Room 2 descended to about 4.72 m above O.D., while the bottom of the wall foundations for Rooms 4–11 lay as deep as about 2.74 m above O.D., about 3.35 m below the probable floor level of these rooms. It is likely, however, that the base of the Roman wall foundations largely reflect the slope of the hillside, and that they were constructed to lie on the natural subsoil beneath the dumped clay and gravel forming the terrace.

Unfortunately it was not possible to section the sub-floor deposits of dumped material beneath Rooms 7–11 to determine the sequence of wall construction and dumping, but it seems clear that a considerable amount of dumping must have taken place *after* the foundations had been built on the hillside, as only this will satisfactorily explain the great depth and comparatively narrow width of the wall foundations; also why the foundations were faced; and finally that the dumping could only have occurred after a retaining wall, presumably the south wall of Rooms 10 and 11, had been built (Fig. 17A). As evidence of earlier pre-palace occupation had been found under Rooms 5–6 and northwards in the form of rubbish pits, it is clear that the additional dumping within the walls of this wing must lie south of this and largely under Rooms 7–11.

It might be argued that some of the foundations, which form box-like structures, were constructed to tie the wing together below ground level, perhaps comparable with the wooden waterfront structures found recently in London on the Custom House³⁴ and New Fresh Wharf sites, and that the pattern of the foundations may not exactly reflect the rooms above ground level. It would seem that this was not so, for wherever they were investigated the foundations of Rooms 4–11 were seen to be separated by straight joints and were therefore not “tied” together. Consequently it is clear that the wing in Area 4 was constructed as follows (Fig. 16): firstly, the four main north–south foundations were built, together with Rooms 1 and 2 which were linked by a dividing east–west wall bonded into the north–south walls of the rooms. Also it seems that the retaining wall on the south side of Rooms 10 and 11 was also built at this primary stage. Secondly, the five east–west partitions on the alignment of the south wing were constructed. Then, finally, the three north–south partitions were added forming the small box-like chambers (Rooms 5, 6, 7, 8, 10 and 11).

Most of the wall foundations of Rooms 1–11 were about 0.61 m thick, though the foundation of corridor 12 was 0.76 m thick, and the east wall of corridor 13 was 0.91 m thick, suggesting that they may have carried a greater weight than the inner rooms. The foundations were constructed of Kentish ragstone set in a brownish-yellow mortar on a base of loose small lumps of ragstone.

ROOM 1:

Room 1 was a chamber about 4.57 m wide and at least 6.1 m long. Its north wall was not found even though the area beyond the surviving north end of the room was carefully excavated, and it is clear that the base of its foundation must have lain above the levels of the other three walls surrounding the room. This implies that if there had been yet another room further north, its floor level would be above that of Room 1.

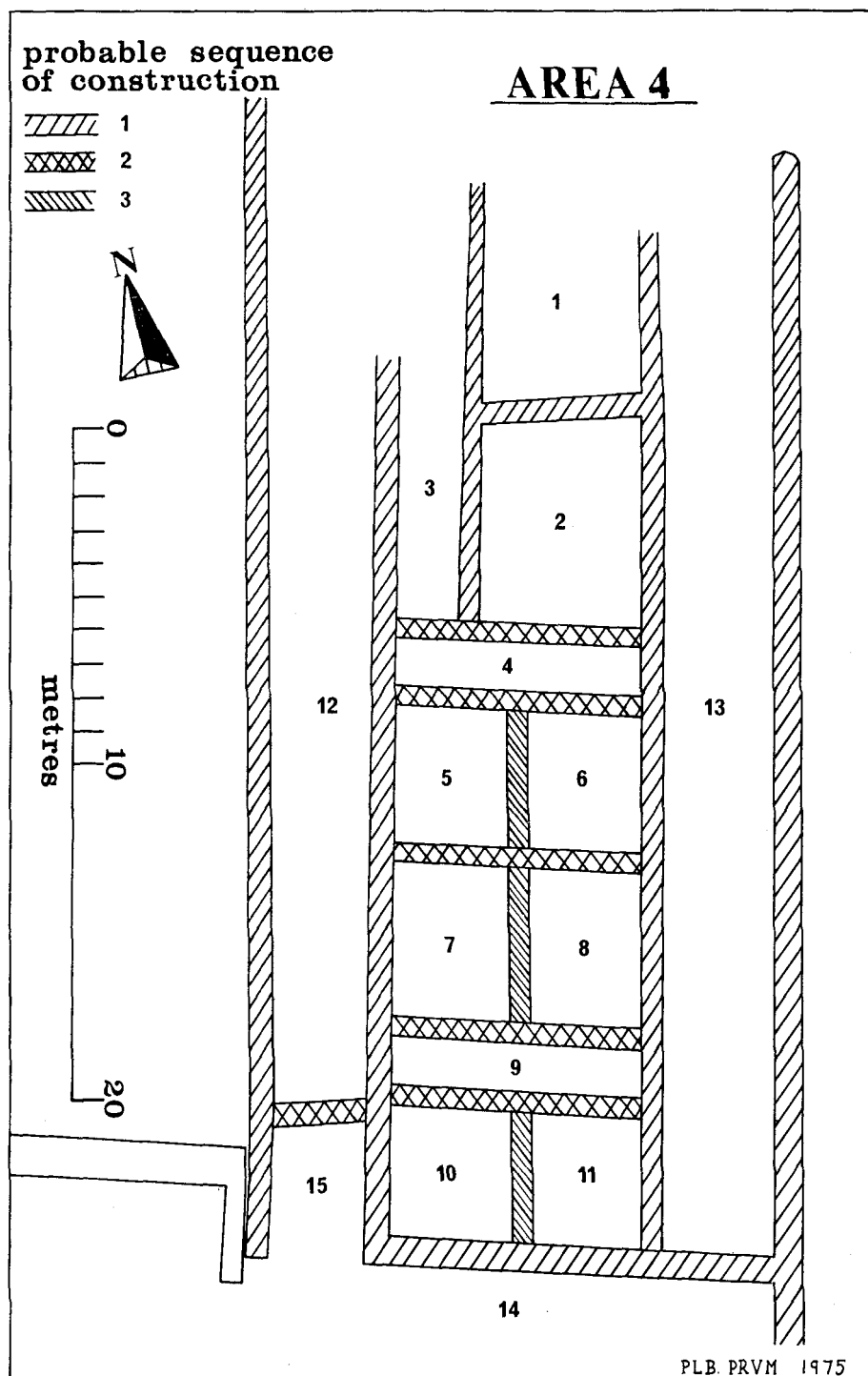


Fig. 16 Roman Palace. Area 4: the probable sequence of construction of the east wing of the palace, based on the evidence of the straight joints between the foundations

It is perhaps significant that the step up in foundation level at the north end of this room approximately coincided with the length of the adjoining Room 2, and that like Room 2, Room 1 was 6.1 m long. No certain evidence of the form of the floors in the wing was found, but in the south-east corner of Room 1 a small area of ragstone rubble lying in a greenish earth about 0.30 m thick was found which also overlay the wall between Rooms 1 and 2, and was located in the north-east corner of Room 2. This rubble, where it overlay the wall, supported a layer of pink *opus signinum* in a rather damaged state.

ROOM 2

The foundations of the north, west and east walls of this room were bonded together, showing that they had been built simultaneously. The south wall, however, abutted up against the east wall of the room with a straight joint and, although the junction of the west and south walls had been destroyed by a medieval pit, it may be inferred that here, too, there was a straight joint. More ragstone rubble, similar to that found underlying the *opus signinum* at the north end of the room, was found inside the south-east corner of the room and may indicate the position of another part of the mostly destroyed duct system.

ROOM 3

Room 3 was only 1.8 m wide, but it was more than 6.1 m long. Unfortunately, its northern end could not be established in the limited time available for the archaeological excavation. Within this room was a particularly interesting structure which appears to have subsided into the dumped clay subsoil (Fig. 17, Section 12). The structure appears to have been a flue or drain running the length of Room 3, and terminating at the south end of the room in an enlarged hollow against the wall separating Rooms 2 and 3. The foundation of the "duct" comprised a layer of ragstone lying in a greenish-coloured soil very similar to that which was found in Rooms 1 and 2 and, as will be seen, also in Room 4. The ragstone rubble in Room 3 was covered by a layer of pink cement. The east side of the duct was bounded by a retaining wall, faced only on the west side. It was built of roof tiles set in yellow mortar, with the tile flanges lying towards the wall face; and the face was rendered with pink cement. The west side of the duct was destroyed, but may be inferred to have been the west wall of the room. This duct structure was clearly inserted into the underlying dumped clay, judging from the rough unfaced east side of the duct wall, and was no doubt some form of underfloor "service" in the building. Its purpose is not absolutely certain, but it is most likely to have been either a hypocaust flue or drain. If it had been the latter then one would have expected some silt to lie in its bottom, especially in the slightly deeper hollow at the south end of Room 3. Instead the fill at the south end was an ashy earth, which indicates that it was probably a heating flue. If this is correct, then it may be inferred that a furnace was situated beyond the north end of Room 3, and that the flue not only heated Room 3, but also the enlargement of the flue at the south end of the room fed hot air into a hypocaust beneath Room 1. And in view of its similar construction it is reasonable to suppose that the line of ragstone at the north-east corner of Room 2 indicates the position of a flue feeding warm air into a hypocaust beneath Room 1, while the rubble at the south-east corner of Room 2, and at the east end of the passage, Room 4, channelled warm air beneath Room 6 (Fig. 15).

ROOM 4

Room 4 was a short passage which measured internally 7.31 m long, and 1.45 m wide. It linked the two main north-south corridors 12 and 13, and perhaps gave access to Rooms 2, 5 and 6. No trace of the walls above foundation level or the floor had survived. A drain of tiles and mortar—Drain "a" (Fig. 17B) — was found passing down through the foundation at the west end of the room into the western corridor, Room 12.

ROOMS 5 AND 6

Rooms 5 and 6 were two identical box-like chambers judging from the plan of their foundations, and each measured 3.35 m by 3.96 m. Their floors had not survived, though the discovery of patterned Roman mosaic fragments in the modern rubble make-up below the concrete cellar floor suggests the possible nature of the floors here.

ROOMS 7 AND 8

Rooms 7 and 8 measured 4.57 m by 3.35 m and were almost identical in size and shape to Rooms 5 and 6. The interior of Room 7 was occupied by a medieval pit and, although there were fragments of Roman mosaic in the recent rubble foundation for the modern concrete cellar floor overlying that room, it is clear that they could not have been derived from Room 7, since its floor had already been destroyed.

ROOM 9

Room 9 was a short connecting passage between Corridors 12 and 13, almost identical in every respect to the other passage Room 4. No trace of its floor had survived. Apart from connecting the two corridors, it presumably also gave access to Rooms 7, 8, 10 and 11.

ROOMS 10 AND 11

Rooms 10 and 11 were of similar size and shape to Rooms 5 and 6, though only the foundations survived below floor level. Room 10 measured 3.96 m by 3.5 m, and Room 11 measured 3.96 m by probably 3.2 m. These rooms were badly damaged because there was a downwards step in the level of the modern concrete cellar floors approximately across the middle of the rooms.

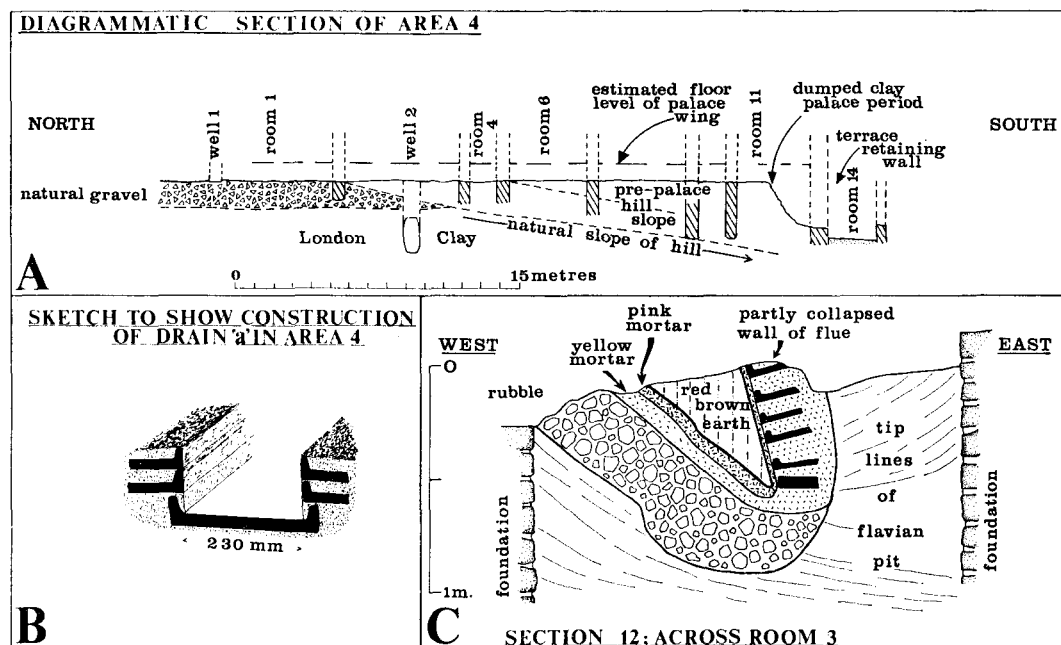


Fig. 17 Roman Palace. Area 4: (A) Diagrammatic north-south section along the east wing of the palace; (B) sketch to show construction of drain "a"; (C) Section 12, across a probable flue in Room 3, distorted by subsidence into an earlier pit

THE CORRIDOR, ROOM 12

The north-south Corridor 12 was situated on the west side of the wing overlooking the garden-court of the palace. It was approximately 2.9 m wide, and at least 21.33 m long and, if it reached as far north as Room 44, it must have been 30.48 m long. Its floor had been destroyed and only its ragstone and mortar foundations remained, the base level of the foundations becoming increasingly shallow the further north they continued until, at the extreme north end of the west wall of the corridor, only the lowest course of stones survived.

Two drains (a and b, Fig. 15) were found which originally flowed through the side walls of the corridor, evidently downwards towards a central drain, which was not excavated, but which can be inferred to have run north-south down the middle of the corridor beneath the floor to issue out through the retaining wall at the lower terrace level in Room 15, where it was discovered. Drain "b" crossed the west wall of the Passage 4, and sloped down towards the middle of the corridor where it had been destroyed by a medieval pit. Only the lower part of the drain had survived but clearly it was originally of substantial size as it measured 0.53 m wide internally. Its sides were constructed of broken roof tiles set in pinkish mortar so that their flanges formed the inside face of the drain, while the bottom of the drain was formed of pinkish mortar—the whole construction being very similar to the probable hypocaust flue in Room 3. Only a very short length of

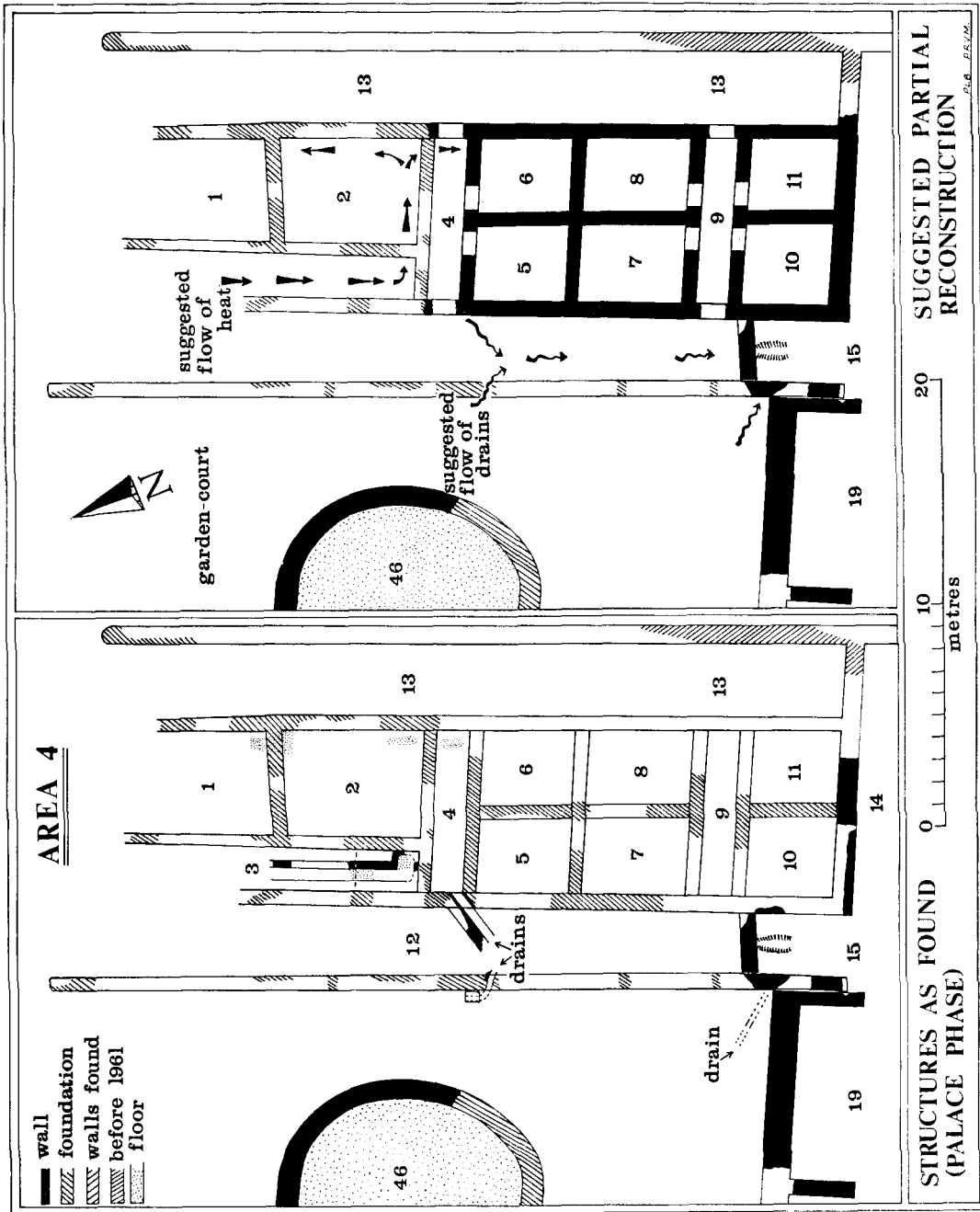


Fig. 18 Roman Palace. Area 4. Plan of palace phase structures as found (left), and a suggested partial reconstruction of the wing (right)

Drain "a" was found, and it survived in two fragments, the first outside the west wall of the Corridor 12, where the drain was found to slope down to the south, and the second where the drain had been built into the foundation of the west wall of the corridor enabling it to drain water *into* the corridor. This latter fragment sloped down towards the middle of the Corridor 12, presumably the join up with the presumed central drain which originally continued southwards down the middle of the corridor. Only the lower part of the drain survived in the wall foundation and its bottom comprised a series of Roman roofing tiles laid endways to each other and set in mortar, while the side walls of the drain were built of fragmentary roof tiles set in brown mortar, and their flanges were so placed as to form the sides of the drain. This drain, which sloped down towards the inside of the corridor, was only 0.23 m wide internally (Fig. 17B), and was clearly a minor drain, the purpose of which was probably to remove surface water from the garden-court to link up with the main drainage beneath the Corridor 12. Unfortunately a medieval pit had destroyed the junction between Drains "a" and "b" but, judging from its size, it is clear that Drain "b" was the more important.

THE CORRIDOR, ROOM 13

The corridor, Room 13, was situated along the whole east side of the range of Rooms 1-11 on the 6.4 m terrace, and it was at least 3.48 m long and about 3.2 m wide. Only its foundations were uncovered in the recent excavations at the north end of the corridor, that is from the position of Room 4 northwards. The evidence for its continuation further south is based upon a nineteenth century record of Roman walls discovered while excavating a trench to construct the sewer in Suffolk Lane (Sewer Plan 302, Fig. 20). This records an eastwards continuation of Room 14, situated on the 3.05 m terrace and, significantly, a length of about 9.15 m of the east wall of the corridor. Had there been additional rooms immediately east of Rooms 9 and 11 it seems likely that the associated transverse walls would have been seen and recorded. In the event there is no such record and it is reasonable to conclude that the corridor extended southwards to the southern edge of the 6.4 m terrace.

AREA 4—RECONSTRUCTION OF PALACE PHASE

It is unfortunate that the construction of the pre-war cellar had destroyed, without any archaeological record having been made, all of the Area 4 wing above the level of the Roman foundations, thus leaving little evidence of the form of its superstructure.

The plan makes it clear, however, that the range of rooms (1-11) lying between the Corridors 12 and 13, comprised two distinct units which meet at the mid point of the wing opposite the axial line of the great pool A. The plan of the northern group of rooms (1-3) is incomplete, but it seems that this was a suite of heated chambers, from which issued a rather large drain. The size of the drain might be indicative of part of the function of the suite, though on the other hand it may merely have been draining natural groundwater dammed back by the terracing of the hillside. Unfortunately, not enough of the structure of these rooms has survived to allow us to attempt a reconstruction of this group of rooms.

The southern group of rooms (4-11) have a completely different layout, however, for the six box-like chambers of almost equal size have an almost military regularity. They could be interpreted as having been three suites of rooms, each comprising a pair of rooms, but, if this was the case, it might be expected that access would be from one or other of the two main corridors (12 or 13). In fact, if each pair of rooms had been linked in this way it should not have been necessary to have had more than one passage linking Corridors 12 and 13, and the fact that there were two passages (4 and 9), and that these were so positioned that each of the six box-like rooms lay beside one of the passages, perhaps indicates that each room had a separate entrance from the adjacent passages (see partial reconstruction Fig. 18). An alternative explanation of Rooms 4 and 9 and, possibly of the narrow Room 3 in the northern suite, is that they contained stairs to an upper floor.

The rubble foundation of what was possibly an underfloor flue, found at the east end of the Passage 4, may suggest that some of the square rooms in the southern unit were heated, but once again the evidence is inconclusive.

There is little evidence of the form of the flooring in this wing except for the mosaic fragments found re-used as foundation rubble in the pre-war concrete cellar floor. The fragments were presumably found when the cellar was being constructed, though this cannot be absolutely definite. If this was the case, however, it is likely that the fragments were recovered from the Area 4 wing, including the now destroyed north end of the wing beyond Room 1, though the cellar floor did extend over the great apsidal state room F and could have been derived from there also.

The level of the missing floor in this wing is naturally only approximately known (Fig. 17A) but, assuming that the rubble and pink cement lining of the "ducts" found in Rooms 1, 2 and 3 at about 5.79 m above

O.D. comprised the bottom of a hypocaust flue, then, judging from the normal vertical dimensions of hypocausts elsewhere, we might expect that the east wing floor level lay at roughly 6.4 m – 6.7 m above O.D.

AREA 4—MODIFICATIONS TO THE “ORIGINAL” PLAN OF THE PALACE (Fig. 15)

The only significant modifications discovered made to the Area 4 wing of the palace occurred in Rooms 7 and 8. These comprised massive foundations of mixed flints and broken Roman tiles in soft deep brown mortar. The full extent of the foundations was not established, but as it seems fairly clear that they were contained within the limits of the two rooms, it seems that the primary phase of the wing was still standing when the foundations were laid. There was no other dating evidence apart from the Roman tiles and, on the grounds of construction, it seems reasonable to conclude that the foundations are of Roman date. It is possible, however, that they are of post-Roman date.

AREA 5 (Fig. 19)

The southern end of the east wing, Area 4, terminated with a retaining wall 0.91 m thick, and south of it lay a lower terrace the floor of which lay at 3.00 m above O.D. This means that, although only the lower 0.91 m – 1.83 m of the retaining wall had survived, it must have been at least as high as the terrace on which the east wing was situated at about 6.4 m above O.D.

Traces of four, possibly five, rooms were found on this lower terrace level, but only parts of Rooms 14 and 15 were archaeologically excavated. The structural features were so complicated and the area excavated was so limited that it was difficult to reach any definite conclusions regarding their significance. Nevertheless, a considerable amount of information was recovered, and it is clear that more than one period was represented.

ROOM 14

Room 14 was about 2.59 m wide and was traced for a length of 6.84 m from its west end. During 1848, while the Suffolk Lane sewer was being constructed, two walls, each 0.91 m thick, were recorded as being 2.74 m apart. The positions of these are sketched on City Sewer Plan 302 (see Fig. 20) and it is clear that they were situated approximately east, and were a continuation of Room 14. The Sewer Plan also shows a wall, 0.91 m thick, running north of Room 14, which would seem to be the east side of Corridor 13 on the higher terrace. Assuming that the walls found under Suffolk Lane are part of Room 14, then it is clear that the chamber was about 12.19 m long, and was perhaps a corridor.

The north and south walls of this room were, respectively, 0.91 m and 0.46 m thick, and were built of ragstone, whitish mortar, and contained a single course of bonding tiles. The west corner of the north wall was built only of red tiles. The floor of the room excavated in 1965 was of a soft grey mortar overlying an earlier floor of similar character. Opposite Room 10, however, it was mostly of thick, hard, white mortar with what seemed to be a red painted surface. At the junction of this part of the floor and the north, retaining, wall was a quarter-round moulding also painted red. This superior floor may have been a survival of an earlier floor of the room, and its greater elegance may indicate that, when first built, the room served a different purpose from its final one. Only small parts of the grey floor underlying the later grey mortar floor could be cleared in the limited time available, and the few small port-holes which were found covered by the later floor formed no recognisable pattern.

During its latest phase and, perhaps, earlier, the north and south walls of Compartment 14 were covered with plaster. Its surface was painted white, and some narrow red lines could be detected. In the limited time available it was not possible to clean the painted plaster to recover the decoration, but the design appeared to be simple. The west end of this corridor was never closed by a wall, but opened directly into Compartment 15 within which was the small open drainage stream. In the northern half of the west end of Corridor 14 were two mortar piers, and 6.55 m further east there were two more. Each of these was about 0.46 m long and 0.17 m wide, and their broken tops stood about 0.51 m above the latest floor level. In each pair, between the two piers, and between the northernmost pier and the retaining wall, there was a post hole 0.15 m square.

In the floor of Compartment 14 there were two groups of post holes, all apparently in the northern half of the room. In the eastern part were three pairs of circular post holes about 0.076 m in diameter and 0.76 m apart. In the western part were five major post holes, the four outer holes being 0.076 m in diameter, and the central hole 0.152 m.

The piers and post holes show that there was a timber structure in the northern half of the room in its latest phase. The pattern of the post holes is puzzling, and it is difficult to determine the purpose of the structure. Since, however, it lay against the retaining wall, it is possible that it was a staircase from the upper terrace level.

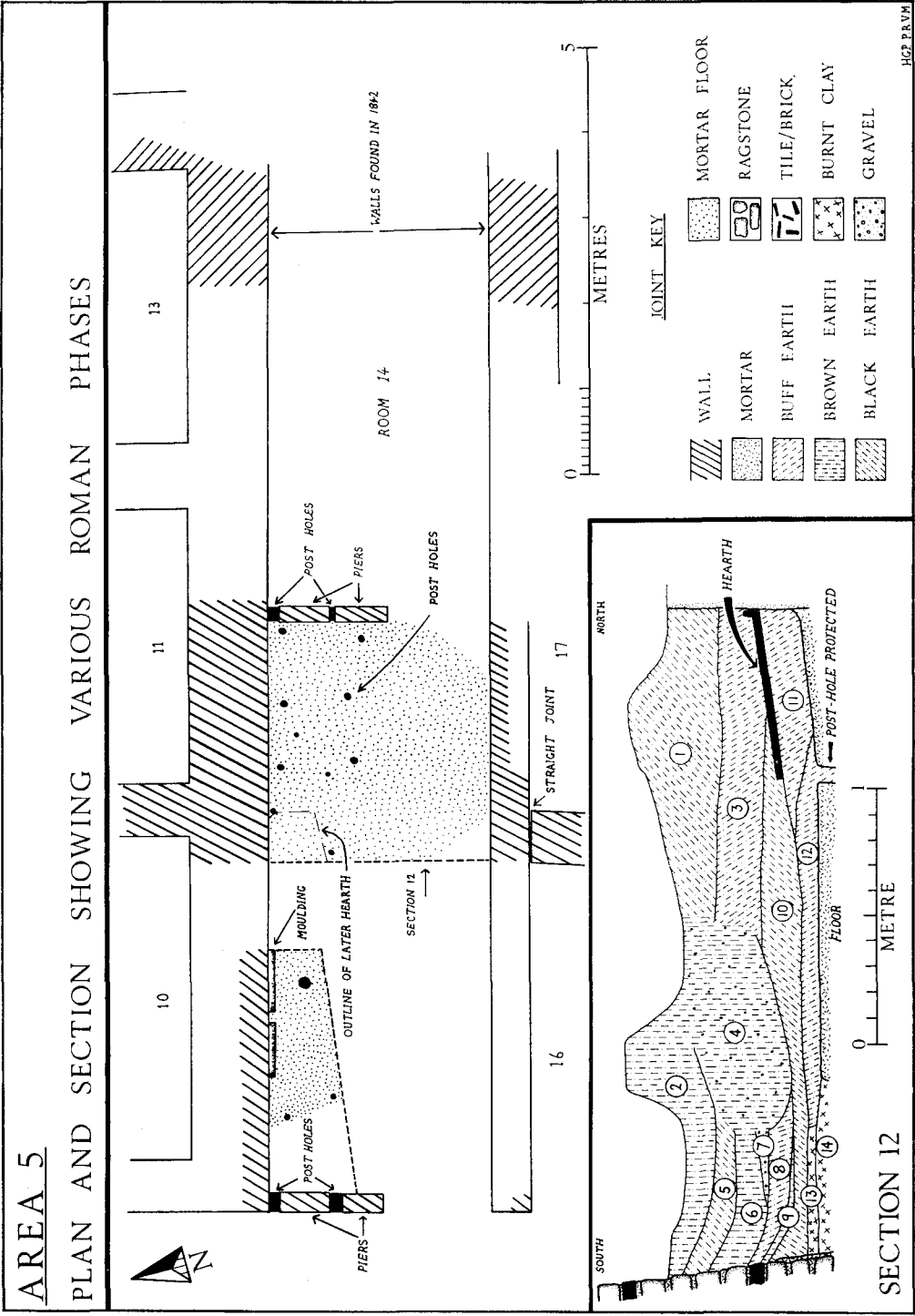


Fig. 19 Roman Palace. Area 5. Plan of room 14, and Section 12 across the room

ROOM 15 (Fig. 18)

The east and west walls of Room 15 on the lower terrace were southward extensions of the side walls of Corridor 12 on the upper terrace. Its north wall was a retaining wall 0.81 m thick which supported the south end of the Corridor 12; and it was not bonded into the east and west walls. The east and west walls of this room were both very roughly faced, unlike the north wall, suggesting that originally the Corridor 12 may have extended south to a point level with the north wall of Room 14, where it may have ended at a retaining wall or a staircase to the lower terrace. Later, perhaps because more space was needed, the south end of the corridor was excavated out, exposing the foundations of the wide walls of the corridor, and a new and properly faced retaining wall was inserted across the corridor at this lower terrace level. Unlike the east and west walls of Room 15, the north wall contained a single course of bonding tiles. At the base of the north wall was a brick built culvert filled with grey silt. On the south side of this was a narrow unembanked water channel about 0.61 m wide and filled with black silt, with its bottom at about 2.74 m above O.D. This channel passed down the middle of Compartment 15, and may have supplied water for sanitary purposes, presumably derived from the drains which were located on the higher terrace. There was no evidence of any covering for the water channel, but all traces of a wooden structure might have disappeared. It seems possible that Compartment 15 may have been a lavatory, to which access was given by Corridor 14.

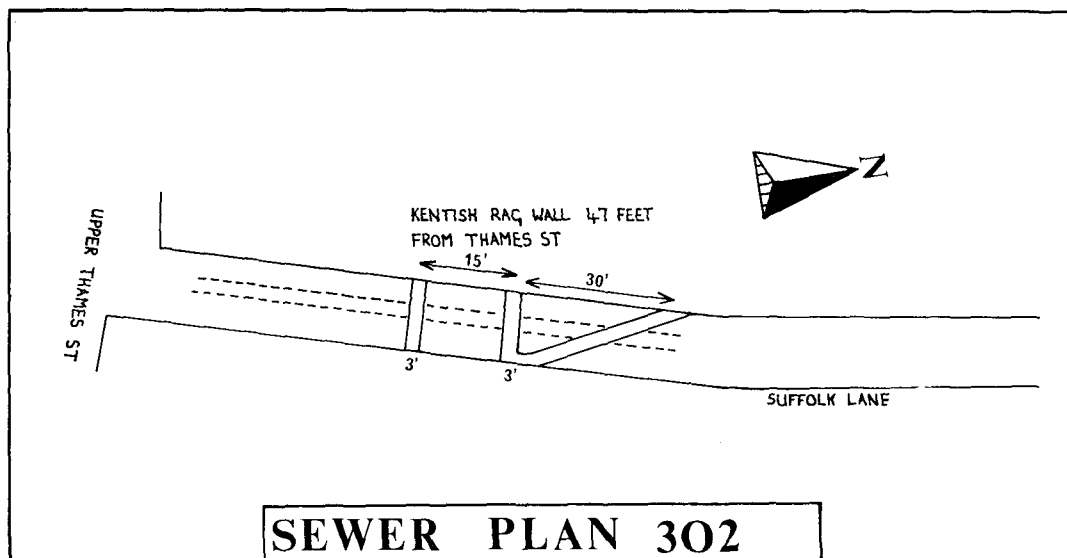


Fig. 20 Roman Palace. Roman walls as recorded on Sewer Drawing 302, c. 1840, re-drawn for publication

ROOMS 16, 17, 18 (Fig. 28)

A series of rooms lay to the south of Room 14, but they could not be properly investigated. Room 16 apparently had no west wall but opened directly onto Room 15. Only the top of the north end of the wall separating Rooms 16 and 17 was found, built up against the southern east-west wall of Room 14, from which it was separated by a straight joint. The thickness of the wall separating Room 14 from Rooms 16 and 17 was 0.46 m, but the wall separating the eastern end of Room 14 from Room 18 was, according to Sewer Plan 302 (Fig. 20), 0.91 m. This implies that a wall may have existed dividing Room 17 from Room 18, but only further excavation beneath Suffolk Lane can clarify the plan of the palace in this area.

AREA 6 (Figs. 21-23)

A substantial retaining wall (Fig. 21), 1.14 m thick and built of ragstone set in yellow-brown cement and containing double courses of bonding tiles, separated the upper terrace of the garden-court at about 6.4 m above O.D., from the south wing terrace in Area 6 at about 3 m above O.D. Only the lower 1.83 m of the wall had survived, however, and it was found to be lying on a foundation of timber piles between 1.52 m and 3.35 m in length, and about 0.15 m square, the lower ends of which were pointed, driven into the underlying soft grey silt and clay.

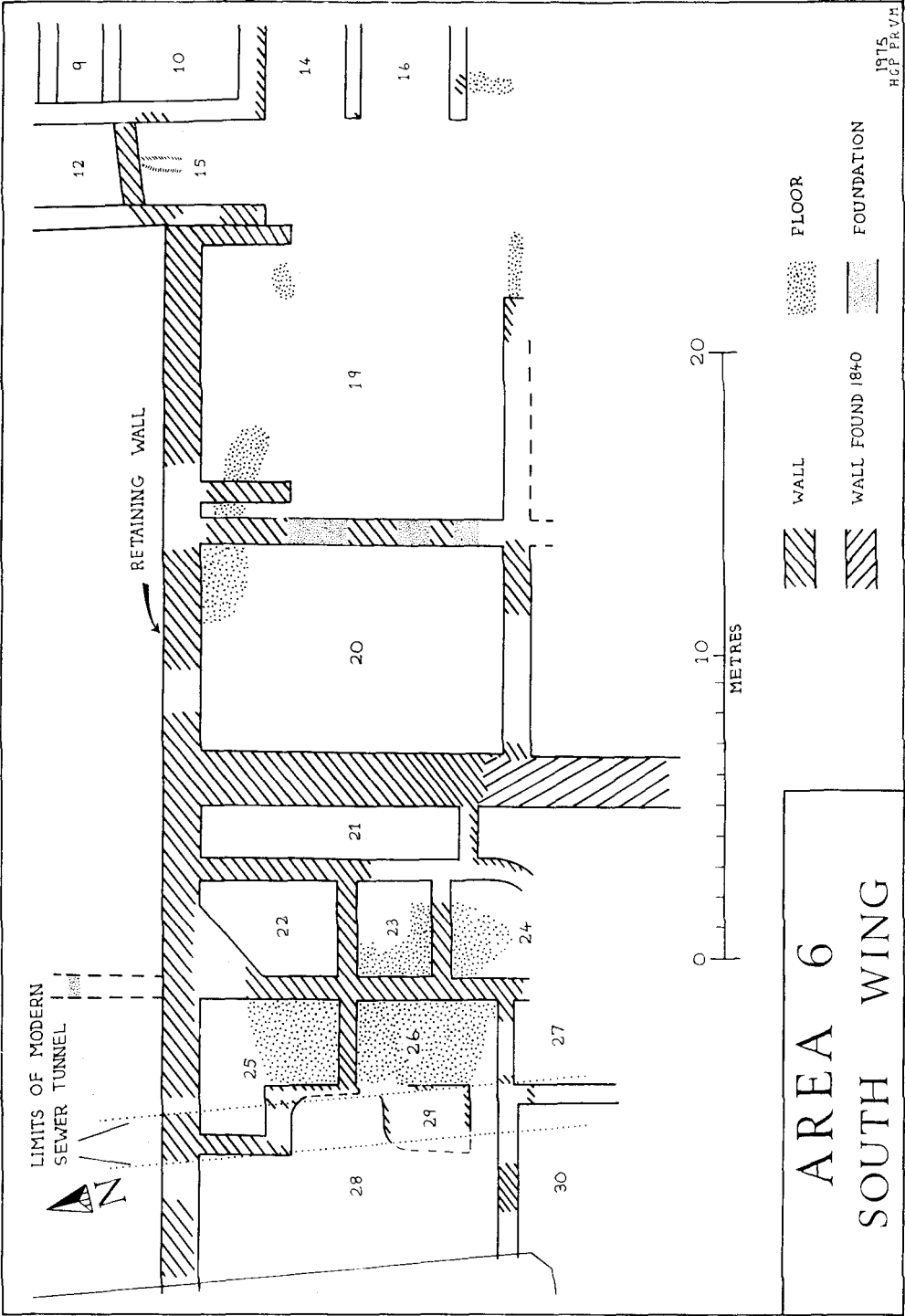


Fig. 21 Roman Palace. Area 6. Plan of the south wing of the palace

Walls of the south wing rooms extended south of this retaining wall and, as they were bonded into the wall, it is clear that the south wing was planned and built as a unit supporting and, therefore, linked to, the garden-court complex on the higher terrace.

It is unfortunate that no archaeological excavation was possible in Area 6 but, by maintaining a very close watch on the contractor's rebuilding excavations, which were carried out both by hand and by mechanical excavator, it was possible to make a record of probably all walls of the primary construction phase. Many details, particularly concerning the positions of doorways, could not be determined however.

The south wing comprised at least two distinct parts, Rooms 19 and 20 and Rooms 21-30, the two groups having been separated by a thick wall, and it is clear that two separate functions are indicated here. Within this layout clear traces of modifications to the original structures were found and, although these could not be traced in their entirety, fairly clear indications of their plan were recovered. Unfortunately, none of the Roman rooms was seen in its entirety, each portion having been separately recorded in the modern builders' trenches in the hope that collectively the portions would form a pattern. Unfortunately, in these circumstances it was not possible to be absolutely certain of all details and further excavation in the future would be particularly desirable.

ROOM 19

This large chamber, measuring approximately 9.41 m (east-west) by 9.91 m (north-south) appears to have had an open east side; and at its north end it had two walls each projecting 3 m south of the north (retaining) wall of the room. The walls were all built of ragstone with courses of bonding tiles, except at the extreme south ends of the short projecting walls which were squared off with bricks. Traces of white painted wall plaster were observed near the bottom of the north retaining wall and on the east face of the westernmost projecting short wall. The floor of the room was a rough earthy mortar which lay at about 3.66 m above O.D.

It is difficult to see how this chamber, with its open east side, could have been roofed over; and if it had been roofed then the function of the two 3 m projecting walls would be difficult to interpret, for they were both longer than was necessary to have been mere buttresses supporting the north retaining wall. Indeed, the close proximity of the westernmost short wall to the west wall of the room (a distance of only 0.56 m) also suggests that it was unlikely that the short wall was simply a buttress.

The most likely explanation of the function of the room is that it was not roofed but was an open yard in which the two projecting walls supported a lean-to roof against the retaining wall, thus forming a storage area, perhaps for vehicles, or even an area of stables—the apparent absence of any gravel surface in the room suggesting that the latter may be the more likely interpretation. Alternatively, it is possible that if the chamber had been roofed over then the two projecting walls could have supported an elevated floor of limited extent.

ROOM 20

This room measured 6.86 m (east-west) by 9.9 m (north-south), and its walls were constructed of ragstone with courses of bonding tiles. The surviving top of the north retaining wall lay at about 4.57 m above O.D., while its bottom lay at about 3 m above O.D. and rested on a foundation of oak piles. The floor of the room lay at about 3 m above O.D. and where it was observed in the north-east corner of the room it comprised soft gravelly mortar 0.152 m thick. At the base of the east wall traces of a 0.076 m wide quarter-round moulding were observed.

This room, judging from its shape, size and the presence of the moulding, would seem to have been a single roofed chamber, but its proximity to Room 19 and its being separated from Room 21 by a thick wall indicates that its function was unlikely to have been as part of the living quarters of the palace, and that it was perhaps a storage or workshop area.

WALL BETWEEN ROOMS 20 and 21:

A surprisingly massive wall, 1.68 m thick, was found lying between Rooms 20 and 21. It was constructed of ragstone with courses of bonding tiles, on a foundation of oak piles. A length of 15.24 m of this north-south wall was observed in 1840-41 when the sewer was built under Little Bush Lane and at its north end it was met by an east-west wall—the retaining wall.³⁵ The position of this north-south wall can now be accurately located under Little Bush Lane instead of under the south end of Bush Lane—as was suggested in the Royal Commission Report³⁶—for, apart from the re-discovery of a considerable length of the Roman wall, it is now certain that the south end of the nineteenth century Bush Lane sewer lay only under Little Bush Lane.

ROOM 21

This long narrow room, which measured about 1.75 m wide by 8.38 m long, was poorly recorded, and no floor could be found. It is possible that it was a passage linking Rooms 22 and 23, or it may have contained a staircase leading up to the garden-court terrace to the north.

ROOM 22

This room was incompletely excavated and apparently measured 4.57 m (north-south) by 3.2 m (east-west). Its west wall seemed to expand at its north end, possibly to form a buttress, perhaps to support the north retaining wall, or possibly to form the masonry base of a staircase leading from the garden-court terrace. No floor belonging to this primary phase of occupation could be found.

ROOM 23

This small room measured 3.2 m (east-west) by 2.44 m (north-south), and it had a pink concrete floor lying at about 2.85 m above O.D.

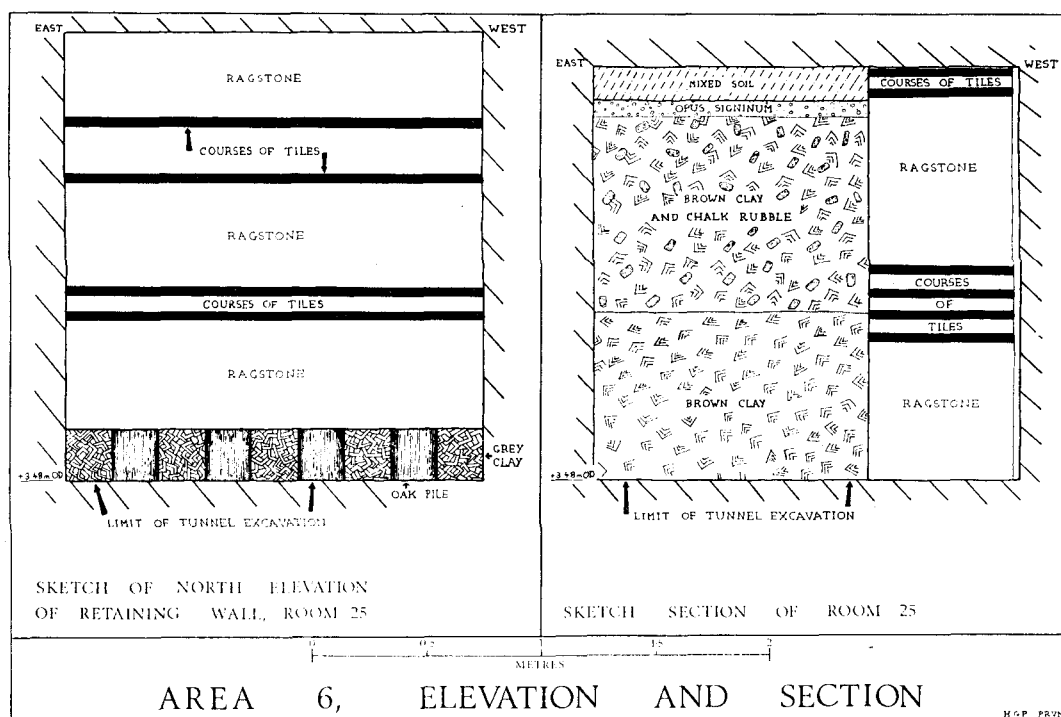


Fig. 22 Roman Palace. Area 6. North face of the retaining wall (1), and a sketch section across wall (3) in the sewer tunnel (see Fig. 23)

ROOM 24

The south end of this room was not excavated and may have been apsidal in form as was apparently the case after its later rebuilding. Room 24 measured 3.2 m wide (east-west) by more than 2.44 m long, and apparently had a pink concrete floor at 2.85 m above O.D.

ROOM 25

This seems to have been an L-shaped room measuring 4.57 m long (north-south), and 2.75 m and 4.42 m wide, with a brown mortar floor which, in the centre of the room, roughly lay at about 3.2 m above O.D. The retaining wall at the north end of this room was very briefly recorded in sketch form in the face of a tunnel dug for a new sewer (Figs. 22 and 23), and was found to be built on a foundation of oak piles sunk into a grey clay. The wall was built of ragstone set in brown mortar and contained in the exposed section two

double courses of red bonding tiles. A little further south in the sewer tunnel another section was revealed which included a cross-section of the west wall of Room 25; also some of the deposits on the west side of the room. Unfortunately, this section seems not to have quite reached the original concrete floor of the room, but it did show that near the base of the west wall of the room there were four courses of bonding tiles instead of the two courses which occurred in the east-west retaining wall, and that the west wall of Room 25 had been rendered in pink mortar.

ROOM 26

This room measured about 4.57 m (north-south) by 2.75 m, and had a floor of buff mortar at about 2.67 m above O.D. When found it contained a hypocaust but it was difficult to judge whether or not this was an original feature of the room. However, there was clear evidence of extensive modifications at a later Roman date, in which the hypocaust was a significant feature, and it seems most likely that the hypocaust belongs to that later Roman period.

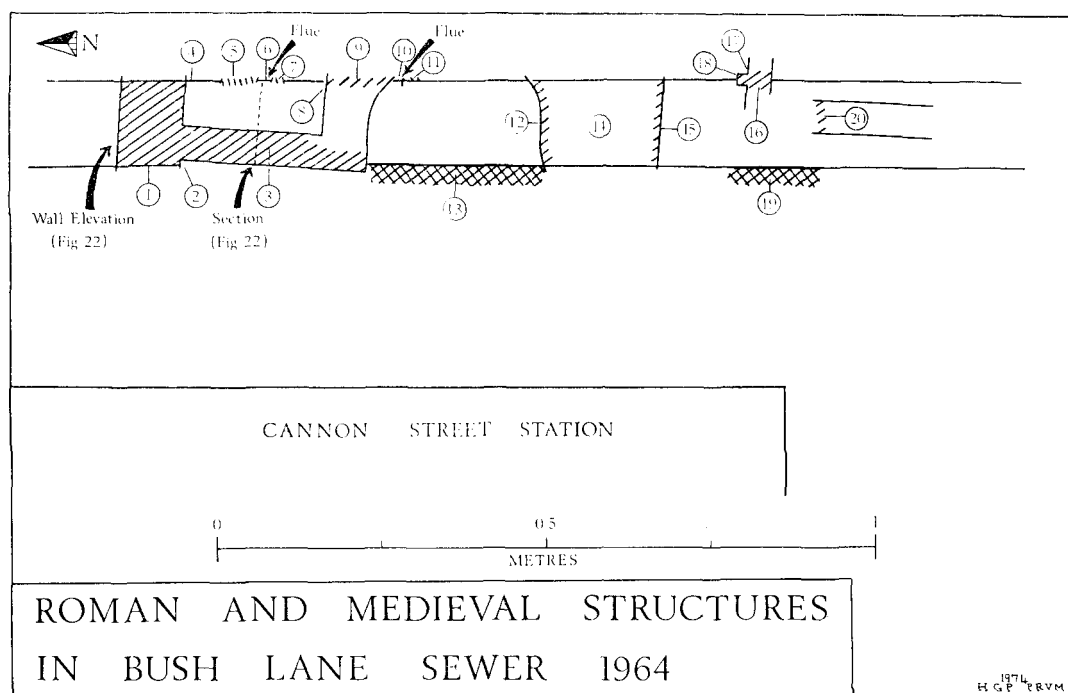


Fig. 23 Roman Palace. Area 6. Detail of Roman and medieval structures found in the Bush Lane sewer (see Fig. 21). The numbered features are:

1. Roman retaining wall (see Fig. 22, left) standing on timber piles. Built of ragstone and brown mortar, with two double courses of bonding tiles.
2. Bonded joint between the two Roman walls.
3. Roman wall of ragstone, brown cement, with double course of bonding tiles at top, and with many courses of tiles near the bottom.
4. Possible traces of mortar floor beside Roman wall.
5. Side wall of flue or drain built of tiles set in pink mortar.
6. Tiled bottom of drain or flue.
7. South side of drain or flue, including a box flue tile lying on its side in mortar.
8. Pink mortar rendering to the Roman wall face.
9. Roman wall of ragstone and tiles set in brown mortar.
10. Flue, 0.15 m wide, containing red burnt ash.
11. South wall flue built of tiles and mortar.
12. Roman wall of ragstone and buff-coloured mortar containing three double courses of bonding tiles. Pink mortar rendering to the wall.
13. Medieval foundation of chalk set in brown mortar.
14. Area not observed; workmen report digging through a Roman tiled drain or flue, aligned east-west.
15. Roman wall of ragstone and buff mortar, containing triple courses of bonding tiles.
16. Roman wall of rubble and buff mortar.
17. Pink mortar rendering to the Roman wall.
18. *Pila* of five superimposed tiles.
19. Medieval foundation of chalk set in brown mortar.
20. Roman wall of ragstone and buff mortar.



Plate 1 Roman Palace. Flavian barrel forming the bottom of Well 2.



Plate 2 Roman Palace. Room 14 and late Roman hearth. Scale of feet;
view to north.



Plate 3 Roman Palace. Junction of north wall and bottom of great pool (Feature 46).
Scale of 6 inches



Plate 4 Roman Palace. Patterned mosaic with guilloche border, seen in Room 67
(see Fig. 44). Scale of inches

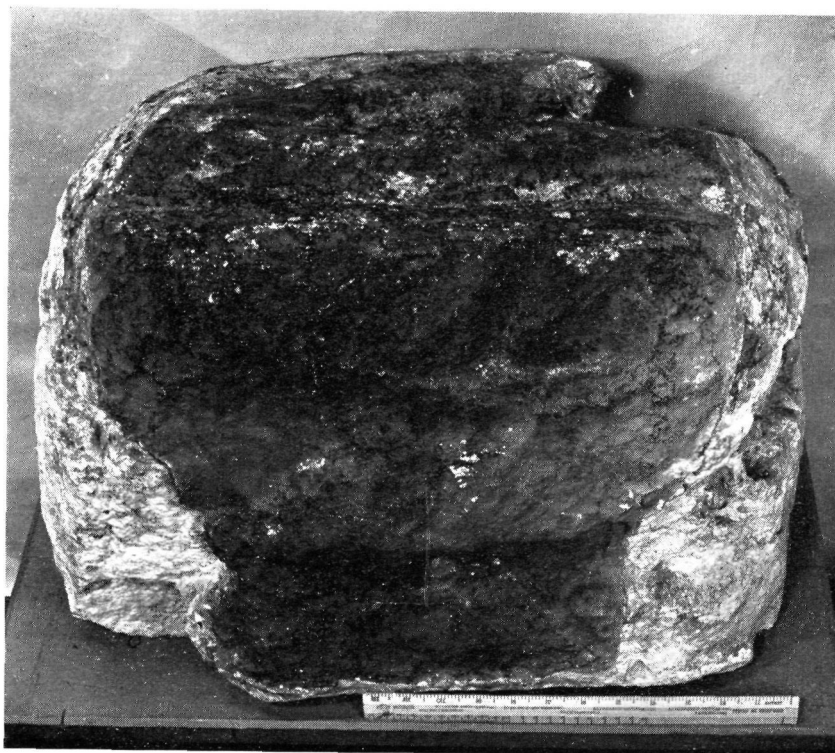


Plate 5 Roman Palace. The top of London Stone. Scale of 12 inches



Plate 6 Roman Palace. Stamped impressions on luting for gold refining
(No. 331; p. 101) (*T. J. Hurst*)



Plate 7 Roman Palace. Stamped impressions on luting for gold refining (No. 332, above; No. 331, below; p. 101) (*T. J. Hurst*).

The west side of this room almost coincided with the western edge of the excavated area and consequently it was difficult trying to establish the exact form of wall there. At the south-west corner, however, there seems to have been a short passage 0.91 m wide.

ROOM 27

Enough of the north end of this room was discovered to show that it was about 2.74 m (east–west), though its length and floor level are unknown.

ROOM 28

This room mostly lay beyond the limit of modern building operations, and thus it is not possible to be sure of its form. Nevertheless, a hole dug to construct a modern foundation against the wall of Cannon Street Station revealed no walls in the northern part of this room, and it seems unlikely that there were any cross-walls running east–west lying north of Feature 29. Indeed, Room 28 seems to have been a chamber of larger than usual size in this part of the south wing. On its east side was what seemed to be an apsidal recess 3 m wide (north–south) and 2 m deep which was coated with pink cement, with curving walls. Although it is clear that both north and south sides of the recess were curved there is some difficulty in being certain of the exact shape of the recess, as the curve of the wall does not appear to have been regular. No clear evidence of a floor was found in this room, but fortunately much survives unexcavated and ultimately could be available for proper archaeological investigation.

ROOM 29

The interior of this small chamber, if that is what it should be called, was not observed by an archaeologist. A workman who had dug this portion of the tunnel for the new Bush Lane sewer reported the presence of a Roman tiled drain or flue within a wall here. It is quite possible that “Room 29” was nothing more than a block of masonry helping to support the roof of this building.

ROOM 30

This chamber lay on the very edge of the excavated area and no information is available about its form. The east wall of this room, which was standing at least 1.22 m high, was 0.61 m thick, and was constructed of ragstone and brown cement, contained at least two double courses of bonding tiles 0.255 m apart. It was traced for a short distance southwards in the sewer tunnel excavation in 1964.

ROOM SOUTH OF ROOM 21 (Fig. 21)

The extreme north end of this room was found, and in its north-west corner was a small portion of mortar floor. It is impossible to conjecture the shape of this room as its west wall was apparently curving, probably to form an apsidal south end for Room 24.

AREA 6. RECONSTRUCTION OF PALACE PHASE (Figs. 21, 29)

Rooms 19 and 20 and Rooms 21–31 comprised two groups each judging from their form originally having a distinctly separate function.

The large size of Rooms 19 and 20 suggests that they may have formed some kind of working or storage area associated with the day-to-day maintenance of the palace rather than with its functional events. Indeed, that the projecting walls of Room 19 may have supported some kind of lean-to roof in an otherwise open yard may even indicate the presence of stables, though significantly no gravel floor surface was found in the room. This room evidently gave access on its east side to an area where there lay an open main drainage channel which flowed from the garden-court terrace of the palace south to the river, this, too, suggesting that Rooms 19 and 20 were part of an unprepossessing palace maintenance area.

Rooms 21–31 clearly had a separate function, and were separated from Rooms 19 and 20 by a wall 1.68 m thick. Although the great thickness of this wall could have been due to its supporting an upper floor, particularly over Rooms 21–31, this is unlikely to have been the reason for its great size, as there were no other thick walls in the area. Indeed, it was apparently unnecessarily thick to support the building; this is indicated by its being even far wider than the retaining wall of the south wing. It seems most likely, therefore, that the massive nature of the wall may have been due to some purpose such as providing a degree of security between the “official quarters” (Rooms 21–31) and the “maintenance area” (Rooms 19–20).

The function of the “official quarters” is uncertain, though their plan suggests that they may have been residential. None appears to have been heated at this early stage of palace construction, though obvious traces of heating could have been removed during later rebuilding. Similarly, no clear trace of any painted plaster was found adhering to the walls but instead a rendering of pink mortar—though this, too, could have been

a later addition. The purpose of Rooms 21–31 is not clear, though the apparent buttress in Room 22 and the long narrow Chamber 21 may have contained staircases giving access to the upper garden-court terrace. Of particular importance was Room 26, a chamber apparently of larger size than the rest and containing on its east side an apsidal recess. Surely here is a major room, perhaps *the* major room, of the south wing, around which the smaller rooms were arranged, for significantly it lay on the main north–south axis line of the palace passing southwards through the centre of the great hall (Room 42) and the large pool (46).

It is fortunate that parts of the area of Rooms 21–31 survive beneath the new office building occupying the site, and it is extremely desirable that in the future a most careful archaeological excavation is conducted here in an attempt to clarify the many uncertainties still associated with this wing, chief amongst them being the need to define more closely the official nature and function of this group of rooms. That the rooms had some pretensions is indicated by the discovery in Little Bush Lane in 1846 of a Roman column base and a massive east–west wall, hinting at a degree of ornamentation not noted in the recent rebuilding excavations,³⁷ but which careful archaeological excavation may reveal in the future.

AREA 6. MODIFICATION TO THE PALACE STRUCTURE (Fig. 24)

At some stage Rooms 22–26 were extensively modified, the construction taking the form of walls of brick set in pink mortar and of floors of *opus signinum* at a higher level than the earlier floors. It was extremely difficult to record and interpret the evidence for the modifications, and the conclusion given here is not necessarily absolutely accurate—but is the best that could be made from observing the excavations made by the contractors. Fortunately, however, sufficient of the modification phase survives for it to be possible, at some future date, to re-excavate the area under archaeological conditions and thereby to check the conclusions given here.

Essentially the modifications seem to have taken the form of changing five rooms of the earlier phase into three rooms, and of inserting hypocausts into some of the chambers. It seems that the retaining wall and the thick north–south wall which divided Room 20 from Room 21 remained.

ROOM a

This had an irregular shape and probably an apsidal south end. Its floor was of *opus signinum*, about 0.3 m thick, on the surface of which had been set large slabs of green micaceous schist (E.R. 1027). The surface of the floor lay at about 3.75 m above O.D., and its level gently sloped down to the south.

ROOM b

This was a rebuilt form of Room 26 (Fig. 21), the original east, west and south walls having been retained. The north wall had been rebuilt using ragstone rubble set in yellow concrete. A hypocaust had been built in this room, the red brick *pilae* having been laid on the earlier mortar floor. Part of the west wall had been blocked with red bricks set in pink concrete. The source of the heat is unknown, though it was probably from the west or south, and may have entered the room from the south-west corner. The *pilae* stood up to 0.61 m in height, though the floor that they originally supported had been destroyed. As the surface on which the *pilae* stood lay at about 2.67 m above O.D., it is reasonable to suggest that the surface of the missing floor of this chamber lay at about 3.5 m above O.D.

ROOM c

Only the southern part of this small and apparently triangular room was excavated and, fortunately, its northern part still survives beneath the modern office building; its east and west walls were built of tiles set in pink mortar, and its floor was of *opus signinum* 0.076 m thick, the surface of which lay at about 4.42 m above O.D. Although no *pilae* were seen in the exposed section, it was evidently heated by a hypocaust since it lay 0.76 m above a structurally contemporary lower floor of *opus signinum*. This in its turn overlay a dump of clay deposited on the first phase of brown mortar floor, the surface of which lay at 3.2 m above O.D.

The source of the heat for this chamber is indicated by the presence of a flue, with sides and a floor of tiles, on the west side of the west wall of the room (Fig. 22), though it is not clear where the stoke-hole lay.

ROOM d

No clear evidence of rebuilding was found in this room, except against the apse wall where a flue 0.30 m wide and with bricks forming its bottom was seen in section. Significantly the flue contained a quantity of red burnt ash indicating its close proximity to the furnace, and it is possible that Room “d” itself had become the furnace area for the new heated quarters.

AREA 6. RECONSTRUCTION OF THE MODIFICATIONS

The curious pattern formed by the rebuilt rooms is probably largely due to their having been inserted into a pre-existing building, and therefore they need not be considered as unusual from this point of view. Nevertheless, Room "a" has one characteristic which sets it apart from all other known Roman structures in London, and this is its floor of micaceous schist slabs set in *opus signinum*. This greenish-coloured floor must have contrasted greatly with the warm pink colouring of the walls of the room to give a pleasing and unusual effect. The significance of this unusual flooring is impossible to determine on the present evidence, and clearly much more excavation is required. It is remotely possible, for example, that the three rooms formed a small bath suite, Room "a" being the *frigidarium*, Room "b" the *tepidarium*, and Room "c" the *caldarium*.

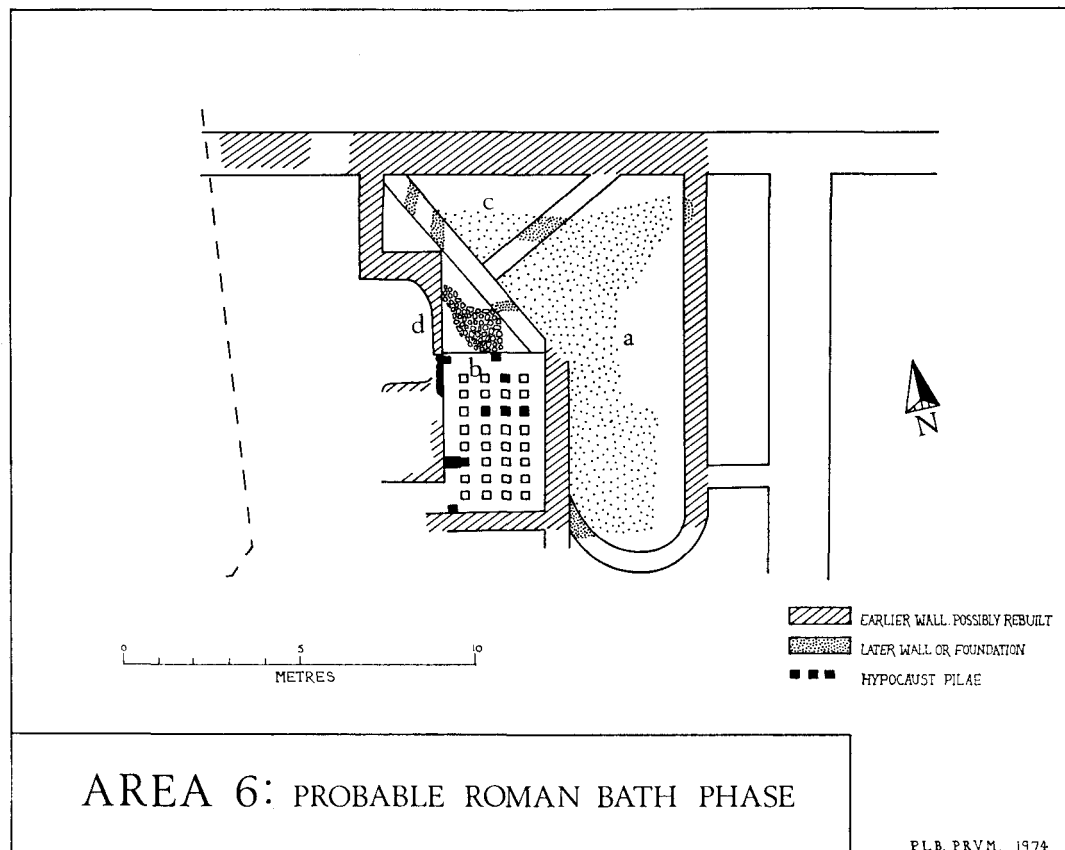


Fig. 24 Roman Palace. Area 6. Evidence of rebuilding in the south wing, suggesting that a small bath suite was inserted

AREA 7. THE ROMAN PALACE UNDER CANNON STREET STATION (Fig. 28)

John Price wrote in 1870³⁸ that excavations to construct the foundation of Cannon Street Station in 1868 had revealed that Roman "buildings" of great magnitude must have existed, if we may judge from the strength and solidity of these foundations . . . running nearly in line with Bush Lane (*i.e.* roughly north-south) was an immense external wall (*i.e.* the west wall of the palace), some 200 ft (60.96 m) long, 10 ft (3.05 m) high, and 12 ft (3.66 m) in thickness, formed of ragstone, chalk, and a variety of materials bound together with mortar in the ordinary Roman fashion. At an angle were foundations 8 ft (2.44 m) wide, of flint and rubble supporting smaller walls, some 3 ft (0.91 m) wide, composed principally of bonding tiles 18 in (0.46 m) by 12 in (0.30 m), (*i.e.* two periods of construction are presumably indicated here). These were connected by a series of cross walls 2 ft 6 in thick and built of flat tiles 14 in (0.36 m) by 11 in (0.28 m), also set on rubble footings 4 ft (1.22 m) in width (*i.e.* two periods of construction, also presumably indicated here).

Still nearer Cannon Street were the remains of an apartment 50 ft (15.24 m) by 40 ft (12.19 m) floored with a coarse red concrete; this was connected with a second, which had access to a third but smaller room. A long series of smaller apartments were satisfactorily traced, with floors of coarse *tesserae* of red and yellow brick in cubes about 1 in (0.025 m) square. Some little distance in front of the centre apartment in this series was a square piece of paving comprised of oblong bricks on edge, known as "herring-bone pavement". Adjoining a thick rubble wall was a large portion of a mosaic pavement, comprised of $\frac{1}{2}$ in cubes of black, red, white, and grey *tesserae*, worked into a simple pattern and surrounded by a double border of black and grey stones of a compact nature and from 4 in to 6 in (0.102 m – 0.152 m) square, but varying in thickness. In close proximity to this, human remains were found.

There were evidences of strong timber drains, or waterways, one 5 ft (1.5 m) beneath the foundations of the building, and having a steep incline to the river. This measured 4 ft (1.22 m) across, and was 18 in (0.46 m) deep, the boards forming the sides being 4 in, and those at the bottom 6 in (0.152 m) in thickness. The other channels were of smaller dimensions (i.e. perhaps this was the main drain for the great pool).

Within several of the rooms wall paintings remained, the designs in various colours; some divided by lines and bands into panels, others ornamented by a trellis-pattern, or powdering of fancy-coloured spots; besides a quantity of roofing, hypocaust and building tiles; fragments of pottery, glass, and articles of personal and domestic use. On many of the tiles were the letters PP BR LON, such as have been observed before; others were scored with geometrical figures, or small squares worked with a diamond pattern; pieces of flue and hypocaust tiles abounded, and were ornamented in a variety of ways.

A great many objects were found, amongst which were coins of Agrippa, Claudius, Nero, Vespasian, Titus, Domitian, and Trajan.

The Roman remains were exposed in trenches dug to build the pier foundations of the new station, and it is certain that the intervening areas were left unexcavated. In the trenches Price mentions that: "It was interesting to observe how completely the old walls defied the appliances of modern engineering, the necessary dislodgements being only effected by the aid of gunpowder; in some cases, I believe the veritable *Roman* walls now form foundations for the support of the railway arches".³⁹

INTERPRETATION OF THE ROMAN MASONRY STRUCTURES FOUND BENEATH CANNON STREET STATION

It is naturally difficult to conjecture the location of these Roman walls, though one or two observations can be made concerning the possible significance of the record. Firstly, the enormous external wall of the palace is of monumental proportions and may have been part of the complex of monumental rooms and other structures in the central area of the palace. Indeed, it may be significant that the 60.96 m length of massive wall found on the Station site is about the same as the distance from the south side of the garden-court to the north end of the great hall, Room 42, the area mostly occupied by the monumental structures.

The second point which is of interest is that the two exceptionally large rooms, each measuring 15.24 m by 12.19 m, are likely to have belonged to the range of very large chambers fronting the north side of the garden-court; and the "long series of smaller apartments" may have been part of the series of rooms represented by Rooms 35, 36 and 41, located to the north of the "state rooms".

In view of the extensive area over which these remains covered on the Cannon Street Station site; also the conjectured western limit of the great pool (Feature 46) in the garden-court, it seems probable that the 60.96 m long wall was located in the western half of the station area. And in view of its massive size it seems likely that a considerable part of it will have survived both beneath and between the foundations of the station.

AREA 8 (Figs. 25, 28)

The waterfront area of the Roman palace has not been extensively excavated, except under Cannon Street Station in 1868, the detailed records of which do not survive. Roman waterfront structures have also been recorded in a few small holes and trenches dug beneath and beside Upper Thames Street at various times, and, in spite of this imperfect information, it is possible to draw together some tentative conclusions concerning the location and construction of the Roman waterfront.

FEATURE 49

During 1868 when excavations were being made for the foundations of Cannon Street Station, a considerable length of what was believed to have been the Roman waterfront was found on both sides of Thames Street (Fig. 28). The Roman level was found at a depth of from 6.1 m to 7.62 m, and it was while sinking the shafts which were to receive the piers of the railway arches that numerous Roman piles and transverse beams

were found driven into the clay, and extending right across Thames Street, these forming a complete network of timber. Many of the beams measured as much as 0.46 m square, and all were of great strength and durability. John Price, who at the time published an account of the discovery, concluded that "they doubtless formed the old waterline and Thames embankment fronting the southern portion of Roman London. Such beams were observed on both sides of the street, and many had probably been supports for the Roman buildings which so plentifully existed in the neighbourhood of Bush Lane and Scot's Yard".⁴⁰

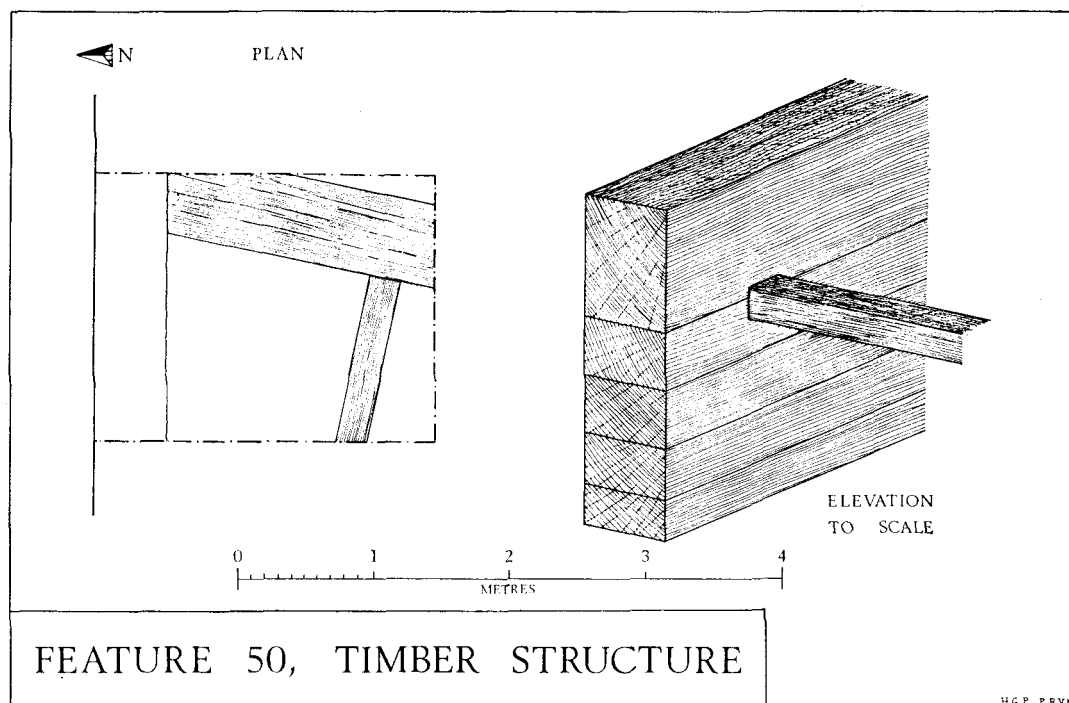


Fig. 25 Roman Palace. Roman timber structure found under Cannon Street Station

FEATURE 50 (Figs. 25 and 28)

Part of a massive Roman timber structure was uncovered in a test hole to examine the foundations of Cannon Street Station in August 1959. Fragments of pottery of the first and second centuries were also found together with a bronze pin (Fig. 45, No. 314), all of which were recovered by workmen. The top of the Roman timber structure lay 4.19 m below the floor of the station vaults. The structure lay on the eastern side of the trial pit, and comprised five enormous timbers, each 0.61 m wide, laid horizontally, one above another. From the west side of the pit a timber beam 0.23 m square projected at a right-angle to the superimposed timbers, and at the level of the junction of the top two beams. There was some suggestion that a vertical pile existed beneath the north end of the horizontal timbers. The timbers rested on grey silty clay.

FEATURE 51

Another small test hole dug against the south side of Upper Thames Street, beneath Cannon Street Station, in September 1959 revealed, at a depth of 7.31 m, a baulk of oak, 0.35 m square, aligned approximately north-south. It was lying in a deposit of grey river silt in which were seen the small shells of freshwater molluscs. Traces of a possible trench in which the oak beam lay were observed cut into the silt in the north face of the trench.⁴¹

FEATURE 52

The Royal Commission Report of 1928 records that, during the digging of a tunnel in 1927 to lay electricity cables along the north side of Upper Thames Street, there were found on either side of the foot of

Suffolk Lane, at its junction with Upper Thames Street, two heavy composite baulks of timber; they were 20 ft (6.1 m) apart and between 15 ft and 20 ft (4.57 m and 6.1 m) below the pavement level. One of the timbers employed was 26 in by at least 24 in (0.66 m by 0.61 m) and the construction was said to slope towards the river. The suggestion that they formed slips appears to be negated by the fact that they were not at the same level.⁴²

FEATURE 53

About 35 ft (10.67 m) east of Feature 52 the tunnel dug for electricity cables in 1927 encountered another timber construction of lighter type than Feature 52. It "consisted of timbers running both across the trench (i.e. north-south) and longitudinally. Projecting into the trench at this point was the drum of a stone column 2 ft (0.61 m) in diameter and roughly fashioned".⁴³

CONCLUSIONS

It would seem that the Roman timber waterfront structures described above may have been similar to the Roman quay box-structures recently found on the Custom House site,⁴⁴ and at New Fresh Wharf. Particularly significant is the use of several superimposed massive oak beams lying horizontally to form the waterfront and to stabilize the soft silty river bank. It is particularly interesting that the Roman structures extended to the south side of Thames Street, for this shows that the actual waterfront was situated there. Observations on the Public Cleansing Depot site⁴⁵ to the west of Cannon Street Station, and recently on the GPO site immediately to the east of the station (see Fig. 29) showed that the river bed in Roman times lay close to the southern frontage of Thames Street, though on neither site were the excavations located sufficiently far north to actually reveal the Roman waterfront.

AREA 9. VARIOUS ROMAN PHASES (Figs. 1, 26)

During the construction of the new Norfolk Suffolk House in 1969 a huge area of Roman building was disclosed which, although probably part of the Roman palace complex, was also probably separate major Roman buildings situated immediately to the east of the main palace building (Fig. 26). Unfortunately, no archaeological excavation could be undertaken in the area, and it was not possible to fully watch the clearance of the central part of the site. As a result, the archaeological record is fragmentary, though probably sufficiently complete for an attempted interpretation of the significance of the structures to be made. The area is most conveniently considered in three divisions, some of which may partly reflect the amount of actual recording of the Roman structures, while others reflect the groupings of the rooms themselves.

FEATURES 57-62

FEATURE 57

This comprised the area immediately north of the north wall of Rooms 58-62, and it clearly formed an elevated Roman hillside terrace, the surface of which lay above 7.92 m above O.D. The terrace surface, and any indications of Roman pits and foundations had all been removed by the deep excavation of modern cellars. Only a small part of the area north of the range of Roman Rooms 58-62 was actually investigated, and it is conjectured that the elevated terrace continued all along the north side of those rooms.

ROOM 58

This was a room measuring about 8.23 m long (north to south), which lay on the south side of a Roman retaining wall. The white mortar floor of the room lay at about 6.7 m above O.D., which is below the surface of the terrace to the north of the room (Feature 57). It was only at the north end of both this room and Room 59 that the line of the retaining wall of Rooms 58-62 was excavated, and here it was found that the wall had been destroyed by a nineteenth century foundation only 0.91 m thick. To the north of this modern foundation there were the undisturbed natural deposits of Feature 57, while to the south there lay both Roman deposits and a mortar floor, showing that a Roman retaining wall must have been situated on the line of the modern retaining wall.

The foundations of the south and east walls of this room were constructed of ragstone and buff mortar containing some re-used broken tiles and hard pieces of pink mortar.

ROOM 59

This room measured 8.23 m long (north-south) by 7.92 m wide, and it was largely only the core of its walls that had survived. The west wall was 1.07 m thick, as was the south wall, but the east wall, at the single point where it was recorded, was only 0.46 m thick. The foundation of the east wall was not constructed of ragstone but of flint and mortar, suggesting that it was of a different, presumably later, date than the west and south walls of the room.

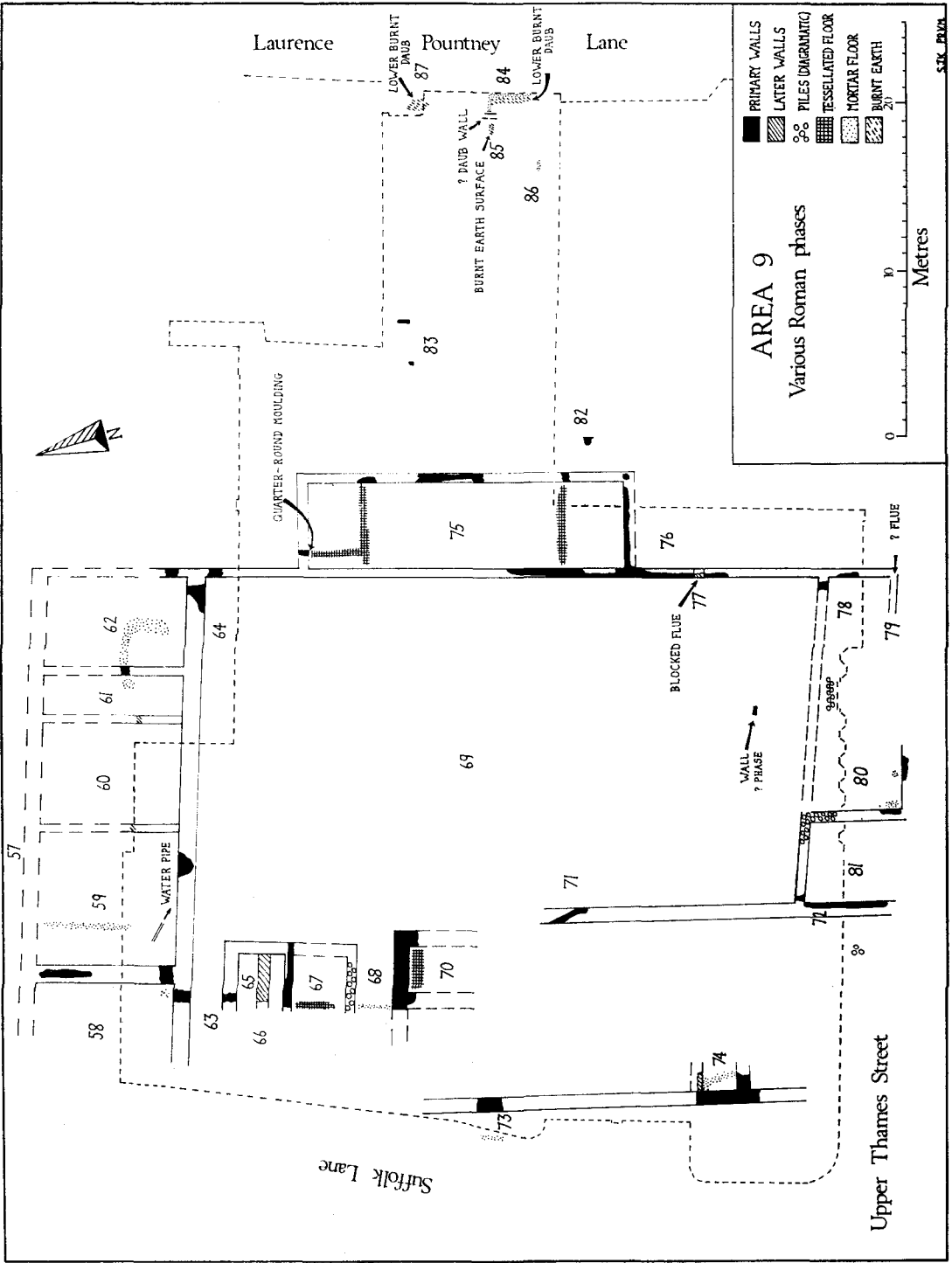


Fig. 26 Roman Palace. Area 9. Roman stone buildings and to the east, beside Laurence Pountney Lane, two phases of wattle and daub building(s)

The floor of the chamber was of buff-coloured mortar between 5 mm and 0.203 m thick. It overlay a dumped deposit of grey gravelly earth containing pieces of Roman building rubble, while the floor was overlaid by a deposit of ash and dark earth, presumably representing the occupation of the room, while above this was a layer of Roman rubble and mortar fragments, perhaps indicating the destruction of the building.

At the south end of the room, and below the level of the mortar floor, was found a short length of circular pottery waterpipe sloping down to the south-east. The pipe was surrounded by sticky yellow clay which was particularly thick around the junction of each length of pipe.

ROOM 60

Assuming that the north wall of Rooms 58–62 was parallel with the known south wall of the rooms, it is clear that Room 60 measured 8.23 m (north–south) by 5.94 m. Its floor was not seen, but its east and west walls had foundations of flint and chalk rubble with some Roman bricks all set in brown mortar. Both foundations were 0.46 m wide and were unlike the typically Roman foundations used in the remainder of this group of rooms. Indeed, there is no certain evidence that the two foundations were of Roman date, though the use of Roman tiles, and the Roman level of the foundations, indicates that they were probably of Roman date. It would seem that both comprised a secondary addition to the primary phase of Roman construction.

ROOM 61

This chamber was 2.36 m wide (east–west), and perhaps 8.23 m long. The flint foundation of its west wall, described under Room 60, was completely different from the east wall of Room 61 which was built of ragstone set in brown mortar. The floor of the room was of buff mortar about 230 mm thick, and its surface lay about 6.7 m above O.D., but it was not possible to determine if this was contemporary with the flint wall foundation.

ROOM 62

This room measured 5.33 m (east–west) and possibly 8.23 m long and its walls were built of ragstone. Its south wall, which was 1.07 m thick, unlike the east and west walls which were about 0.46 m thick, contained traces of courses of bonding tiles. The floor of the room was of *opus signinum* 150 mm thick, which lay at about 6.76 m above O.D. The floor overlay the natural gravel.

ROOM 63

This chamber was seen in section only, and was 2.46 m wide (north–south). The southern wall, 0.91 m thick, was built of ragstone and buff mortar.

ROOM 64

This was an area of unknown size, situated immediately south of Room 62, where a portion of yellow mortar floor was observed lying about 45 cm below the floor level of Room 62, and with its surface at 6.3 m above O.D.

FEATURES 57–62. POSSIBLE SIGNIFICANCE

A deal of uncertainty must exist in the interpretation of this area, because there was absolutely no archaeological control of the method and location of the excavations. Nevertheless, enough has been found for a possible interpretation to be suggested which will make some sense of the archaeological features.

Features 58–62 seem to represent a range of rooms situated immediately south of a Roman retaining wall which once supported a higher terrace. The dam-like effect of the retaining wall on the ground water would seem to have been relieved by at least one underfloor drain, that found beneath Room 59.

It is impossible to be certain of the number of rooms originally occupying this wing, especially as later disturbances have removed traces of walls in the exposed sections. Nevertheless, the indications are that the main foundations of ragstone are of a different and, presumably, earlier phase than the flint foundations. Bearing in mind all of the uncertainties, it may be suggested that during the primary phase Rooms 58–61 comprised one large chamber, flanked at each end by other chambers (Rooms 58 and 62). Room 62 may have been at the end of this range for its south wall was not found continuing eastwards. The west end of Room 58 was not found. At a later stage the large room may have been divided into smaller chambers by walls with flint foundations. No indications of the possible use of the wing were found, though in contrast to other wings of this building there was a marked absence of any hypocausts.

A corridor linking the rooms of this wing might be expected, particularly to the south of the range of the rooms and away from the retaining wall, and this *may* have been the significance of Rooms 63 and 64. It should be pointed out, however, that no sign of a continuation eastwards of the south wall of 63 could be found.

FEATURES 65-74

ROOM 65

This chamber measured 2.75 m from north to south, its north and south walls being built of ragstone with double courses of bonding tiles. The east wall of this room was not found, though its position is suggested by the discovery of an apparent east end to the south wall, and by the apparently complete absence of a continuation of the north and south walls at a point 1.52 m to the east of this point.

At a subsequent date a wall (Feature 66) aligned east-west, was built in the room, its construction being of ragstone, brown mortar, and some fragments of Roman bricks.

ROOM 67

Later Roman rebuilding had destroyed much of this room, though in its earliest phase it appears to have been a chamber measuring about 3.2 m wide (north-south). The north wall had been incorporated in the later Roman rebuilding but, although what is presumed to have been its south wall had been destroyed, its position was indicated by a line of timber piles which had formed its foundation. The east wall could not be located due to the fairly deep modern mechanical digging in that area, though as the east-west walls were not found in the east side of the modern trench, its position seems most probably to be in line with the east wall of Room 65.

The earliest surviving floor of this room was a decorated mosaic pavement at 4.77 m above O.D., which was in part destroyed by the mechanical excavator without any opportunity having been given to record its design. A narrow zone of the mosaic was measured in the edge of the modern excavation to show that originally it had a broad surround of plain red *tesserae*, while the mosaic border itself was a guilloche pattern (Plate 4). Only a very small portion of the interior decoration was seen but this was insufficient to judge the form of the design. The *tesserae*, however, were coloured black, red, white and yellow. Fortunately, part of the mosaic still remains *in situ* and could be excavated in the future.

ROOM 68

In its initial phase this was apparently a small chamber, only 1.52 m wide (north-south) and of unknown length. The identification of this chamber is tentative due to its subsequent later Roman modification. The north wall was completely removed, leaving only the foundation of timber piles; and the south wall which was 1.7 m thick was demolished and rebuilt to only half that thickness.

MODIFICATION OF ROOMS 67 AND 68

At a later date Rooms 67 and 68 were partly rebuilt to form one chamber. It appears that the north wall was retained but the wall dividing the rooms was removed, and the south wall of Room 68 was rebuilt only 0.86 m thick, of ragstone with a double course of bonding tiles. A new floor of *opus signinum* replaced the floors of Rooms 67 and 68. Approximately in the centre of the room there existed an underfloor drain or flue, and there may have been another one at the south end of this chamber.

ROOM 70

The north end of this room was located, its walls being built of ragstone and, probably, courses of bonding tiles. The north wall was 0.84 m thick, and the east wall 0.91 m thick. The thickness of the west wall was not established. The room was 2.85 m wide (east-west), and at its north end was floored with a coarse red tessellated pavement the surface of which lay at 4.00 m above O.D.

FEATURE 71

A portion of Roman ragstone wall 0.90 m thick was found aligned approximately north-south in line with the west wall of Room 72. An area of pink mortar floor was observed immediately west of Wall 71.

FEATURE 72

A length of Roman wall, constructed of ragstone set in pink mortar, was exposed in the side of a modern excavation. It seems to have been a southern continuation of Feature 71, and in a section parallel to its east side but a few feet east of the wall there seemed to be no east-west walls leading eastwards from the north-south wall.

FEATURE 73

A Roman wall was found in a small hole dug to remove obstructions prior to constructing a modern concrete pile. The wall was 0.60 m thick, built of ragstone and yellow mortar, and it had double courses of bonding tiles at intervals of about 0.90 m.

In a section exposed 1.52 m west of the Roman wall a series of archaeological deposits was observed, and these included two yellow mortar floors nearly one metre apart in vertical section. No trace of any gravel metallage was seen in this section.

ROOM 74

Only the south-west corner of this chamber was exposed, and it was more than 0.051 m wide (north-south). The west and south walls were constructed of ragstone and yellow mortar and with double courses of bonding tiles. The floor surface of the room was of *opus signinum* which overlay what seems to have been an earlier floor of bricks set in white mortar. The total thickness of mortar flooring was over 0.46 m and the upper surface of the *opus signinum* floor lay at 3.86 m above O.D.

A later Roman ragstone wall, aligned east-west, was found 2.06 m north of the corner of Room 74. It abutted the west wall of the room, and the base of its foundation lay 20 cm above the *opus signinum* floor, showing that the floor had ceased to be used when the modification was made.

FEATURES 65-74. POSSIBLE SIGNIFICANCE

The fragmentary plan of Features 65-74 indicates the location of a series of rooms arranged north-south possibly as a wing of the Roman building. The wall, Feature 73, was perhaps the west side of the wing, and, the wall, Features 71 and 72, perhaps the east side. It should be mentioned, however, that the area of mortar flooring to the west of Feature 72 suggests that an additional chamber of the building existed at that point immediately adjacent to the east wing of the palace in Area 4. Unlike the structures in Areas 4 and 5, which were located on two or three terraces, the Roman building in the area of Features 65-74 seems to have been gradually stepped down the hillside, the levels of the rooms ranging from 6.7 m above O.D. (Room 58), through levels at 4.78 m above O.D. (Room 67), and 4.00 m (Room 70), to 3.86 m above O.D. (Room 74).

Generally speaking, the rooms in this part of the palace were amongst the most decorative so far found with at least two chambers having tessellated floors—one with a patterned mosaic. Clearly it would be extremely rewarding to undertake further excavation in this area.

FEATURES 75-82

ROOM 75

This appeared to be a large chamber measuring 18.60 m long and 5.00 m wide, though it is possible that that there were cross walls in the unexcavated parts of the rooms, which sub-divided it into smaller chambers. The walls of the room were constructed of ragstone, yellow mortar, and double courses of bonding tiles. The floor was of coarse red *tesserae* set into pink mortar, and its level was at 4.5 m above O.D. At its north end a quarter-round moulding of pink mortar was found at the junction of the floor and wall.

FEATURE 76

The chamber which presumably lay to the south of Room 75 was not excavated, though the presence of hypocaust flues (Features 78 and 80) in the southward continuation of the west wall of Room 76, indicates that a chamber or hypocaust furnaces did exist in the area of Feature 77.

MODIFICATION OF ROOM 75 AND FEATURE 76:

Traces of a later rebuilding in at least part of this area were detected at the south end of Room 75. At this point the south wall of the room had clearly been demolished at a later stage and was overlaid by a floor of *opus signinum*.

FEATURE 77

This was the oval opening of a hypocaust flue exposed in the west wall of Feature 76. It was about 0.56 m wide and, although the wall was built of ragstone, the edge of the flue was built of bricks horizontally laid in mortar. At the bottom of the opening was a deposit of ash, and above that a blocking of ragstone set in mortar. The quality of the facing is such as to suggest that access was from the west side and that the furnace probably lay there.

FEATURE 78

This was the east end of a chamber of unknown dimension, which was adjacent to the long north-south wall. Its north and west walls were primarily built of Kentish ragstone.

FEATURE 79

This structure was probably a hypocaust flue channel with its sides constructed of bricks set in sticky brown clay. The filling of the flue channel was of dark earth, which seemed not to be particularly ashy. The excavation of the area by the modern building contractors was incomplete and messy and it was not possible to determine the relationship of the flue to the ragstone east wall of this chamber.

ROOM 80

Only the south-west corner of this chamber was found. Its walls were built of ragstone and yellow mortar overlying a foundation of oak piles. The floor surface lay at 3.35 m above O.D., and comprised red tiles set in *opus signinum* 0.10 m thick. Beneath this was a layer of buff-coloured Roman mortar supported on oak piles.

ROOM 81

This appears to have been a room which was originally 4.72 m wide (east-west) and more than 5.49 m long (north-south). The face of the west wall was uncovered and comprised ragstone set in pink mortar. Only a small fragment of the north wall survived, this being constructed of ragstone and brown mortar on a foundation of oak piles which were traced as far as the north-east corner of the room. Much of the line of the east wall was indicated by timber piles, but at the south end a small piece of the ragstone wall above had survived.

FEATURES 75-81. POSSIBLE SIGNIFICANCE

Clearly the plan of Features 75-81 is far from complete and it is difficult to interpret. Nevertheless, it seems that as no east-west walls were found extending west of the north-south wall forming the west side of Rooms 75 and 76, this probably indicates that Features 75-77 formed a wing of the Roman building, perhaps on the east side of a courtyard or garden.

Features 78-81 probably formed a south wing, at about 3.00 m above O.D., though the plan is incomplete, and a group of timber piles found in the area between Features 78 and 80, presumably forming a wall foundation, does not fit into the suggested plan as reconstructed in Fig. 26.

FEATURES 82-87

A very limited amount of excavation occurred in the area east of Features 75 and 76 where it seems that the east side of the large Roman stone building was situated. Essentially, the discovered features fall into two categories: those close to the Roman stone building (Features 82 and 83) being of mortared brickwork, and those further east (Features 84-89) being parts of wattle and daub buildings.

FEATURES 82-83

FEATURE 82

A small portion of a Roman brick wall, the bricks set in pink mortar, and the east face of the wall rendered in pink mortar. Between Feature 82 and the east wall of Room 75 a shallow excavation revealed no trace of any flooring, but instead an area of black silty soil.

FEATURE 83

Two small portions of the core of a Roman brick wall or walls, the bricks having been set in pink mortar.

FEATURES 84-87

In this area portions of the floor of a wattle and daub building were uncovered, and were covered by red burnt clay resulting from the building having been destroyed by fire. In places the floors overlay a lower deposit of burnt daub indicating the earlier presence of a wattle and daub building on the site.

FEATURE 84

A room of the later wattle and daub Roman building with a floor of *opus signinum*. The floor surface was burnt, and was overlaid by burnt daub and painted wall plaster. The western edge of the floor was located, thus indicating the probable location of the east wall of this room. A lower deposit of burnt daub lay beneath the *opus signinum* floor.

FEATURE 85

A scorched surface of earth, perhaps outside the Roman wattle and daub building. To the west of the burnt earth surface was seen a deposit of burnt daub, but it was uncertain as to whether or not it was earlier than the wattle and daub building with the *opus signinum* floor.

FEATURE 86

A small portion of white mortar floor was found at about the same level as the *opus signinum* floor (Feature 84). It was overlaid by burnt daub, and so presumably belonged to the wattle and daub building.

FEATURE 87

A deposit of the earlier burnt daub was uncovered at this point, indicating the extent of the earlier wattle and daub building.

FEATURES 82-87. SIGNIFICANCE

The two walls of tiles and pink mortar (Features 82-83) are of unusual construction in the Roman palace complex, and it is possible that they belonged to an adjacent Roman building. Very little rebuilding excavation occurred here, however, and the entire area is largely undisturbed by modern excavation.

The wattle and daub buildings further east (Features 84-87) presumably lay beyond the palace complex, though no dating evidence was recovered and it is not necessarily certain that the building is contemporary with the palace building complex. The two fire levels, however, may indicate a long period of occupation.

It is presumed that a Roman road bounded the east side of the palace complex, but none was found as the excavations in the area of Features 82-87 were not deep enough.

DATING EVIDENCE FOR PALACE PHASE

The limited quantity of evidence to date the construction and occupation of the palace is unsatisfactory, and future investigations in the palace region must have as a high priority the recovery of much more dating evidence. Nevertheless, collectively, enough has been found to point consistently to a *Flavian* date for its construction, and possibly show that the palace continued in use on into the second and third centuries A.D. A description of the dating evidence is given below for each area:

AREA 1

Dating evidence was very limited indeed. The excavations on the site of Bush Lane House indicated that the masonry structures could not be earlier than the Neronian period,⁴⁶ while on the Dyers Arms site two Flavian groups recovered from Pit 6 (E.R. 1117, 1160), (Fig. 33, Nos. 1-11; Fig. 33, Nos. 12-22), and from a deposit through which the pit had been dug in the area of Feature 38 (E.R. 1162) (Fig. 34, Nos. 23-47) were probably earlier than the masonry construction of the palace, because the layer seems to have been located below the floor level of the palace and because it is unlikely that a pit would have been dug inside the palace chambers.

AREA 2

Very little dating evidence of any kind was recovered from the area of the "state rooms" of the palace. Not only was the area considerably disturbed by later intrusions, and could only be examined during the building operations, but also the "state rooms" had been built on a terrace which, when dug into the hillside, had removed almost all trace of earlier occupation.

Material pre-dating the "state rooms" was only recovered from beneath the floor of the great hall, Room 42. This came from a rubbish pit (Pit 5, Fig. 4) (E.R. 681) (Fig. 35, Nos. 49-50) which had been dug into the gravel underlying the great hall, the pit being both cut by the foundation of the south wall of the hall and overlaid by its cement floor. The pit contained a filling of brown-grey mud-like soil in which were recovered a small number of sherds, all of Flavian date. Also, nearer the middle of the room, one coarse ware sherd (E.R. 680) (not illustrated) was found in a layer of clay 0.10 m thick which lay between the underside of the cement floor of the hall and, at that point, the natural clay below. Although not easily dateable the fabric of the sherd indicates that it would not be out of the place in a first century context.

In conclusion, therefore, the very limited evidence indicates that the "state rooms" are not earlier than the Flavian period.

A bronze object (E.R. 725) (not illustrated) was also discovered in clayey deposits, perhaps dumped layers or a pit fill, below the floor of Room 42.

AREA 3

The dating evidence for the construction of the garden-court is extremely limited, and merely comprises a few sherds found in the gravel and clay dumps below the cement floor of the garden-court. None of these need be later than the Flavian period.

E.R. 689: A single sherd from a layer of clay below the concrete floor of the garden-court. Dated late first century A.D. (not illustrated).

E.R. 691/6: A rim sherd of South Gaulish samian ware of Form 18, from a bed of gravel about 5 ft below the concrete floor of the garden-court. Dated to A.D. 60-80 (not illustrated).

E.R. 695/11: A piece of first century pottery was found in an orange gravel dump underlying the small pool (45) (not illustrated).

AREA 4

The date of the construction of the Area 4 palace wing is not determined with absolute certainty, though there is some good Flavian *terminus post quem* dating. Essentially, however, the evidence is derived from two sources: deposits pre-dating the construction of the palace wing, and deposits contemporary with the construction of the wing.

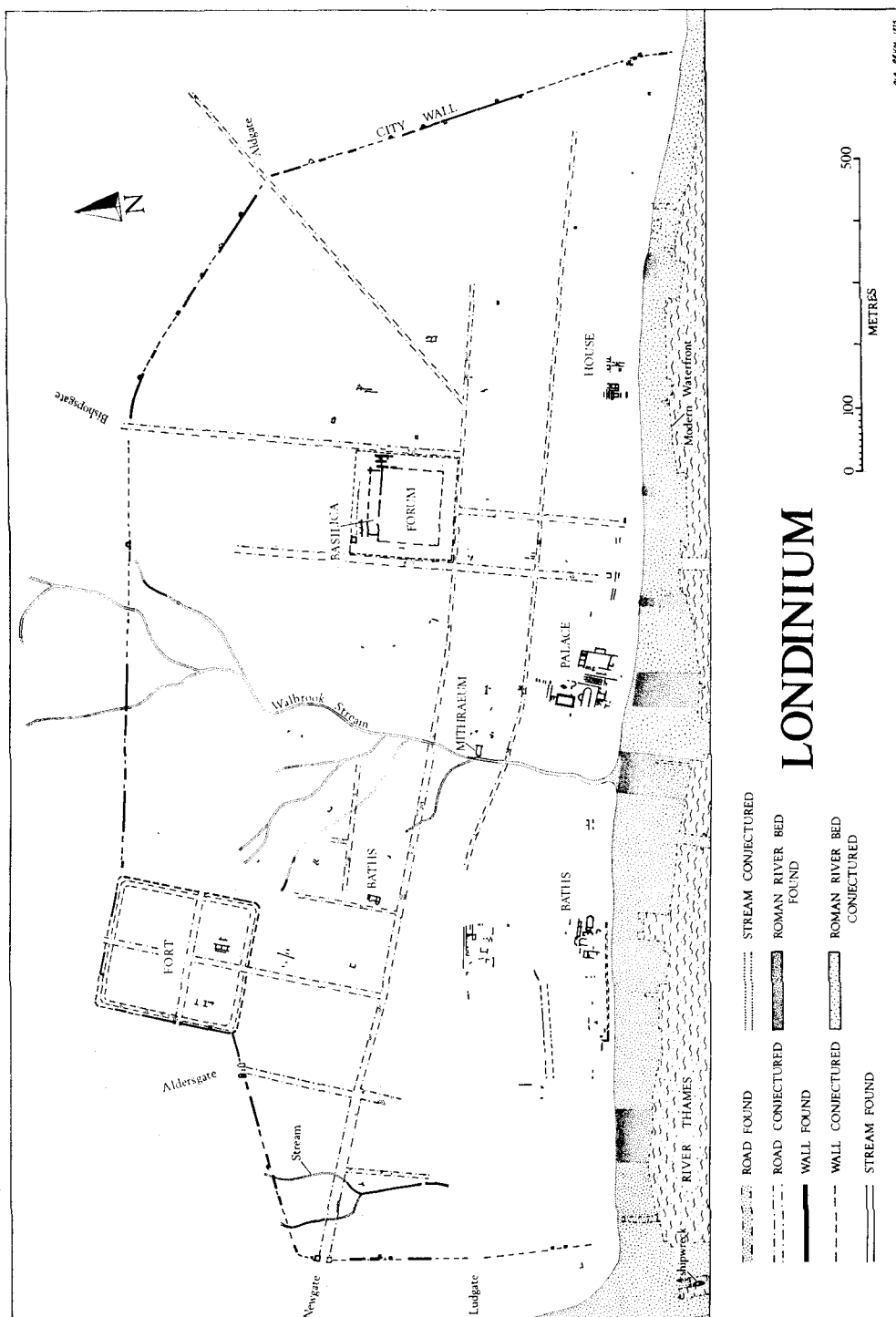


Fig. 27 Roman Palace. Map of Londinium showing the location of the palace in relation to other Roman public buildings and streets

Deposits definitely pre-dating the construction of the wing are those pits whose contents were cut through by the foundations of the wing. These are Pits 1 (E.R. 964, 1020) (Fig. 35, Nos. 53, 62-74; Fig. 42, Nos. 281-86), 2 (E.R. 962) (Fig. 35, Nos. 59-61), 3 (E.R. 965) (not illustrated), and Pit 4 (E.R. 957) (not illustrated). Each of these pits is of Flavian date. In addition, deposits were found in Rooms of the palace through which the Roman walls had been dug and these, too, contained Flavian pottery (E.R. 1022) (Fig. 36, Nos. 75-84). Moreover to this, there are the two wood-lined wells situated within Rooms 1 and 2, in areas which are hardly likely to have been dug after the construction of the palace, and therefore we may assume that they, too, pre-date the construction of the palace. These are: Well 1 (E.R. 1018) (Fig. 35, No. 151), and Well 2 (E.R. 1032, 1033) (Fig. 35, Nos. 54-58). Also a large dish of samian ware Form 18 was recovered from the dumped gravel and clay underlying the north end of the palace wing (E.R. 1026) (not illustrated).

The date range for these groups is Nero-Flavian with nothing of later Roman date, and the absence of any later Roman pits in the area of the palace wing in Area 4 strongly suggests a Flavian date for its construction.

Confirmation of a Flavian terminal date when the area was sealed beneath the Area 4 wing is derived from a small amount of Flavian pottery discovered in the foundation trenches of the palace wing (E.R. 951, 952, 959) (Fig. 36, No. 88). In addition, a number of sherds were recovered from the greenish earth and ragstone rubble foundation of what was probably an hypocaust flue in Rooms 1 and 2. This group (E.R. 958) (Fig. 36, Nos. 86-88) has been dated to the period A.D. 60-80.

AREA 6 (Fig. 36)

Due to the circumstances in which the south wing was investigated very little dating evidence could be recovered.

The construction and early occupation of the south wing is indicated by the following deposits: pottery (E.R. 1028) (Fig. 36, No. 93) from a rubbish layer immediately beneath the mortar floor of Room 25 has been dated to about A.D. 80-90. Two sherds (E.R. 1029) (not illustrated) of the period A.D. 55-80 were found lying against the east wall of Room 18. A few sherds of the first century (E.R. 1031) (Fig. 36, No. 89) were also found just beneath part of the floor of Room 19, and one of these cannot be earlier than the mid-second century (not illustrated). In view of the great quantity of pottery consistently not later than the Flavian period associated with the construction of the whole building, however, it seems likely that this later sherd may be intrusive, perhaps as a result of a repair to the floor.

AREA 6. DATING EVIDENCE. MODIFICATIONS TO THE PALACE PHASE

The date of the later phase of construction in which Rooms 22-26 were rebuilt is indicated by the discovery of a small *antoninianus* of Gallienus, issued in A.D. 270, which was found in the ash filling the hypocaust of Room "b" (Fig. 24). This coin was presumably lost while the hypocaust was being built and before the upper floor sealed in the *pilae*; and, as the ash and the coin lay beneath the collapsed *pilae* and the demolition debris of the room, it is unlikely that the destruction of the room occurred until long after A.D. 270.

AREA 9. DATING EVIDENCE

No dating evidence was recovered from the Roman structures in this area, except a bronze coin of the third century which was found on the mortar floor surface of Room 59.

DISCUSSION

THE PALACE PHASE (Figs. 28, 29, 30, 31)

At a date, probably in the second half of the Flavian period (*i.e.* between A.D. 80 and 100), a large palatial residence of more than 1.2 hectares (three acres) in extent was built in the region under discussion. In it were reception halls, residential chambers and an ornamental garden built on a monumental scale on an extensively terraced hillside overlooking the broad meandering flow of the Thames. Immediately to the east of the palace, and also on the waterfront, there seems to have existed a smaller but nevertheless extensive residence which may have been directly associated with the palace.

The location of the building within Roman London (Fig. 27) was apparently made with an eye to its close proximity to main communication routes, and to the excellent vistas to be gained of the Thames valley and of the busy port of Roman London. In addition, the palace, and particularly its garden and state rooms, were well placed to catch the full benefit of the summer sun striking the south-facing hill slope.

Although the river and landward frontages of the palace have not been archaeologically excavated because they lie beneath modern roads, the slight indications that we have suggest that they were fairly impressive. The landward entrance presumably lay beside the east–west Roman road which followed the southern edge of the elevated plateau which forms Cornhill. This Roman road, which mostly underlies modern Cannon Street and Eastcheap, has been found on a number of sites adjacent to the modern road.⁴⁷ The Roman road was about 6 m wide and constructed of gravel metalling. In terms of communication this was a particularly significant road for it led eastwards to the northern approach of the Roman London Bridge, probably sited just east of the present bridge.

The imposing nature of the northern part of the palace is suggested by the discovery, after the Great Fire of 1666, of a Roman mosaic in Cannon Street near Bush Lane (see p. 3) and by the discovery on the Dyers Arms and Bush Lane House sites of a range of rooms, probably heated (Rooms 33, 35 and 39), some of which contained traces of mosaic floors. These, however, were set well back from the Roman road and, although the evidence is inconclusive, it is likely that the area north of Room 38 formed an entrance courtyard leading from the street, and that Chamber 38 was the side of a portico or corridor overlooking the court. Whether or not the various walls found underlying Bush Lane (Features 43–47) formed the east wing of an entrance court, or, alternatively, whether they belonged to a stone building pre-dating the palace, is impossible to judge, though the massive wall (Feature 47), because of its large size, is probably part of the palace.

It is possible that London Stone has its origin as part of the monumental entrance to the Roman palace. It was so-called before the Norman invasion, and John Stow, the Elizabethan topographer, described it as “pitched upright, a great stone called London Stone, fixed in the ground very deep . . . that if carts do run against it through negligence the wheels be broken, and the stone itself unshaken”.⁴⁸ After the Great Fire of 1666 Sir Christopher Wren “was of the opinion by reason of the large foundation, it was rather some more considerable monument”.⁴⁹

The Stone, which is now preserved in the south frontage of the Bank of China in Cannon Street, opposite the railway station, was originally located on the south side of Cannon Street (now near the middle of the present street) opposite the south-west corner of St. Swithin’s Church,⁵⁰ into the south wall of which the top of the Stone was set after its decapitation in 1742. During recent rebuilding on the former church site, now occupied by the Bank, the temporary removal of the Stone made it possible for the first time to obtain a detailed record and establish its origin. It was clearly part of a much larger monolith and a sample examined by the Geological Museum has been identified as Clipsham limestone from the Inferior Oolite zone, extending from Dorset to the Wash.⁵¹ The surviving fragment is 0.53 m wide, 0.42 m high and 0.305 m thick, has rounded corners at the top, and has clearly been artificially shaped. The back and front faces of the Stone are fairly flat and featureless, but the top has two grooves running parallel with its longer axis.

The natural subsoil in the area of the original site of London Stone in Cannon Street opposite the site of St. Swithin’s Church, now lies between 2.44 m and 3.05 m below the modern level of Cannon Street and, assuming that the street level in late sixteenth century London, when Stow described the Stone, was lower than at present, it is likely that its base lay in the Roman deposits.

Judging from all the evidence it seems most likely that London Stone has a Roman origin, and perhaps the origin of its veneration and “special” place in London history is due to its

having had a special significance in the Roman city. The recent investigations have highlighted the coincidence not only of the Stone having been situated on the site of a Roman palace, but also, as will be shown, its location on the probably main north-south axis of the palace, and beside one of the main roads of Londinium; and these recent findings are sufficient to strengthen the long-held belief that it is of Roman date.⁵²

There is rather more evidence to suggest that the palace had an impressive waterfront. Records of discoveries during the nineteenth century on the site of Cannon Street Station and, more recently, under Upper Thames Street itself, indicate that there was probably a formal quayside of timber of a type which has been found elsewhere in the city and is characteristic of the Roman waterfront in London.⁵³ Just north of this lay the southern frontage of the palace itself the plan of which has not been recovered. However, excavations in Little Bush Lane in 1846, close to the south end of the palace, revealed the base of a column "of considerable magnitude" and an east-west wall 2.13 m thick, which suggest that a formal colonnade may have formed part of the river frontage.⁵⁴

It has been suggested that the plan of the palace shows that more than one period of construction must be represented.⁵⁵ In one sense this is undoubtedly correct, in that the construction of the building and the various terraces must have been carried out in phases, as is indicated by the straight joint at the junction of the east and south wings between Rooms 15 and 19. Nevertheless, it is clear that the two wings must have been part of a unified plan as they both included retaining walls which were necessary to support the terrace on which the garden-court was built with its various pools and other monuments. Confirming this was the fact that the north-south walls of the east wing had been bonded into the retaining wall forming the south side of Rooms 10 and 11, while the retaining wall which formed the north side of the south wing was also bonded into the north-south walls of that wing.

The plan of the palace shows both lines of symmetry and apparently a marked disregard for symmetry, particularly if the layout of the building is considered in terms of it lying on a flat ground surface. However, it lies on a steep slope, and even this is uneven for it is curving northwards from being parallel to the north bank of the Thames to an alignment which, away from the palace site, eventually lies parallel to the Walbrook stream and at a right-angle to the Thames (Fig. 29). Thus the east-west walls of the palace tend to follow the contours of the slope, while the north-south walls in the east wing and in the adjoining Roman building to the east, tend to lie at a right-angle to the Roman waterfront. In the main part of the palace to the west, however, the north-south walls follow the downward slope which is at a right-angle to the hillside contours. Thus, although the design of the palace may not have been made in Londinium or even in Britain, it seems that the architect has adjusted what was a regular design to fit the uneven physical conditions of the site.

Judging from the plan of the palace there seem to be four fairly certain, and one conjectured, axis lines of symmetry used in the original planning of the building, and the identification of these helps in understanding the effect that the architect was trying to achieve.

Line "A" (Fig. 29) follows the central axis of the great pool (Feature 46) which divides the garden-court into two parts, and if this line is extended across the east wing (Area 4) it will be seen that the pattern of rooms to the north of the line in that wing is completely different from the regular pattern of rooms to the south of the line.

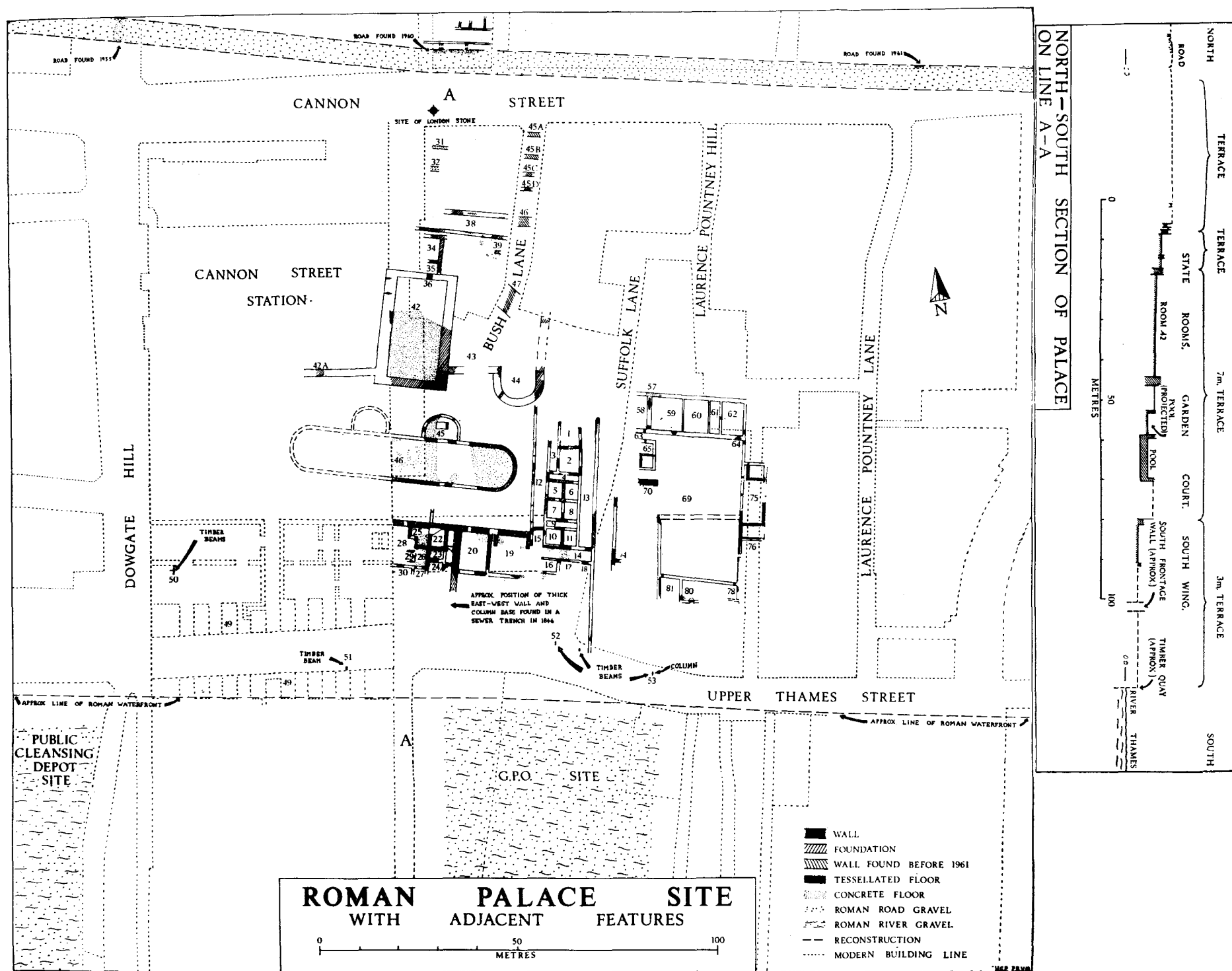


Fig. 28 Roman Palace. General plan of the Roman palace site, and a composite north-south section online A-A, located just east of Cannon Street Station

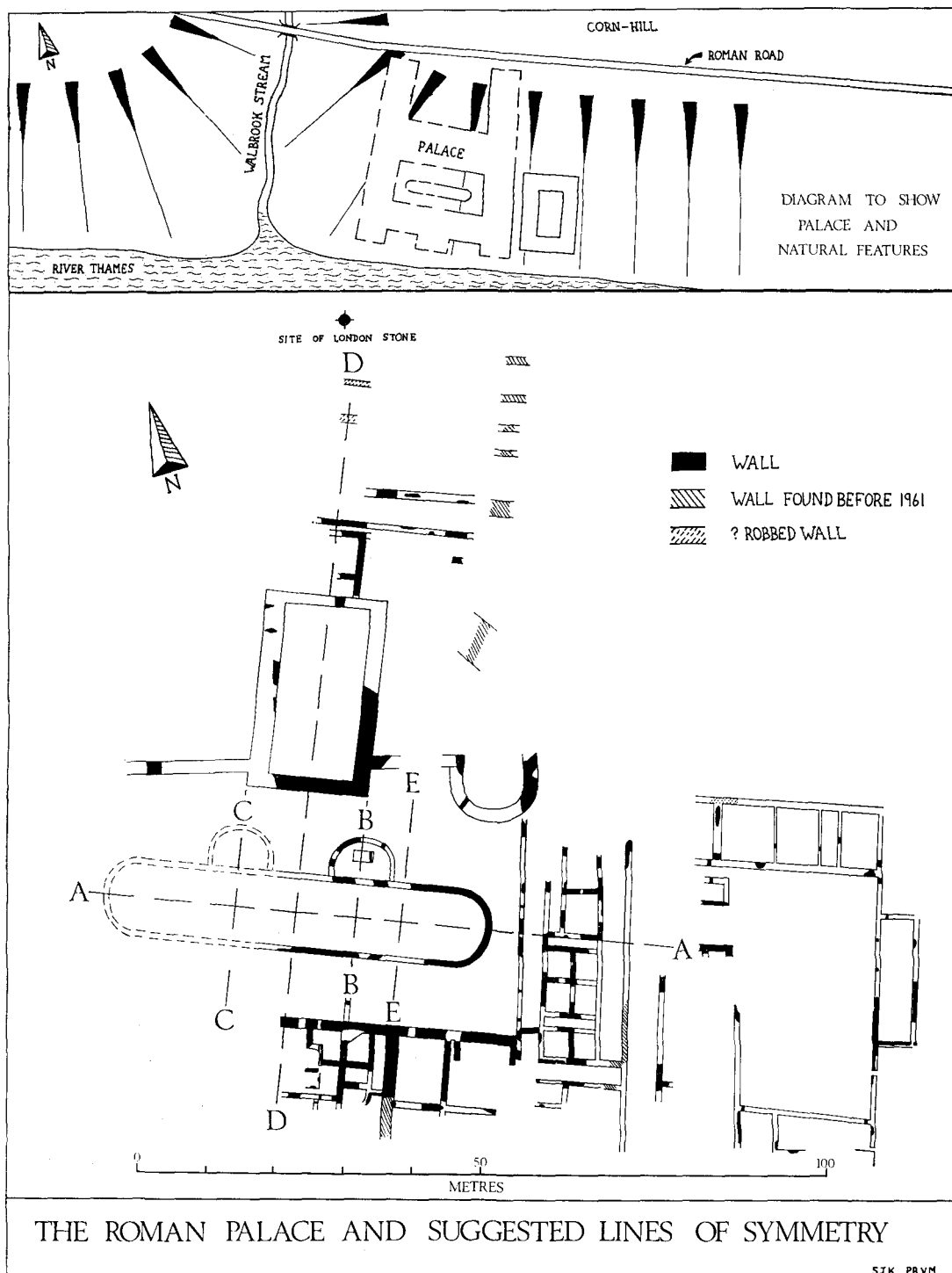


Fig. 29 Roman Palace. Diagram to show the hillside location of the palace, and suggested lines of symmetry

Axis line "B" follows the east wall of the large reception hall (Room 42), and if extended southwards the line passes through the centre of the small pool (Feature 45) and lines up with a major straight north-south wall in the south wing, and also with an extension of this wall up onto the garden-court terrace.

The great hall itself (Room 42) almost certainly held a central east-west position in the palace, for the west wall of the building was evidently found under the western half of Cannon Street Station (see p. 52). In fact, not only did the hall hold a central position but, judging from the dimensions of the largest rooms that were found on the site of Cannon Street Station, the hall was by far the largest chamber in the palace.

It is thus possible to conjecture that, so as to be symmetrical with line "B", there was probably a north-south axial line "C" following the west wall of the great hall and that, based upon this, a second and complementary small pool might have existed on the north side of the great pool to equate with the small pool that has already been discovered. In addition, because the great hall probably held a central position, and the architect presumably planned the state rooms and the garden-court as a unity of design, it seems reasonable to conjecture that the great pool, the main feature of the garden-court, was symmetrically placed in relation to the main reception hall. From this we may estimate the position of the west end of the pool.

Line "D", passing north-south through the centre of and on the alignment of the great hall (Room 42), was probably the main axis of the palace. There is no doubt that this was a significant line, for northwards it lines up almost exactly with London Stone which, as we have seen, is probably a significant feature associated with the palace; while to the south it passes through a large chamber in the south wing, which was probably a principal room with an apsidal recess in its east side.

Yet another axial line, "E", follows the very thick north-south wall separating Rooms 20 and 21 in the south wing for, if this line is extended northwards, it passes exactly through the middle of Feature 43, mid-way between the great hall (Room 42) and the apsidal "state" room (Room 44), where there may have been a large opening of some form leading into the garden-court.

The use of the various rooms of the palace is in some places not difficult to conjecture. The "state rooms" (at least Rooms 42-44) with their distinctive walls of monumental size, were clearly the reception halls and chambers overlooking the garden-court with its pools, and the various fragmentary foundations in the garden itself may have supported decorative features such as statues and fountains. The irregular frontage of the "state rooms" indicates that the garden was probably not surrounded by a stylobate, though only careful excavation on the site of Cannon Street Station can establish for certain that this feature did not exist.

The east wing (Rooms 1-13) appears to have contained some rooms which were probably heated and may have had mosaic floors. Some of these rooms, with their barrack-like layout, were, together with the "state rooms", ideally placed in the palace to capture the full magnificence of the outlook onto the garden-court and its pools, and it seems likely that here there were suites of rooms forming some kind of residential accommodation.

The central part of the south wing (Rooms 21-30) may have formed a residential suite overlooking the river, with the large room containing an apsidal recess on its east side (Room 28) as the main reception area. This range of rooms may have projected closer to the waterfront than the remaining rooms of the south wing (Rooms 19-20) and the purpose of the thick wall separating Rooms 20 and 21 may have been as much for security as for structural support to seal off the working area of the south wing to the east, where it would

seem that perhaps there was some form of storage and even possibly stabling. The southern frontage of this possibly projecting central part of the south wing must have included the 2.13 m thick wall, and the column base "of considerable magnitude" which were found in Little Bush Lane in 1846, these presumably forming part of an impressive entrance façade. Fragmentary discoveries further east (Fig. 28, Feature 52) suggest that the east wing projected south of the general waterfront range, perhaps to form part of a river frontage with three projecting exedra in the form of an E, in which Rooms 21-30 formed the central projection.

INTERNAL DECORATION

Much of the archaeological effort has been placed on recovering the plan of the palace, leaving little time to recover detail concerning its interior decoration. Thus the few details recorded here must be interpreted merely as an indication of the decoration of the palace.

Painted wall plaster was found adhering to the walls of Rooms 14, 19 and 42, and in each case it was just above floor level and had been painted white. In Room 14 there were some thin red lines on the otherwise white-painted north wall of the chamber, and in this case there was also a red painted quarter-round moulding. Elsewhere have been found many loose fragments of plaster painted in red, green, black, yellow, and even a most unusual sky-blue colour. In the late Roman dump in-fill of Room 14 were even small fragments of fresco painting but none was large enough to establish the nature of the designs. None of these fragments can be related to individual rooms, and indeed it cannot be absolutely certain that they are all derived from the palace. Other forms of wall decoration are indicated by a piece of white-painted stucco, and also by small pieces of Purbeck marble, none of which were large enough to show the form of the stone, but it is assumed that they were derived from the walls.

The floors of most of the rooms had been destroyed, but of those that have remained it is clear that buff-coloured mortar floors were common, though several floors of *opus signinum* have been found. Scattered throughout the site have been recovered tesserae often in a variety of colours, indicating that mosaic pavements may well have been common in the palace (e.g. in Rooms 2, 5, 6, 35, 36, 40). In spite of the very limited range of evidence it is clear that the decoration was in keeping with the palatial magnificence of the building.

THE DATE OF THE PALACE:

The period of the construction of the palace is uncertain due to the limited amount of dating evidence. Nevertheless, the consistent discovery of pottery almost everywhere of not later than Flavian date, both in deposits stratigraphically earlier than and contemporary with the construction of the palace, does indicate that it is fairly certain that the palace was built during the Flavian period. The samian ware found in Pit 1 (p. 96) in Area 4, which was cut across by a foundation of the palace, dates from the latter half of the Flavian period and, on this basis, it is unlikely that the Roman palace was constructed before A.D. 80.

OWNERSHIP OF THE PALACE:

The building has been described here as a palace, and this interpretation now requires further explanation. It is based on the assumption that the "state rooms" and adjacent rooms co-existed, in which case they formed part of a complex measuring about 130 m from

north to south, and more than 72 m, but probably about 100 m, from east to west. The only building known in Roman London that is at all comparable in area is the even larger basilica and forum complex, about 152.4 m square.

It is significant that a concentration of bricks stamped P.P.BR.LON or some variant of this has been found associated with the palace. Whatever the meaning of the first P, it is clear that the P.BR.LON or PR.BR., as it sometimes appears, is an abbreviation for *PROVINCIAE BRITANNIAE LONDINII*, and that these tiles were made for official use by some branch of the administration which was concerned with the province as a whole. In other words, they were government bricks made for public buildings, and their presence is a strong indication that the building for which they were used falls into this category. Significantly, none have been found in other towns in Roman Britain, thus indicating that the government department which issued the bricks only operated in Londinium. Although none have been found *in situ* during the recent excavations in London, since stamps on bricks built into walls can seldom be read, it is reasonably certain that they were not derived from any later Roman building on the palace site. They are of fairly early date in the Roman period, as can be judged from the lettering, and is proved by the discovery of a fragmentary stamp of this kind in the primary silt at the bottom of a ditch of the Cripple-gate fort at Guildhall, associated with pottery of the early second century.⁵⁶

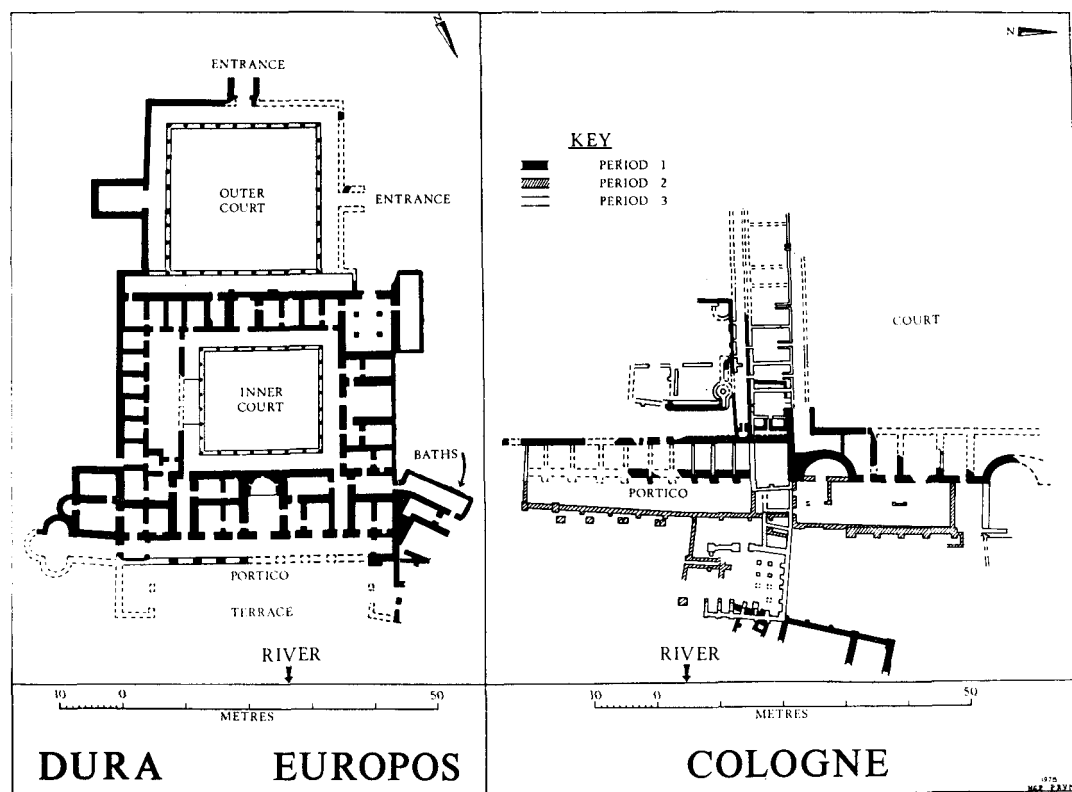


Fig. 30 Roman Palace. Plans of the official Roman palaces at Dura Europos in Syria and Cologne in Germany, showing how the principal residential chambers overlook the rivers

It must, therefore, be accepted that the extensive building underlying Cannon Street Station and Bush Lane was a public building of some kind, as its size alone would suggest, and that it was constructed, like the basilica, forum, bath-houses in Cheapside and Huggin Hill, certain main streets, and the Cripplegate fort, during the period between A.D. 70 and A.D. 125, which was the great age of public construction in Roman London. The discovery of Flavian pottery underlying the building indicates that it was being built some time after the start of the Flavian period, and it would not be surprising if, like the forum at Verulamium, it was during the governorship of Agricola (A.D. 78-85). The completion date of the construction of the basilica and forum may have been a little later, and the building of the Cripplegate fort was even later still (early second century), but all formed part of the great transformation which took place in Londinium primarily between the reigns of Vespasian and Hadrian, and this must reflect the increasing political importance and prestige of the city. There seems little doubt that Londinium, in A.D. 60 merely a great commercial and financial centre had, by the end of the first century, already become the capital of the province.

As such, Londinium must have had an imperial palace or *praetorium*, the residence of the Emperor if he chose to visit the province, and of the *legatus Augusti propraetore* or governor, his representative, in his absence. No other function seems to fit the diverse attributes of the Roman building in Cannon Street, with its considerable architectural pretensions which must have made it an impressive sight in the city, and no other site in London offers an alternative candidate.

The evidence for the provincial administration having its headquarters in Londinium at the end of the first century A.D. has been given convincingly by Ralph Merrifield⁵⁷ and essentially shows that both the *procurator* and the governor had their headquarters there. Although the only certain evidence of the presence of the *procurator* is the tomb of Julius Classicianus,⁵⁸ who held the office after the Boudiccan uprising of A.D. 60, there are further, but less certain, indications of his existence in London. An inscribed writing tablet issued by the *procurator's* administration has been found in the Walbrook stream, and it has been argued that the bricks, from various sites in the city, bearing the P.P.BR.LON stamps (p. 71) may have been issued by the *procurator's* department acting as a kind of ministry of public works in control, as that official was, of the natural resources of the province. Indeed, gold refining activity on the Roman palace site prior to the construction of the palace may also be indicative of procuratorial activity in London during the Flavian period (p. 100), just as Merrifield suggested in connection with an iron punch found in the city and evidently used for the official marking of a soft metal such as gold. Although more certain evidence is required to support the suggestion that the *procurator* had been established in Londinium before A.D. 60,⁵⁹ it is clear that between A.D. 60 and 100 the *procurator* was active there. Additional evidence for the provincial government in Londinium has been identified by Hugh Chapman,⁶⁰ though it is not linked to any particular department of the administration. This evidence comprises three official seal-boxes bearing on their lids the imperial eagle and the portraits of the Emperors Domitian and Vespasian. The seal-box bearing the portrait of Vespasian was found at Aldgate in a deposit of Nero-early Flavian date, while the other two were found in the Walbrook stream on the site of Bucklersbury House, just a short distance from the Roman palace.

While no inscription or reference in classical literature has been found stating that the governor had his *praetorium* in Londinium, there is nevertheless some indirect evidence. A tombstone referring to soldiers with the office of *speculator*⁶¹ is perhaps the most important,

for this office only occurs amongst the immediate staff of the governor.⁶² It has been pointed out⁶³ that Roman inscriptions found in the city describe persons from three of the legions serving in Britain, a circumstance which probably reflects the presence of the governor who drew his staff from all of the legions in the province. Moreover, the existence of the permanent residence of the governor in London would explain why the Cripplegate fort was added to the existing Roman city in the early second century, at a time of peace, stability and prosperity, and when there would be no obvious need for a fort.⁶⁴ Thus it is likely that the fort was the base for the personal corps of troops which the governor would require in a politically and militarily active province such as Britain was at that period. Indeed, the impetus for the construction of the fort could well have been as a prelude to the visit of Hadrian to Britain in A.D. 122, for the discovery of a bronze head of Hadrian in the Thames at London Bridge⁶⁵ indicates that the emperor may have stayed in the city and instituted various public works there, as was his policy in Britain generally. It has been pointed out⁶⁶ that the fort in London was too large to contain the (approximately) one thousand men that would comprise the governor's guard, and that it may have housed legionaries also serving in the capital. On the other hand, since Londinium was a focus of land routes in the province, it is possible that it included barrack space for transient troops travelling to other parts of the province.

THE PALACE, AND PROVINCIAL GOVERNMENT ACTIVITY IN LONDON

The use in London of bricks bearing the P.P.BR.LON stamp made by the provincial government is not surprising, and certainly a marked concentration of them has been found on the palace site over a very long time. What is surprising, however, is that if the scattered find spots of all tile stamps in London are plotted out on a map, the distribution that results (Fig. 31) shows that there are three other concentrations—and that these coincide with the basilica, the Cripplegate fort, and the waterfront region in the south-western part of the city.

The discovery of several PP.BR.LON stamps on tiles during the rebuilding of the site of the old Leadenhall to construct Leadenhall Market in the 1880's was recorded by Mr. Brock, and it is to one of these that perhaps Henry Hodge referred in the annotation to his plan of the Roman basilica when he mentioned that there was a stamped tile in a brick-built pier on the south sleeper wall of the nave of the basilica.⁶⁷ Another stamp was found in 1923–24 in Cornhill just north of St. Michael's Church.⁶⁸

Several stamped tiles have been found in the area of the Cripplegate fort, though the context of only one has been established. This was found in the primary filling of the fort ditch in Aldermanbury in 1965.⁶⁹

The other scatter in the south-western part of the city coincides with an area where there seems to have been a series of important buildings, but the precise context of only one stamp is known for certain. This was an almost complete roof tile found in the Roman baths at Huggin Hill in 1969.⁷⁰ Other monumental buildings are suggested by the massive walls, formal terraces, and the re-use of shaped and sculptured stones in later Roman walls in this area.⁷¹

From this distribution it would seem that the provincial government was not only concerned with the construction of the palace, but also with a more general programme of public building. And it is interesting that wherever the buildings have been dated they fall into the late first–early second century date range of the great period of public building in

London. It is generally agreed that the construction of the basilica and forum in the City began during the Flavian period, thus indicating the period at which Londinium received her municipal charter; but the suggestion that this was a result of the prosperity and general progress towards romanization rather than because the City was elevated to the status of provincial capital⁷² is hard to justify in the light of these latest studies. Judging from scattered traces of occupied Flavian London it is fairly clear that during this period the City had probably doubled in size, and that, at the same time, important public buildings were constructed not just by the City itself, for the stamped tiles in some of them indicate that there was some central provincial government aid. These are surely the effects of Roman government policy in actually creating a capital city, not only by massively enlarging its population, but also by constructing at least some of its administrative buildings on a huge scale in keeping with the new status of Londinium.

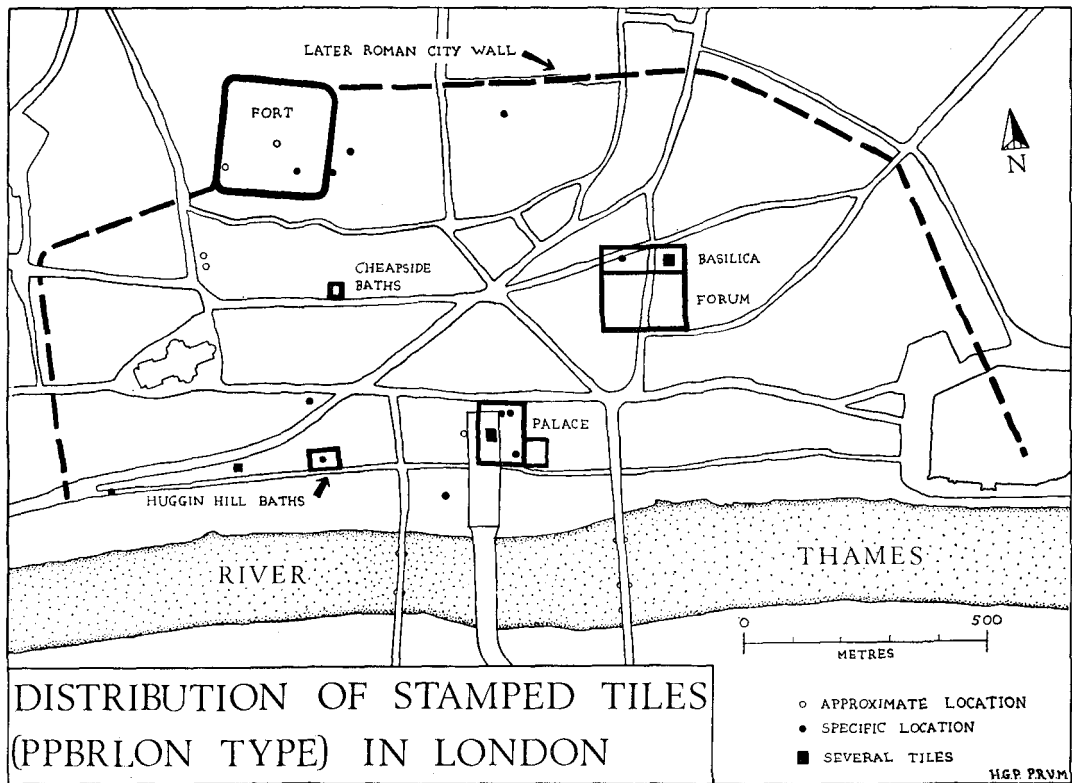


Fig. 31 Roman Palace. Distribution of find spots of tiles in London bearing the PP BR LON stamp or some variant

Against this background the palace is seen to be in keeping with the new status of Londinium, for its hillside location, in the latest style of wealthy Roman residences, was definitely created to impress. Orientated to gain the maximum light, air and scenic view its layout was not strictly in keeping with the more traditional plan of residences in which the principal rooms looked inwards upon an enclosed garden or court. Instead there were two groups of principal rooms in the palace each on a separate terrace, the upper giving a view across and

beyond the roofs of the lower. On the upper level the semi-public state reception rooms with their grandiose proportions enhanced the dignity of the office of provincial governor; while the visitor, on entering the garden-court, would gain an impression of imperial luxury implanted, as it were, in this outer province of the Empire. In the foreground the contrived garden with its long pool, probably holding about 200,000 gallons of spring water, and the smaller pools and ornamental monuments must have contrasted with the superb natural vista of the meandering River Thames, the broad riverside marshes, and the distant Surrey hills. On the lower terrace were probably located the private apartments of the governor himself, the colonnaded river frontage framing an unencumbered view of the Thames with its shipping from many lands, while beyond was an excellent view of the riverside marshes of Southwark, no doubt teeming with wild life.

Although no exact parallels to the London palace are known, its general style of architecture is well known from other Roman palaces. The Flavian palace at Fishbourne⁷³ has elements reflecting both the traditional inward-looking design, and the more up-to-date view outwards towards the sea. But even the inward-looking view was partly reflected in the latest style for, instead of a central court, there was an extensive ornamental garden artificially creating a superb vista.

The style of outward-looking building with a portico frontage is better represented by the *praetorium* of first and second century date which was built on a terraced hillside at Cologne overlooking the Rhine.⁷⁴ Unfortunately the excavations there have mostly been restricted to the waterfront area and it is not possible to make a definite comparison with the imperfectly investigated comparable part of the London palace. Nevertheless, the plan of the Cologne palace (Fig. 30) clearly shows that the terraced outlook was across the Rhine, and that the southern wing beside the river was at least partly fronted by a colonnade or an arcade behind which lay rooms which possibly comprised the residential chambers of the governor. A more complete plan of a governor's palace of somewhat similar design to that at Cologne has been found at Aquincum where the apartments of the governor of Pannonia Inferior had been designed to take advantage of a magnificent view of the River Danube.⁷⁵

An almost complete plan of a building of this type existed at Dura Europos in Syria, where a palace of the early third century A.D. was excavated in 1935-36 (Fig. 30). It was probably occupied by an important Roman military official who was also a civil governor of the Middle Euphrates region.⁷⁶ This, too, was built in an elevated position, and had a magnificent view of the nearby Euphrates and the surrounding desert. The palace had two courts, a public entrance court and a semi-private inner court, and around the latter were arranged domestic and staff chambers as well as some official reception rooms. Of particular importance, however, was the location of the private apartments of the Roman official, for these opened onto a portico terrace overlooking the Euphrates—once again looking outwards to a broad vista of the surrounding countryside. The Dura palace clearly shows the double court arrangement which also seems to have existed in the London palace, a feature which is again in the best tradition of Hellenistic and Roman houses and villas. There is no doubt, therefore, that the palace in London was comparable with the provincial palaces of the Roman world, and in its ornamentation which, in the central garden-court at least, is matched by the imperial palaces such as the villa at Piazza Armerina in Italy.

THE BUILDING IN AREA 9:

Finally the Roman building in Area 9 must be considered. There is little doubt that it was a separate building with its own wings surrounding a terraced garden or court, and its

walls were similarly aligned with those of the neighbouring palace, while the column (p. 54) suggests that it may have had a portico frontage beside the Thames. Because it was a separate building, however, there is doubt as to whether it should be considered as part of the palace complex. The significant area lies between the two buildings where, unfortunately, only one small trench was dug during the recent redevelopment. The space between the two Roman buildings, in Feature 57, is only about 4 m wide and, instead of finding gravel metalling between the two buildings, the single trench revealed mortar floors, indicating that the Area 9 building lay immediately alongside the palace. It is on the basis of this limited evidence that it is suggested that it was part of the palace complex. Perhaps it was the residence of other Roman officials, or an official residence for private use, but these and other problems may be solved only if it is possible to carry out adequate investigations on all sites in the palace area in future.

THE DESTRUCTION OF THE PALACE AND REBUILDING ON ITS SITE

Clear evidence of the destruction of the palace was found during the excavations, and in one place definite traces of subsequent rebuilding. Because it is uncertain that all parts of the palace ceased to be occupied at the same time it is most convenient to describe the fragmentary evidence for the post-palace phases in one place.

AREA 1 (Fig. 6)

Post-Roman disturbances had removed much of the Roman structure and deposits on the site of the Dyers Arms public house, and the only certain evidence for post-palace occupation was a drain, aligned north-south and internally 0.43 m wide, built of tiles mortared together on top of the east wall of Room 34. Clearly for this to have been built the Roman wall must have been demolished, though at what period is unknown as no dating evidence was found.

Beneath Bush Lane House an undated sunken room with ragstone walls (Fig. 6, Room 41) constructed in Roman style, was cut through the site of the earlier palace structures, and it is possible that this chamber contained a hypocaust (p. 18).

Yet another presumably post-palace feature was the white tessellated floor and hypocaust found partly overlying the massive palace period foundation, Wall 47, and extending to the north of it under Bush Lane (p. 20).

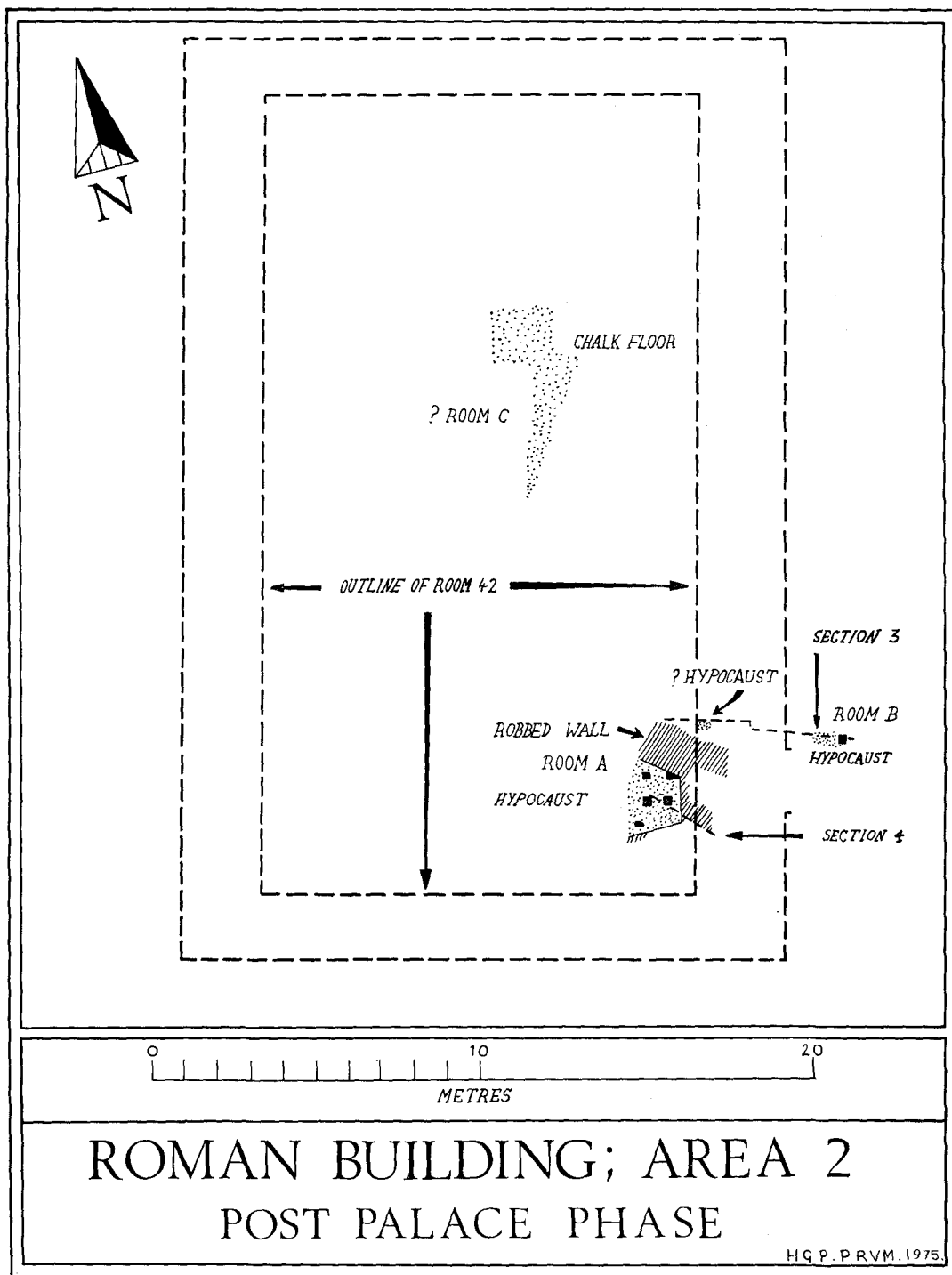
AREA 2: STRUCTURES REPLACING THE ORIGINAL PALACE BUILDING (Figs. 11, 32)

Extensive traces of the demolition of at least part of the Roman "state rooms" and their subsequent rebuilding during the Roman period were found in the area of the great hall, Room 42, and in the area immediately to the east. The sequence of events seems to have been as follows:

1. The dumping of clay and other material inside the "state rooms" presumably to raise the land level to form a new terrace surface.
2. Demolition of the "state rooms" and the removal of the rubble presumably for re-use elsewhere.
3. The robbing of some of the walls of the "state rooms", perhaps to provide some building materials for the next major building on the site.
4. The construction of a later Roman building with hypocausts and chalk floors.
5. The re-flooring of at least two rooms in this later Roman building, preceded by the filling-in of their two known hypocausts.
6. The robbing of the walls of this later Roman building, presumably after it had been abandoned.

1, 2. DEMOLITION OF THE "STATE ROOMS"

No layer of demolition rubble overlay the floor of the great hall, Room 42, and indeed nowhere was there seen any clear trace of dirty occupation debris. This indicates that, during the use of the building, the floor was kept particularly clean, and that some explanation must be found for the obvious absence of demolition debris. Instead of a demolition layer in every uncovered section of Room 42 the mortar floor of the room was found to be immediately overlaid by a layer of yellow clay brickearth which contained many lumps of Kentish ragstone scattered throughout the deposit in a random fashion (Fig. 11, Section 3, Layer 7). The nature of the



dump suggests that the clay and the rubble had been brought to the site from excavations elsewhere in the city (no natural brickearth occurs in the area of the "state rooms"), and that this was dumped into the great hall prior to the general demolition. A similar sequence of dumping clay inside a Roman building prior to its demolition was discovered in the public baths in Huggin Hill, further west in the city,⁷⁷ perhaps suggesting that it was normal practice for the demolition of Roman public buildings on the terraces sloping down to the Thames.

3. ROBBING THE "STATE ROOM" WALLS

At a later stage some wall robbing occurred in the "state rooms" area, the only clear evidence of this being found in the east wall of the great hall, Room 42 (Fig. 11, Section 3, Layer 5). It is impossible to judge from the archaeological evidence whether or not this robbing was an extension of the general demolition of the "state rooms", or if it was a separate event, though the former explanation is probably more likely (see p. 24).

4, 5. CONSTRUCTION AND USE OF A LATER ROMAN BUILDING

Extensive but fragmentary traces of a later Roman building were found overlying the great hall, Room 42, and in 1961, during a small controlled archaeological excavation, part of one room, Room A, was examined in detail (Fig. 32). It was impossible to trace its plan during the building operations as its walls had been completely robbed in later times, though traces of three, perhaps four, rooms were found. This was not enough, however, to give a sufficient indication of the nature and purpose of the building though it is clear that its plan bore no relationship to the plan of the earlier palace building. The extent of the building is unknown, though as no traces of the building were found to the south of the south wall of Room 42 of the palace it is unlikely that the building extended into that area.

The most distinctive feature of the construction of this building was the floors which were of pure white rammed chalk containing numerous flint pebbles which had been burnt cherry red, thereby making the floor most attractive. The pebbles do not seem to have been included to decorate the floors, because they were buried in the chalk, and occurred in at least two lower floors of hypocausts which, of course, would not have been seen normally.

ROOM A

The walls on the east side of this room had been robbed (Fig. 11, Section 4), and the western part of the room had been destroyed. The form of the wall robber trench on the east side of the room, however, indicates that the chamber had multi-angular sides, though this may have been merely a recess in the side of a much larger room. The rammed chalk floor (Fig. 11, Section 4, Layer 3) which included the cherry red pebbles was 0.10 m thick and overlay a foundation of large slabs of ragstone (Layer 4) lying on top of the floor were a series of red burnt brick *pilae* of an hypocaust.

At a later stage the hypocaust was filled in with two layers of red burnt rubble and clay (Fig. 11, Section 4, Layer 2) which were in turn overlaid by a floor of yellow mortar (Fig. 11, Section 4, Layer 1).

ROOM B

Evidence of this chamber, which was adjacent to Room A, was recorded during the building operations, and was seen only in section. It comprised two portions of rammed chalk flooring containing numerous cherry red pebbles (Fig. 11, Section 3, Layers 3 and 6), which partly overlay the demolished earlier east wall of the great hall, Room 42, of the palace, and partly overlay a floor or foundation of pink concrete containing large portions of Roman bricks, some ragstone, and many red burnt flint pebbles (Fig. 11, Section 3, Layer 4). It is impossible to judge whether or not the concrete foundation was an earlier phase of flooring or merely a foundation for the chalk floor. In the easternmost portion of floor of this room part of a brick *pila* was found lying on the floor, while around and overlying it was a dump of brownish red burnt clay (Fig. 11, Section 3, Layer 2). This was in turn overlaid by a deposit of building debris comprising fragments of cement, broken bricks, and a number of white tesserae which may have formed a floor (Fig. 11, Section 3, Layer 1). It seems likely that these two deposits may be equated with the dumped filling and subsequent floor over the hypocaust in Room A.

ROOM C

An area of chalk flooring containing cherry red pebbles was found during the building operations to the north of Room A, and may indicate a room in addition to Rooms A and B. In the rubble debris immediately overlaying this floor, was found a loose piece of *opus sectile* (Fig. 42, No. 287) a form of decoration rarely found in Britain, but when found *in situ* it is usually on very early Roman sites (p. 96). In this post-palace

phase it is clearly out of context and is most likely derived from elsewhere in the City. A flagon was also found (E.R. 792) (Fig. 36, No. 100) in the rubble, and its mid-first century date confirms that the rubble was introduced from elsewhere and does not represent the debris of the post-palace building.

AREA 2: STRUCTURES REPLACING THE ORIGINAL PALACE BUILDING

DATING EVIDENCE

OCCUPATION OF THE BUILDING

Dating evidence was almost completely absent from this building. In the burnt debris filling the hypocaust of Room A (Fig. 11, Section 4, Layer 2) were found fragments of a Flavian coarse ware pot (E.R. 673) (Fig. 36, Nos. 90-91). Since these sherds come from a modification to a building that replaced the palace "state rooms", themselves of Flavian date, the sherds seem to have little value as dating evidence.

ROBBING OF THE BUILDING:

The only other evidence to be found connected with this building was recovered from the earth in-fill of the robbed wall of Room A (E.R. 674) (Fig. 11, Section 4, Layer 5). This included two sherds of medieval coarse pottery which are not precisely dateable but presumably indicate that the wall-robbing occurred during the Middle Ages.

AREA 3. DATING EVIDENCE: FILLING-IN OF THE GREAT POOL (46)

The great pool was filled in primarily by dumping debris from the north side, judging from the tip lines; and, although the deposits were all rapidly dug away by mechanical excavators during the recent rebuilding, it has been possible to establish that the earliest dumped deposits were of building debris, suggesting that the demolition of a Roman building, perhaps some of the "state rooms", had taken place. The filling of the great pool could only be examined in two places which are indicated on the plan (Fig. 12, Sections 10, 11; Fig. 13, Sections 10, 11).

SECTION 10 (Fig. 13)

The lowest layer of dumping (Layer 1) appeared to comprise building debris (E.R. 723) containing fragmented wall plaster, rubble, and tiles lying in a mass of loose red cement. The finds included three Roman sherds of indeterminate date. In the demolition debris wall decoration was represented by wall plaster mostly painted white, some pieces painted grey, and one piece painted bright blue. One small piece was painted pale mauve and had traces of some grey over-painted decoration, while another fragment was a piece of moulded stucco-painted white (Fig. 43, No. 294). Flooring was represented by one white tessera and, perhaps, by a piece of Purbeck marble.

Above this was a layer of black mud (Layer 3) which mostly overlay the floor of the pool south of or beyond the dump of E.R. 723. This mud contained various sherds (E.R. 724) (Fig. 36, No. 99) none of which need be later than the early second century; a reeded rim bowl fragment being the latest dateable object.

A deposit of sand (Layer 4) overlay E.R. 724, which, from the way the sand particles were stratified, appeared to have been water deposited. The finds (E.R. 727) included pottery, none of which need date much later than the end of the first century A.D. (not illustrated). Building debris was also included, and comprised a piece of painted red wall plaster, one or two pieces of shattered Purbeck marble, and a number of white and dark grey tesserae, most of which still bear traces of the pink cement into which they had originally been set. The dark grey tesserae appear to have been specially made of fired baked clay. A few fragments of glass were also found which included a piece of pale green window glass.

SECTION 11 (Fig. 13)

A series of dumped rubbish deposits was investigated near the east end of the great pool. They were lying on the floor of the pool and were lying against its north side. The objects recovered are very similar to the contents of the dumps in Section 10, indicating that they are all contemporary.

The main dumps had to be rapidly investigated and only a small collection of objects was recovered (E.R. 1023, 1024) (Fig. 36, No. 98). These include a few sherds, none of which need be later than the end of the first century A.D., a few tesserae of chalk and dark grey fired clay, pieces of Purbeck marble, and a few fragments of sandstone.

CONCLUSION

On the evidence recovered it is clear that the great pool was filled in not earlier than the early second century A.D., but, as this date is so soon after the date of the construction of the palace, it seems most likely that the pool was filled in considerably later than the dating evidence suggests.

AREA 5. END OF PALACE PHASE. LOWER TERRACE (Fig. 19)

The abandonment of the east wing is well dated by a considerable quantity of pottery, all of which points to the late third or fourth centuries A.D. The final phase was fully examined only in Room 14, where considerable dumpings occurred (E.R. 874, Fig. 36, Nos. 102-114) (E.R. 976, Fig. 38-41), but other scraps of dating evidence were recovered from the higher level of the east wing on the 6.4 m terrace.

The section across Room 14 (Fig. 19, Section 12) shows that the latest mortar floor was partly overlaid by a buff silty soil, Layer 11 and 12. The post holes which did not protrude through this deposit were found, in the mortar floor, showing that a timber structure, possible a staircase, had been destroyed before the silt was deposited. Pottery from Layer 11 (E.R. 967) (not illustrated) has been dated to the late third or early fourth century A.D. This silt layer appeared to be the result of a gradual accumulation over a period of time. It is also clear that the building was in a state of decay during the deposit of the silt, because it contained many small fragments of white painted plaster, presumably from the walls of the room.

Immediately overlying the silt was a roughly-built hearth constructed of fragments of bricks and tiles against the north wall of the corridor (Plate 2). One of these fragments was stamped retrograde P.P.B. (R.LON) (E.R. 968) (Fig. 42, No. 293). This had clearly been re-used because, although the hearth was not built with mortar, the tile fragment had mortar adhering to its surface. The upper surface of Layers 11 and 12 was trampled down as a crude floor level.

Parts of the faces of both the north and south walls of this corridor had been scorched by fires which had been built against them. The crude hearth, the scorched walls, and the trampled earth surface all indicate that, after decay had set in, the room was occupied by squatters.

Overlying Layers 11 and 12 were a number of thick deposits of black earth containing large quantities of rubbish. These are Layers 10 (E.R. 969), 2 (E.R. 970), 1 (E.R. 973) (Fig. 36, Nos. 94-95, 101), 5 and 6 (E.R. 971) and 4 (E.R. 972), all of which contained pottery of the fourth century. These deposits had evidently been deliberately dumped at one time and it was not always possible to determine the limits of each, and, for this reason, they have been described under the group reference E.R. 976 (Fig. 37, Nos. 115-49; Fig. 38, Nos. 150-74; Fig. 39, Nos. 175-212; Fig. 40, Nos. 213-44; Fig. 41, Nos. 245-80).

In Layer 2 was found a large quantity of fragments of brightly painted wall plaster, the predominant colour of which was yellow. The plaster had clearly been dumped in from the north side of the corridor since it was, for the most part, piled up against the north wall (not shown in section). It is likely that it was derived from some of the rooms of the east wing on the 6.4 m terrace. The deposit of plaster was at its thickest below Room 11. If it had been derived from the upper part of Room 14 itself, one would expect a few fragments to have occurred in Layers 11 and 12, but none were found.

It is of interest to note that in 1848, while the sewer in Suffolk Lane was being built, and parts of Rooms 13 and 14 were being excavated, Roach Smith also discovered painted wall plaster, one of the chief colours of which was yellow. One fragment had a "winged youthful head" painted upon it.⁷⁸ It is reasonable to suggest that these might have been found in a continuation of Layer 2 in Room 14, for this was the only deposit to contain brightly painted plaster.

It would seem that, after decay had set in and squatters had occupied Corridor 14 for a short while, it was filled with rubbish in the fourth century. Room 15 was also filled with similar large quantities of dumped rubbish which contained pottery (E.R. 977) (not illustrated) of the fourth century. Probably predating the dump was a well-preserved coin (*sestertius*) of Marcus Aurelius, minted in A.D. 176-77⁷⁹ which was found in the silt filling of the culvert in the north wall of Room 15 (E.R. 1020). Excavation south of Room 15 disclosed further late Roman dumped deposits overlying the structure of the palace, and in these were late Roman sherds (E.R. 980) (see Fig. 36, Nos. 96, 97).

SIGNIFICANCE

The destruction of the palace certainly occurred during the Roman period, for the "state rooms", the most obvious indication of the presence of the palace, were demolished and replaced by a later Roman building. Indeed, the robbing of the east wall of the great hall (Room 42) prior to the rebuilding was presumably to obtain building materials for re-use. This destruction seems to have been a deliberate move which did not follow an accidental destruction such as by fire, but rather probably reflected a major change in the policy

or structure of the provincial government. Deliberate destruction also occurred in the rooms to the north of the great hall (Room 42), while to the south the pools in the garden-court were deliberately filled with rubbish.

It is significant that the evidence of deliberate demolition and rebuilding was only found in the "state rooms" region and not on any part of the south wing, and it is possible that the rooms of the south wing continued to be occupied, perhaps as residential accommodation, long after the destruction of the "state rooms".

The only possible dating evidence was recovered from the south wing, where in the ash filling of the hypocaust of Room C (Fig. 24), presumably deposited while the hypocaust was in use, was found a small antoninianus of Gallienus issued about A.D. 270. Rubble and collapsed *pilae* of the demolished room overlay the ash, and clearly this destruction could not have occurred before about A.D. 270. In the south-eastern part of the palace, particularly in Room 14, large-scale dumping of rubbish occurred during the fourth century, evidently following a period of decay during which, it would seem, squatters had occupied the room.

REFERENCES

- ¹ W. Maitland *The History and Survey of London* i (London, 1755) 17.
- ² J. Leland *Collectanea* ed. T. Hearne, i (London, 1774) 60.
- ³ J. Stow *Survey of London* ed. Strype, ii (London, 1755) 692.
- ⁴ C. Roach Smith "Observations on Roman remains recently found in London", *Archaeologia* 29 (1842) 145.
- ⁵ C. Roach Smith *Illustrations of Roman London* (London, 1859) 14.
- ⁶ C. Roach Smith *Archaeologia* 29 (1842) 157.
- ⁷ F. W. Reader in *Victoria History of the Counties of England*, London i, ed. W. Page (London, 1909) 75.
- ⁸ A. Taylor "On the site of Roman London" *Archaeologia* 33 (1849) 101-24.
- ⁹ *Trans London Middlesex Archaeol Soc* 3 (1870) 213.
- ¹⁰ *Royal Commission on Historical Monuments . . . in London*, iii: *Roman London* (London, 1928) 110.
- ¹¹ P. R. V. Marsden "Mapping the birth of Londinium", *Geogr Mag* 44, No. 12 (1972) 840-45; and for a recent appraisal, G. H. Willcox, "Problems and possible conclusions relating to the history and archaeology of the Thames in the London region" *Trans London Middlesex Archaeol Soc* 26 (1975).
- ¹² W. F. Grimes *The Excavation of Roman and Medieval London* (London, 1968) 142-44.
- ¹³ T. Johnson "Excavations at Bush Lane House, 1972" *Trans London Middlesex Archaeol Soc* 24 (1973) 58.
- ¹⁴ R. Merrifield *The Roman City of London* (London, 1965), *Gazetteer* 119-21, 353.
- ¹⁵ Johnson *art. cit.* 60-64.
- ¹⁶ *Ibid.* 56-73.
- ¹⁷ R. Merrifield *Roman London* (London, 1969) 23-27; "Roman London Bridge" *London Archaeologist* 2 (1974) 188-91.
- ¹⁸ S. S. Frere *Britannia: A History of Roman Britain* (revised ed., London, 1974) 321-24.
- ¹⁹ *Britannia* 4 (1973) 271; G. Boon and C. Williams "The Dolaucothi drainage Wheel" *J. Roman Stud.* 56 (1966) 122-27.
- ²⁰ Guildhall Museum Accession No. 1617, provenance unknown.
- ²¹ Merrifield *Roman London*, 72-73.
- ²² Johnson *art. cit.* 56-57.
- ²³ *Ibid.* Fig. 31, "F.4".
- ²⁴ *Ibid.*
- ²⁵ *Ibid.*
- ²⁶ *Ibid.* "F.5".
- ²⁷ *Ibid.* Fig. 31A, "F.6".
- ²⁸ *Ibid.* Fig. 30, Layer 6.
- ²⁹ Roach Smith *art. cit.* 157.
- ³⁰ *Ibid.* 156-57.
- ³¹ *Ibid.*
- ³² P. R. V. Marsden "Archaeological Finds in the City of London, 1961" *Trans. London Middlesex Archaeol. Soc.* 21, Pt. 1 (1963) 72-73.
- ³³ Roach Smith *art. cit.*, p. 157.
- ³⁴ T. Tatton-Brown "Excavations at the Custom House Site, 1973" *Trans London Middlesex Archaeol Soc* 25 (1974) 125, Fig. 8.
- ³⁵ Roach Smith *art. cit.* 156; *loc. cit.* 402.
- ³⁶ *Roman London* 110, Plan A.109.
- ³⁷ Noted in *J. Brit Archaeol Assn* 2 (1847) 341.
- ³⁸ J. Price "Notes on Roman remains recently discovered in London and Middlesex", *Trans. London Middlesex Archaeol Soc* 3 (1870) 212-14.
- ³⁹ J. Price "Reminiscences of the Steelyard formerly in Upper Thames Street" *Trans London Middlesex Archaeol Soc.* 3 (1870) 74-75.
- ⁴⁰ *Ibid.* 74-75, 212-17.
- ⁴¹ Compiled from notes by Mrs. E. Harris of Guildhall Museum, and by Freeman, Fox and Partners, Consulting Engineers.
- ⁴² *Roman London* 143.
- ⁴³ *Ibid.*
- ⁴⁴ Tatton-Brown *art. cit.* 125, Fig. 8.
- ⁴⁵ Merrifield *Roman City of London*, *Gazetteer* 262.
- ⁴⁶ Johnson *art. cit.* 64.
- ⁴⁷ Merrifield *Roman City of London*, *Gazetteer* 251, 267, 283, 296.
- ⁴⁸ J. Stow *A Survey of London*, ed. C. L. Kingsford (London, 1971) i, 224.
- ⁴⁹ C. Wren *Parentalia* (London, 1750) 265.
- ⁵⁰ Merrifield *Roman City of London* 271; *Roman London* 95-97.
- ⁵¹ *Trans London Middlesex Archaeol Soc* 20, Pt. 4 (1961) 223.
- ⁵² Merrifield *Roman London* 95-97.
- ⁵³ Tatton-Brown *art. cit.* 122-38.
- ⁵⁴ Noted in *J. Brit Archaeol Assn* 2 (1847) 341.

- ⁵⁵ J. Wachter *The Towns of Roman Britain* (London, 1975) 92.
⁵⁶ P. R. V. Marsden "Archaeological Finds in the City of London, 1965-66" *Trans London Middlesex Archaeol Soc* 22, Pt. 1 (1968) 9.
⁵⁷ *Merrifield Roman London* 68-88.
⁵⁸ R. G. Collingwood and R. P. Wright *The Roman Inscriptions of Britain* (Oxford, 1965) No. 12.
⁵⁹ *Merrifield Roman London* 69; M. Hassall "Roman Soldiers in Roman London" in *Archaeological Theory and Practice* ed. D. Strong (London, 1973).
⁶⁰ H. Chapman "Excavations at Aldgate . . . 1972" *Trans London Middlesex Archaeol. Soc.* 24 (1973) 48, No. 9.
⁶¹ Collingwood and Wright *op. cit.* No. 19.
⁶² Hassall *art. cit.* 233-37.
⁶³ *Merrifield Roman London* 77.
⁶⁴ Grimes *op. cit.* 15-40.
⁶⁵ *Merrifield Roman City of London*, Plate 90.
⁶⁶ Hassall *art. cit.* 235.
⁶⁷ Noted in *J Brit Archaeol Assn* 38 (1882) 206; 39 (1883) 389; *Victoria County History of London* i, 108.
⁶⁸ Noted in *Trans London Middlesex Archaeol. Soc* 5, Pt. 2 (1925) 189.
⁶⁹ Noted in *J Roman Stud* 56 (1966) 222.
⁷⁰ Noted in *Britannia* 1 (1970) 312.
⁷¹ *Merrifield Roman City of London*, Gazetteer 110-19, 125.
⁷² Wachter *op. cit.* 91.
⁷³ B. Cunliffe *Excavations at Fishbourne, 1961-69* (Research Reports of the Society of Antiquaries of London, 26) (London, 1971) i, 150-51.
⁷⁴ O. von Doppelfeld "Römische Grossbauten unter dem Kölner Rathaus" *Germania* 34 (1956) 83 ff.
⁷⁵ I. A. Richmond *Roman Archaeology and Art. Essays and Studies* ed. P. Salway (London, 1969) 226, Fig. 5.
⁷⁶ M. Rostovtzeff, A. Bellinger *et al.*, *The Excavations at Dura-Europos: Preliminary Report on the Ninth Season, 1935-36: Part III, The Palace of the Dux Ripae and the Dolichenum* (Yale, 1952).
⁷⁷ P. R. V. Marsden "Archaeological Finds in the City of London, 1963-64" *Trans London Middlesex Archaeol Soc* 21, Pt. 3 (1967) 200.
⁷⁸ Noted in *J Brit Archaeol Assn* 4 (1849) 338.
⁷⁹ H. Mattingly and E. A. Sydenham *The Roman Imperial Coinage*, iii (London, 1930) (Marcus Aurelius). No. 1205.

THE FINDS DATING EVIDENCE

The finds from the Roman palace site primarily comprise the dating evidence for the structure, as the investigation was mostly undertaken in a rescue situation. Some of the material recovered is not suitable for publication, but nevertheless the references are given here to the Museum of London "Excavation Register" (e.g. E.R. 1117) in which groups of excavated objects are catalogued. This will enable the significance of the finds to be reconsidered in the future in the light of later excavations in the area. These Excavation Register groups are available for study on application to the Director of the Museum of London. In the absence of a detailed study of Roman pottery types and their dates in London it has been difficult always to give certain dates for some of the deposits, particularly those of the third and fourth centuries. For this reason the pottery content of the large fourth century dump in Room 14 is given more fully, as large late Roman groups are not often found.

(Fig. 33) PRE-PALACE GROUPS:

E.R. 1117 Area 1: Pit 6 (p. 16):

1. Bead rim jar. Fine, hard, light grey, sandy fabric with darker surfaces. Burnished zone just below rim.
2. Bead rim jar. Fine, hard, dark grey, sandy fabric. Polished zone just below rim.
3. Jar. Fine, hard, light grey, sandy fabric. Polished exterior (cf. Chapman, 1973, Fig. 10, No. 81, dated Neronian-early Flavian).
4. Jar. Hard grey fabric, with dark surfaces. Exterior is smoothed on rim and just below (for type see No. 3).
5. Necked jar. Fine, hard, light grey ware, with slightly darker surfaces. Exterior is polished.
6. Jar. Soft, fine, brown micaceous fabric. Black surfaces, the exterior having a zone of shallow grooves.
7. Bead rim jar. Small size. Soft, brown, sandy ware with black surfaces.
8. Bowl? Hard, light grey ware, with dark grey, lumpy surfaces. Groove on top of rim.
9. Bowl. Hard, light grey ware, very similar to No. 8, with dark grey/black surfaces. Incised wavy line decoration on body. Groove on top of rim.
10. Bowl. Hard, light grey ware, similar to No. 9, with dark grey/black lumpy surfaces. Groove on top of rim.

11. Bowl. Fine, hard, light grey fabric with dark grey surfaces. Groove on top of rim.

Dating: This is a typically Flavian group, the necked jars being of a particularly distinctive Flavian type, which possibly continued to be produced in the early second century; cf. Cunliffe (1971, ii, 237, Nos. 317-19, dated first to early second centuries); Kenyon (1959, 53, Fig. 16, Nos. 1-5, dated mostly Flavian-early second century).

E.R. 1160. Area 1, Pit 6:

12. Bowl. Soft, pale grey, lumpy fabric of native type.
13. Flagon. Hard, sandy, buff ware; cf. Cunliffe (1971, ii, 202, type 14, dated late first-early second century).
14. Bowl. Hard, pale grey ware with darker grey surfaces; cf. Kenyon (1959, Fig. 15, No. 8, dated Flavian).
15. Beaker. Fine, hard grey ware.
16. Bead rim jar. Pale grey, sandy ware with darker grey surfaces. Smoothed rim and zone immediately below rim.
17. Bead rim jar. Soft, lumpy, pale grey ware with darker surfaces. Smoothed rim and zone immediately below rim.
18. Bead rim jar. Soft, lumpy, pale grey ware, including some flint tempering. Darker grey surfaces.

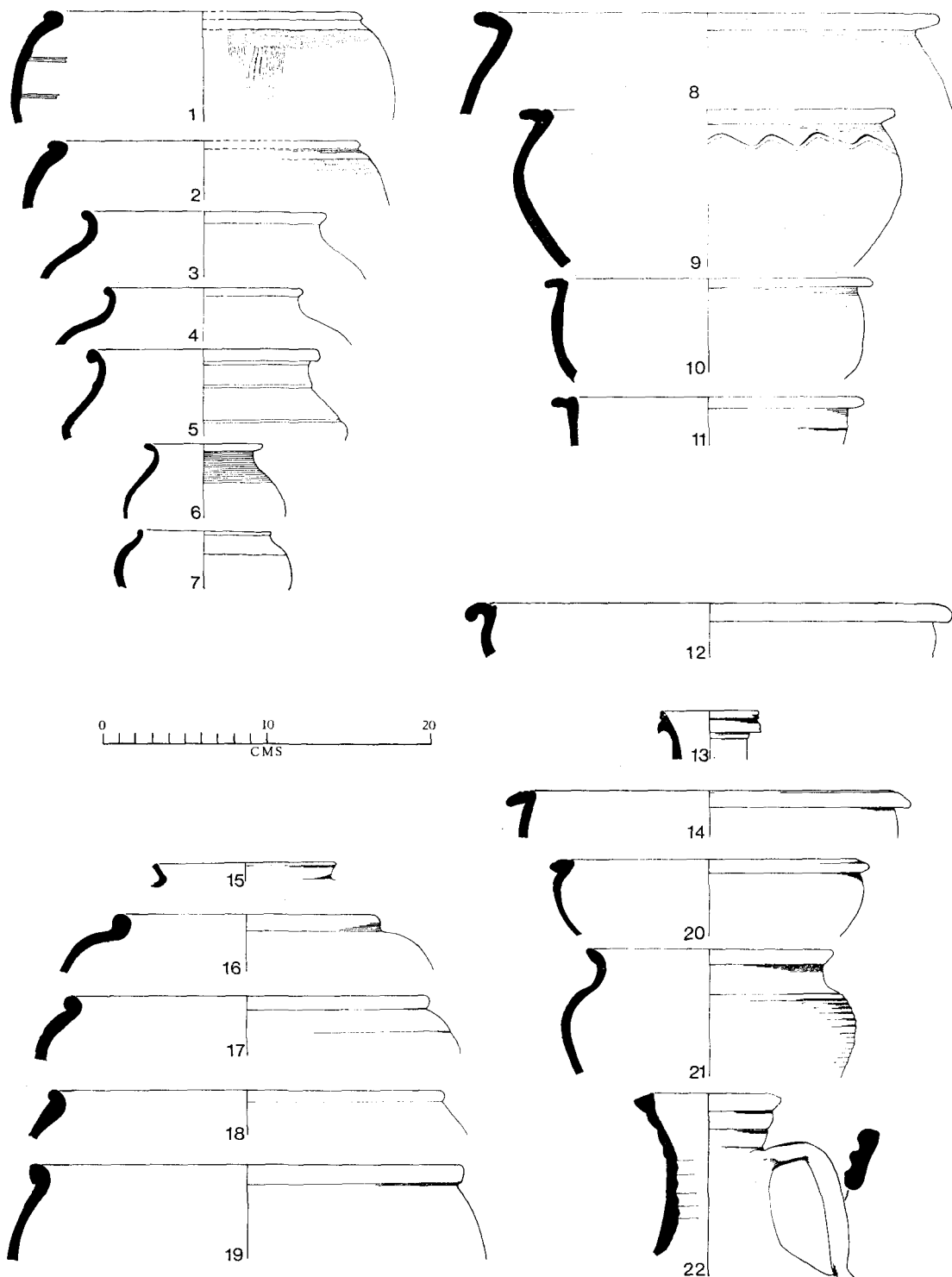


Fig. 33 Roman Palace. Roman pottery Nos. 1-22 from Pit 6, probably pre-dating the palace ($\frac{1}{4}$)

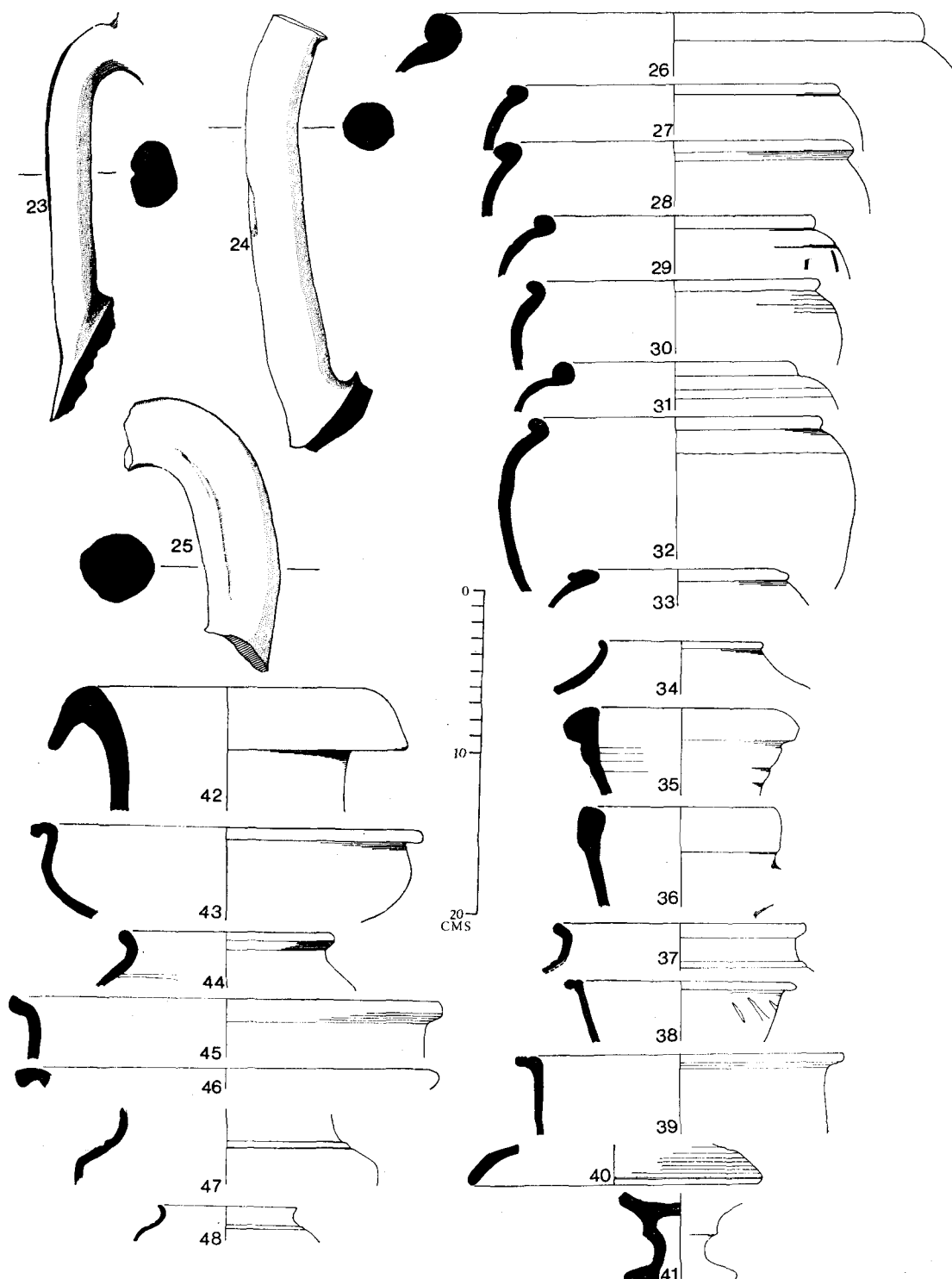


Fig. 34 Roman Palace. Coarse pottery Nos. 23-48 from a deposit, cut by Pit 6, probably pre-dating the palace ($\frac{1}{4}$)

19. Bead rim jar. Soft, lumpy, pale grey ware with flint tempering. Dark grey inner surface, pale grey outer surface. Smoothed zone immediately below rim.
 20. Bowl. Pale grey, soft lumpy ware. Two grooves on top of rim.
 21. Necked jar. Hard, pale grey, sandy ware. Body below neck is closely rilled; *cf.* Cunliffe (1971, ii, Fig. 103, Type 181, dated not later than Flavian).
 22. Flagon, ring necked. Hard, buff, sandy ware; *cf.* Chapman (1973, Fig. 14, No. 167, dated Flavian); Frere (1972, i, Fig. 107, No. 241, dated A.D. 85-105).
- Dating:* Although the date range of this group is late first-early second century, the bulk of the group is Flavian, perhaps latter half, which should be considered to be the date of the deposit.
- E.R. 1162. Area 1. Pre-palace deposit cut by Pit 6 (p. 16). Fig. 34:
23. Amphora handle. Pinkish-buff ware. Cream slip on exterior surface.
 24. Amphora handle. Fine, buff ware, with cream slip on exterior surface.
 25. Amphora handle. Brownish-buff, soft, sandy ware, with pale grey core and coarse quartz grits; *cf.* Cunliffe (1971, ii, Fig. 99, Type 145, dated pre-A.D. 75).
 26. Bead rim jar. Brown-grey ware with black surfaces. Coarse sand grit.
 27. Bead rim jar. Fine, hard, grey ware.
 28. Bead rim jar with groove on rim. Sandy, pale grey ware with dark grey surfaces.
 29. Bead rim jar. Fine, pale grey, sandy ware. Smoothed rim and zone between rim and body groove.
 30. Bead rim jar. Soft, lumpy, grey ware with sandy grit. Smoothed zone below rim.
 31. Bead rim jar. Hard, sandy, dark grey ware. Smoothed exterior surface.
 32. Bead rim jar. Soft, light grey, lumpy ware with some grit. Dark grey surfaces.
 33. Jar, with flat bead rim. Soft, pale grey-brown ware with black grit.
 34. Beaker, possibly of carinated type. Hard, sandy, pale grey ware, with dark grey surfaces; *cf.* Cunliffe (1971, ii, Fig. 89, Type 69, dated first century).
 35. Amphora neck. Soft, buff, sandy ware.
 36. Amphora neck. Pale pink, sandy ware, with pinkish-buff slip.
 37. Necked jar. Brown-grey, sandy ware, with dark grey surfaces. Cordon at base of neck. A common Flavian type; *cf.* Cunliffe (1971, ii, Fig. 103, Type 180).
 38. Bowl? Hard, dark grey, sandy ware. Groove on top of rim.
 39. Bowl. Hard, sandy, grey ware, with dark grey surfaces. Groove on top of rim.
 40. Lid. Hard, fine, pale grey ware, with pale grey polished surfaces.
 41. Pedestal base of tazza. Hard, sandy, buff ware with pinkish surface. Traces of burning inside bottom of bowl.
 42. Amphora with outflaring rim. Soft, buff-pale yellow ware; *cf.* Cunliffe (1971, ii, Fig. 99, Type 146, dated first century A.D.).
 43. Bowl. Hard, coarse gritted, pale grey ware with dark brown surfaces. Shallow groove on rim; *cf.* Kenyon (1959, Fig. 15, No. 8, dated first-early second century).
 44. Jar. Soft, sandy, micaceous, dark pink ware with pale brown surfaces.
 45. Bowl. Hard, sandy, pale grey ware, with darker grey surfaces. Smoothed outer surface.
 46. Bowl. Soft, pale grey-brown, gritted ware with dark grey-brown lumpy surfaces.

47. Necked jar. Sandy, grey-brown ware, with dark grey surfaces, the outer surface being burnished. Cordon at base of neck; *cf.* Cunliffe (1971, ii, 103, Type 180, dated first century).

48. Jar. Fine, hard, grey ware, with a pale grey slip on exterior.

Dating: Flavian.

FIG. 35:

E.R. 681. Pit 5 (Fig. 4):

49. Jar. Coarse, soft, grey-brown ware with much shell tempering.

50. Flagon base. Fine, sandy, pale pinkish-brown ware, with small red inclusions. Well formed underside of base.

Dating: first century.

E.R. 1018 Well 1 (Figs. 4, 5):

51. Carinated beaker. Fine, grey ware.

Dating: This is a characteristic first century type; see Cunliffe (1971, ii, Fig. 89, Type 69).

E.R. 957. Pit 4 (Fig. 5):

52. Necked jar. Fine, grey ware.

Dating: Flavian type.

E.R. 1021. Pit 1 (Fig. 5):

53. Necked jar. Fine, grey ware.

Dating: Flavian type.

E.R. 1032-33. Well 2 (Fig. 5):

54. Beaker, possibly carinated type. Fine, flakey, grey-brown, micaceous ware, with black surfaces. Incised lattice decoration on shoulder.

55. Bowl. Rim sherd only. Fine, grey-brown ware with a little flint grit. Black surfaces.

56. Jar. Grey, gritty ware with dark surfaces.

57. Jar. Dark, grey-black micaceous ware with black surfaces.

58. Mortarium. Sandy, pink-buff ware. Pale grey-blueish area on surface of rim. Burnt flint grits in bowl. This is a characteristic first century form particularly common during the Flavian period; *cf.* Cunliffe (1971, ii, Fig. 97, Nos. 136-37; Fig. 111, Nos. 279-82, dated Nero-mid Flavian); Frere (1972, i, Fig. 106, Nos. 223-25, dated Flavian).

Dating: Flavian.

E.R. 962. Pit 2 (Fig. 5):

59. Jar. Fine, grey-brown micaceous ware. Smoothed grey outer surface. First century type.

60. Jar. Grey ware. First century type.

61. Jar. Hard, pale grey-brown, sandy ware. Dark grey surfaces, the outside and the rim burnished. Cordon at neck.

Dating: First century, probably Flavian.

E.R. 964. Pit 1 (Fig. 5):

62. Bowl. Brown ware with grey core, and with a dark grey, lumpy surface. Black and brown inclusions in the core. Lower part of the body is smoothed.

63. Beaker. Fine, hard, grey micaceous ware, with a decoration of applied pellets; *cf.* Cunliffe (1971, ii, Fig. 90, Type 73.2, dated first century, particularly Flavian).

64. Jar. Hard, pale grey, sandy ware, with darker surfaces.

65. Jar. Cordon at base of neck. Pale grey-brown ware, with slightly darker surfaces. Polished outer surface.

66. Bead rim jar. Rim and shoulder polished. Hard, pale, sandy, grey ware with medium grey surfaces.

67. Jar. Grey, sandy fabric.

68. Flagon. Hard, buff, sandy ware.

69. Flagon. Hard, buff, sandy ware.

70. Storage jar. Soft, grey-brown ware, with coarse shell tempering. Smoothed rim and neck.

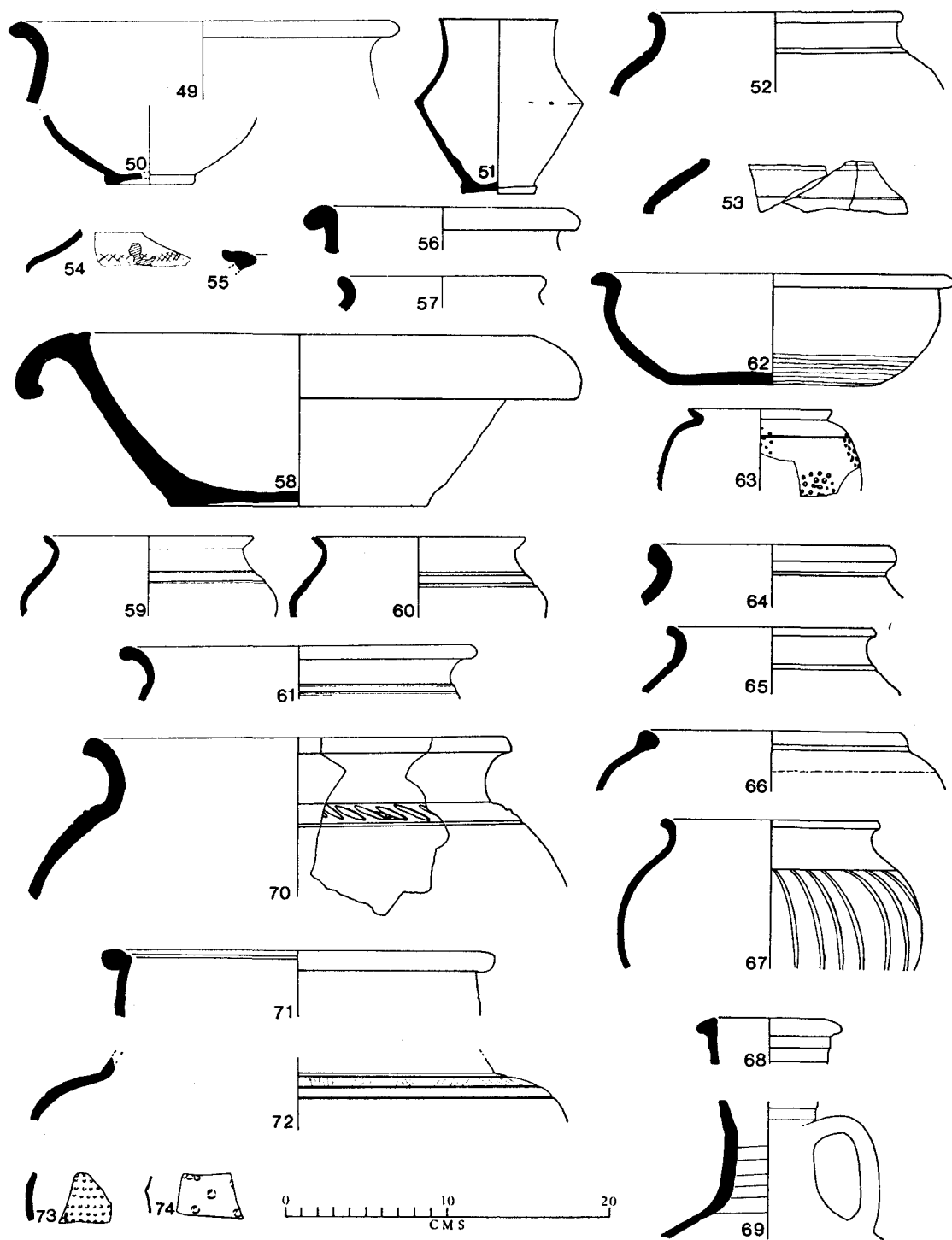


Fig. 35 Roman Palace. Coarse pottery Nos. 49-74, from deposits pre-dating the palace ($\frac{1}{4}$)

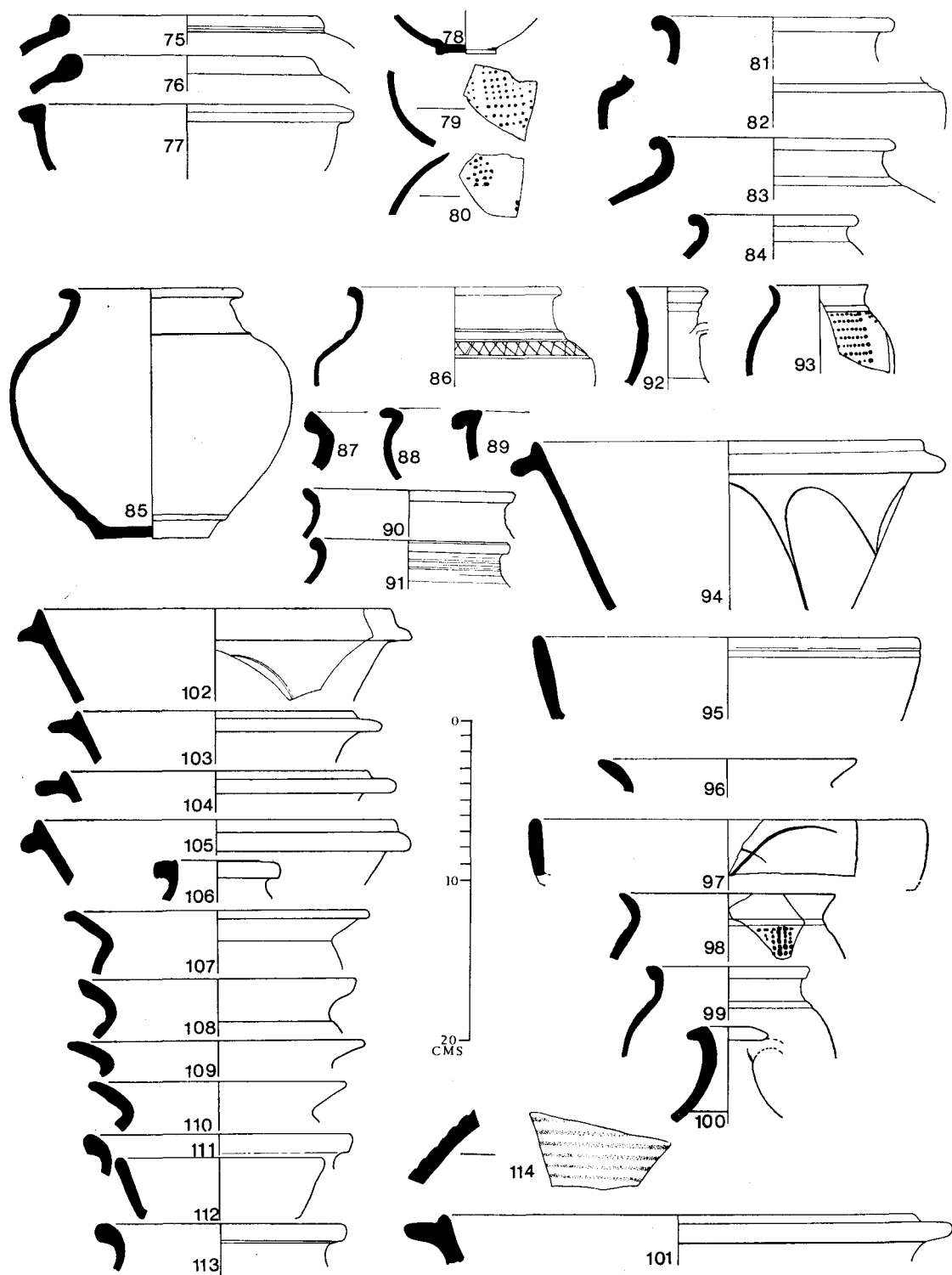


Fig. 36 Roman Palace. Coarse pottery Nos. 75-93, from deposits probably pre-dating the palace. Pottery Nos. 94-114 from deposits dating from the end of the palace ($\frac{1}{4}$)

71. Bowl. Fine, grey ware. Burnished lines on body; cf. Kenyon (1959, Fig. 15, No. 10, dated Flavian-Trajan).
72. Necked jar. Pale, sandy, grey ware with darker surfaces. Zone of decoration between cordon at base of neck and cordon on shoulder.
73. Poppyhead beaker, with applied pellets. Fine, grey ware with polished exterior surface. These vessels are characteristic of the later part of the Flavian period and of the first half of the second century; cf. Cunliffe (1971, ii, Type 267).
74. Beaker, decorated with bosses pushed from inside the vessel before firing. Fine, hard, red ware, the exterior yellow-brown in colour and mica dusted. This is a typical Flavian-early second century type; cf. Cunliffe (1971, ii, Fig. 10, Type 274).

Dating: The parallels and pottery typology indicate a date in the latter half of the Flavian period. The samian ware (Fig. 42, Nos. 281-86) indicate a date after A.D. 80.

(Fig. 36):

E.R. 1022 (Pre-palace deposits in Room 5, p. 38):

75. Bead rim jar. Pale grey, sandy ware with medium grey surfaces.
76. Bead rim jar. Medium grey, sandy ware, with pale core.
77. Bowl. Brown ware with grey core. Grey, lumpy surfaces with traces of burning inside and outside.
78. Jar? Brown ware with a dark grey core. Surfaces are black.
79. Poppyhead beaker. Hard, fine, grey ware, with a pale grey slip outside. Applied barbotine dots.
80. Beaker? Fine, hard, grey, micaceous ware, decorated with clusters of applied barbotine dots; cf. Frere (1972, Fig. 103, No. 126, dated A.D. 60-75).
81. Necked jar. Hard, sandy, brown ware with a grey core. Exterior surfaces are dark grey.
82. Necked jar. Pale grey, hard, sandy ware with dark grey surfaces.
83. Necked jar. Hard, brown, sandy ware with a grey core. Surfaces are dark grey, the outer being smoothed.
84. Necked jar. Hard, pale grey, sandy ware, with a darker grey exterior surface.

Dating: The bead rim jars, necked jars and poppyhead beakers are all characteristic of the Flavian period, which is the date of this group.

E.R. 959 (Foundation trench of east wing of the palace, Area 4):

85. Jar. Fine, micaceous, pale orange ware. Cordon at base of neck and just above base.

Dating: first century.

E.R. 958 (Rubble foundation of possible hypocaust in Rooms 1 and 2, Area 4):

86. Necked jar. Fine, grey ware, with cordon at base of neck, and zone of decorative lattice design on shoulder.
87. Jar. Grey ware. This had a diameter of about 255 mm.
88. Bowl. Dark brownish-grey ware.

Dating: Flavian.

E.R. 1031 (below floor of Room 19):

89. Flagon. Greyish-brown ware with a dark grey slip.

Dating: Flavian.

E.R. 673 (Fig. 11, Section 4, Layer 2):

90. Necked jar. Pinkish-brown ware with a grey slip.
91. Necked jar. Grey ware.

Dating: Flavian.

E.R. 951 (foundation trench of east wing of palace, Area 4):

92. Flagon. Buff, hard ware. Single handle.

Dating: late first-early second century type.

E.R. 1028 (below floor of Room 25):

93. Poppyhead beaker. Fine, pale grey ware with dark grey inner and outer surfaces. Rows of decorative applied dots below the cordon at the base of the neck.

Dating: late first-early second century.

DESTRUCTION OF PALACE GROUPS:

(Fig. 36):

E.R. 973 (Room 14, Fig. 19, Section 12, Layer 1):

94. Flanged bowl. Brownish-grey sandy ware, with dark grey surfaces. The inside and rim are burnished, and the exterior has a burnished wavy line decoration.
95. Dish. Grey, sandy ware, with black surface.

(See also No. 101).

Dating: fourth century.

E.R. 980 (Late Roman dumping in Area 5, p. 77):

96. Jar. Grey, sandy ware, the upper surface of the lip burnished.
97. Dish. Brown, sandy ware; smoothed rim and interior. The exterior surface is decorated with burnished lines. Discoloured by burning.

Dating: third-fourth centuries A.D.

E.R. 1024 (Dumps into the great pool, Feature 46):

98. Beaker. Poppyhead type. Hard, light grey ware, the outside with a light grey slip. Decorated with applied dots of clay.

Dating: late first-second century.

E.R. 724 (Fig. 13, Section 10, Layer 3):

99. Jar. Hard, fine grey ware, with a dark burnt exterior surface.

Dating: Flavian.

E.R. 792:

100. Flagon. Pinkish ware; cf. Cunliffe (1971, ii, Fig. 95, Type 120, dated end first century A.D.).

Dating: the date of this deposit is unknown but certainly much later than the pottery.

E.R. 973 (Also Nos. 94-95):

101. Flanged bowl. Pale grey, hard, sandy ware with a dark grey burnished rim and interior surface.

Dating: fourth century type.

E.R. 974 (late Roman dumping into Room 14, p. 77):

102. Flanged bowl. Hard, grey, sandy ware. Burnished inside and on rim. Outer decoration of curving burnished lines.
103. Flanged bowl. Grey, sandy ware, with black surfaces. The rim and interior are burnished.
104. Flanged bowl. Hard, grey, sandy ware, with black surfaces. The rim and interior are burnished.
105. Flanged bowl. Grey, coarse, sandy ware with cream slip on rim and interior.
106. Flagon. Hard, pale grey ware, with dark grey surfaces. The rim and exterior are burnished.
107. Jar. Soft, brown, sandy ware, with black surfaces. The upper surface of the rim is burnished.
108. Jar. Hard, dark grey, sandy ware.
109. Jar. Hard, grey, sandy ware with black surfaces. The upper surface of the rim is burnished.
110. Jar. Hard, mid-grey ware with black surfaces. Burnished top of rim.
111. Jar. Dark grey, fine, sandy ware.
112. Dish. Black, sandy ware, with black burnished surfaces.
113. Jar. Hard, pale grey, sandy ware, with traces of black burning on exterior of rim.

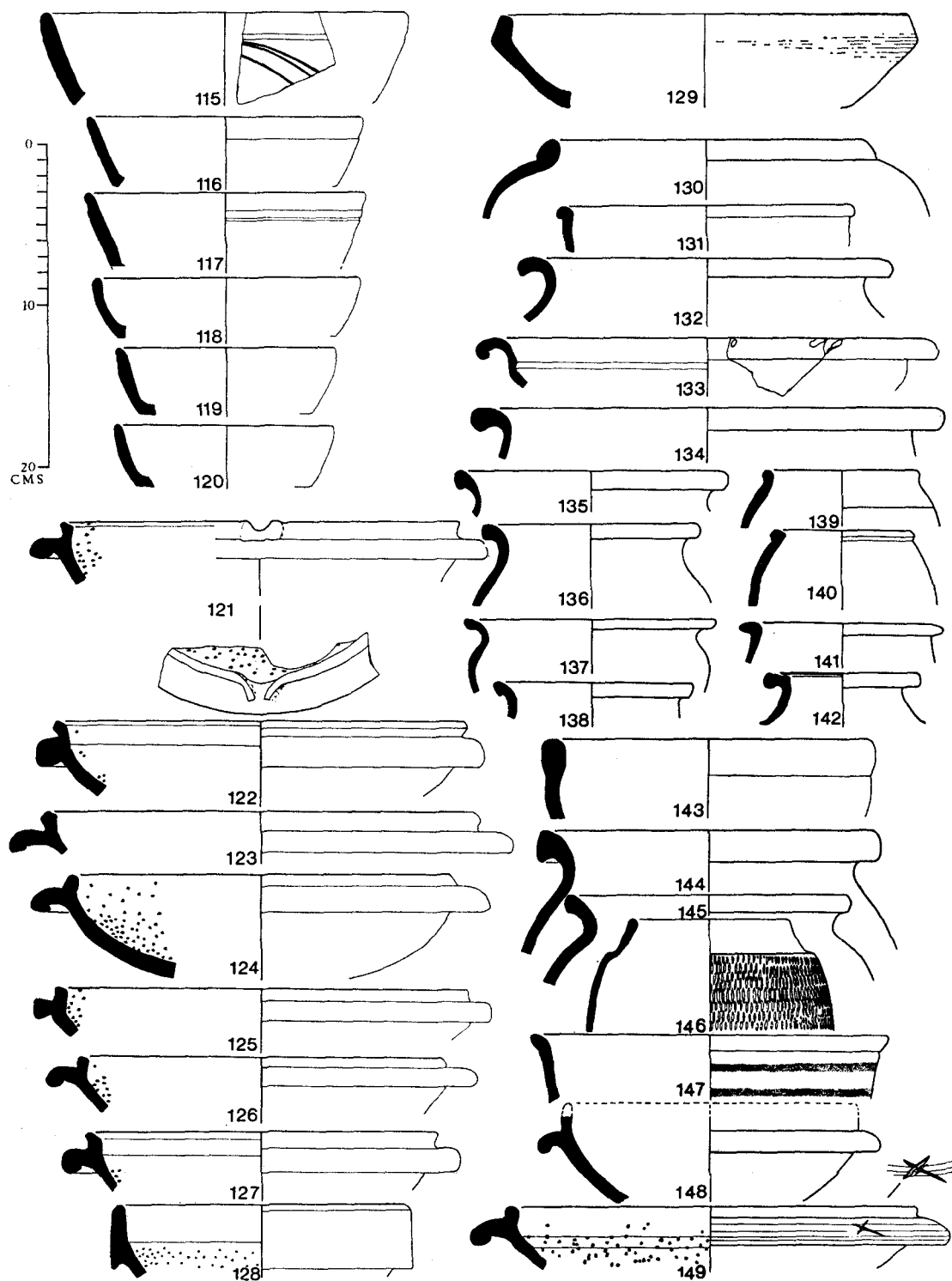


Fig. 37 Roman Palace. Coarse pottery Nos. 115-149 dating from the end of the palace ($\frac{1}{4}$)

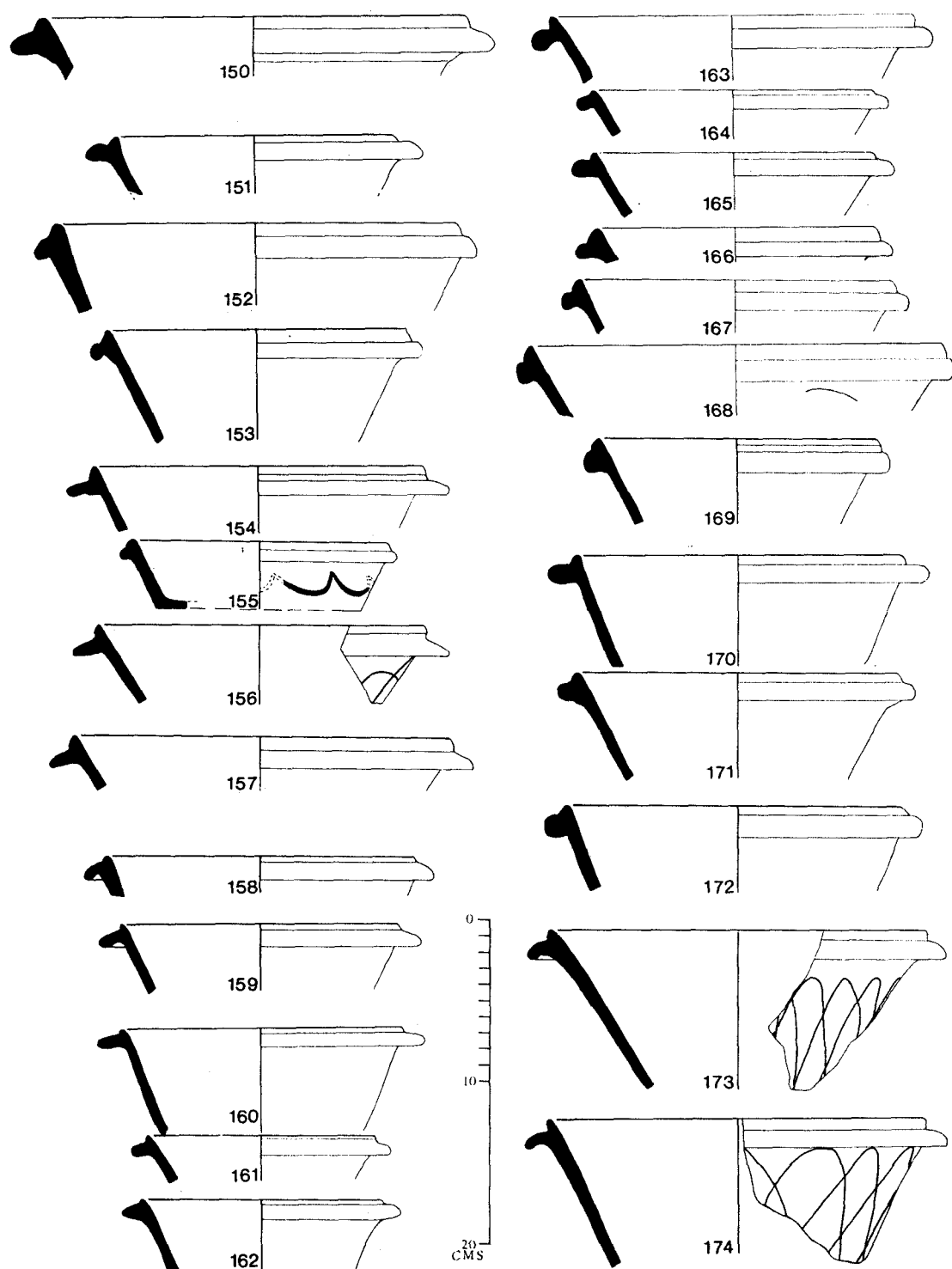


Fig. 38 Roman Palace. Coarse pottery Nos. 150-174 from deposits dating from the end of the palace ($\frac{1}{4}$)

114. Amphora. Hard, pink, sandy ware. Exterior surface has a series of parallel grooves cut at an angle to the surface of the vessel so as to slightly undercut the surface. The resulting ribbed surface is coated with a cream slip.

(Fig. 37):

E.R. 976 (late Roman dumping into Room 14, p. 77):

115. Dish. Hard, pale grey, sandy ware. Burnished inside, and with a black slip inside and covering rim only outside. Lightly scored decorative lines.
116. Dish. Pale grey, hard, sandy ware. Burnished black inside, with outer surface black.
117. Dish. Hard, grey, sandy ware. Burnished black inside. Outer surface black.
118. Dish. Fine, hard, sandy ware with burnished silver-grey surface.
119. Dish. Dark grey sandy ware. Burnished black inside and on lip outside.
120. Dish. Hard, sandy, grey ware. Burnished grey inside and on lip outside.
121. Mortarium. Hard, white ware with pink, flint grit inclusions; cf. Frere (1972, i, Fig. 138, No. 1277, dated fourth century).
122. Mortarium. Hard, fine, sandy, buff ware, with an orange surface on bead and flange of rim.
123. Mortarium. Hard, fine, sandy, buff ware, with orange surface on bead and flange of rim. Soot from burning on underside of rim. Orange grit internally.
124. Mortarium. Hard, fine, sandy, buff ware, with an internal scatter of pinkish flint grit; cf. Sheldon (1971, 59, No. 4, dated fourth century).
125. Mortarium. Pinkish-buff, fine, hard ware, with internal surface scatter of pinkish flint grit. Black soot from burning on rim.
126. Mortarium. Fine, hard, buff ware, with an internal scatter of pinkish grit. Orange and bluish exterior surface.
127. Mortarium. Fine, hard, buff ware, with a scatter of pinkish grit on its internal surface. Traces of soot from burning.
128. Mortarium. Fine, hard, red, sandy ware with a grey core, and with red burnished outer and inner rim surfaces; cf. Cunliffe (1971, ii, Fig. 118, Type 366, dated late third-early fourth century); Sheldon (1971, 59, No. 1, dated fourth century).
129. Dish. Pinkish buff ware with much grey-pink grit (not flint). The surfaces are lumpy, and of a chocolate brown-grey colour.
130. Bead rim jar. Pale, sandy, grey ware with darker grey surfaces. Burnished rim and zone below. This is a residual find of the first century A.D.
131. Bowl. Reddish, sandy ware with a grey core, and polished interior and exterior surfaces.
132. Jar. Hard, fine, pale grey, sandy ware. Grey slip on upper surface of rim.
133. Dish. Fine, pink, micaceous ware with red slip, and cream-coloured paint on rim. Oxfordshire type; cf. Bushe-Fox (1928, ii, Plate XXXII, Nos. 176-77, dated probably late third or fourth century).
134. Jar. Fine, grey, sandy ware with dark slip on rim and exterior surface.
135. Jar. Fine, hard, grey, sandy ware.
136. Jar. Fine, hard, grey ware; cf. Sheldon (1971, 59, No. 24, dated fourth century).
137. Jar. Fine, hard, grey, sandy ware, with a burnished lip and zone on the shoulder.
138. Jar. Dark grey, sandy ware.
139. Jar. Grey, sandy ware, with dark grey, burnished zone around the rim and just below.

140. Jar. Pinkish-creamy coloured, hard, sandy ware, with small areas of orange colouring on the outer surface.
141. Jar. Soft, dark-grey ware, with burnished rim and exterior surface.
142. Jar. Fine, dark-grey ware, with burnished rim. Two grooves on rim.
143. Bowl. Hard, sandy, red ware with a grey core; cf. Sheldon (1971, 62, No. 3 for type; dated fourth century).
144. Jar. Pale, fine, grey, sandy ware.
145. Jar. Brown, sandy ware, the exterior and rim heavily burnt black.
146. Jar. Fine, pale, pinkish-grey ware, with a chocolate-brown colour coat which has a silvery sheen on the surfaces. The body of the jar is rouletted.
147. Bowl? Fine, white ware, the exterior surface decorated with two horizontal painted orange-brown lines.
148. Flanged bowl. Sandy, red ware with a grey core. The exterior is covered with a red colour coated slip.
149. Mortarium. Fine, hard, white ware, with pinkish grit on inner surface of the bowl. There is a scratched *graffito* in the form of an X on the flange of the rim. The exterior, particularly the flange, is burnt black.

(Fig. 38):

150. Flanged bowl. Hard, pale grey, fine, sandy ware, with burnished interior and top of rim.
151. Flanged bowl. Fine, pinkish-buff ware, with orange slip on surfaces. The rim a little burnt. ?Oxford ware.
152. Flanged bowl. Medium grey ware, the surfaces burnished.
153. Flanged bowl. Hard, grey, sandy ware with interior and upper part of rim coated with a black slip.
154. Flanged bowl. Ware and slip similar to No. 153.
155. Dish. Grey-brown, sandy ware with black slip on interior and on top of rim. Exterior surface decorated with smoothed wavy line. Traces of burning.
156. Flanged bowl. Grey, sandy ware. The interior and top of flange burnished black. The exterior is decorated with burnished curving lines.
157. Flanged bowl. Ware and burnishing similar to No. 156.
158. Flanged bowl. Black, sandy ware, the top of the rim and the interior surface (?) being burnished black.
159. Flanged bowl. Grey-brown, sandy ware, with black surfaces, the interior and rim being burnished black. The exterior surface is also black, though not burnished.
160. Flanged bowl. Ware and burnishing similar to No. 159.
161. Flanged bowl. Fine, hard, pale grey ware, the exterior surfaces having been smoothed to a darker grey.
162. Flanged bowl. Fine, pale grey ware, the interior surface and the rim being burnished to a pale grey.
163. Flanged bowl. Fine, hard, pale grey ware, with smoothed medium grey surfaces.
164. Flanged bowl. Soft, pale grey ware, with darker grey, smoothed surfaces.
165. Flanged bowl. Hard, pale grey ware, with slightly darker grey, smoothed surfaces.
166. Flanged bowl. Dark grey, sandy ware, with smoothed black surfaces.
167. Flanged bowl. Hard, pale grey ware, with medium grey surfaces, the interior and upper surface of the rim being smoothed to dark grey and possibly coated with a slip.
168. Flanged bowl. Medium-grey, sandy ware, with black burnished surfaces and exterior decoration which included a burnished curving line.
169. Flanged bowl. Pale grey, hard ware, with smoothed, dark grey-black surfaces.

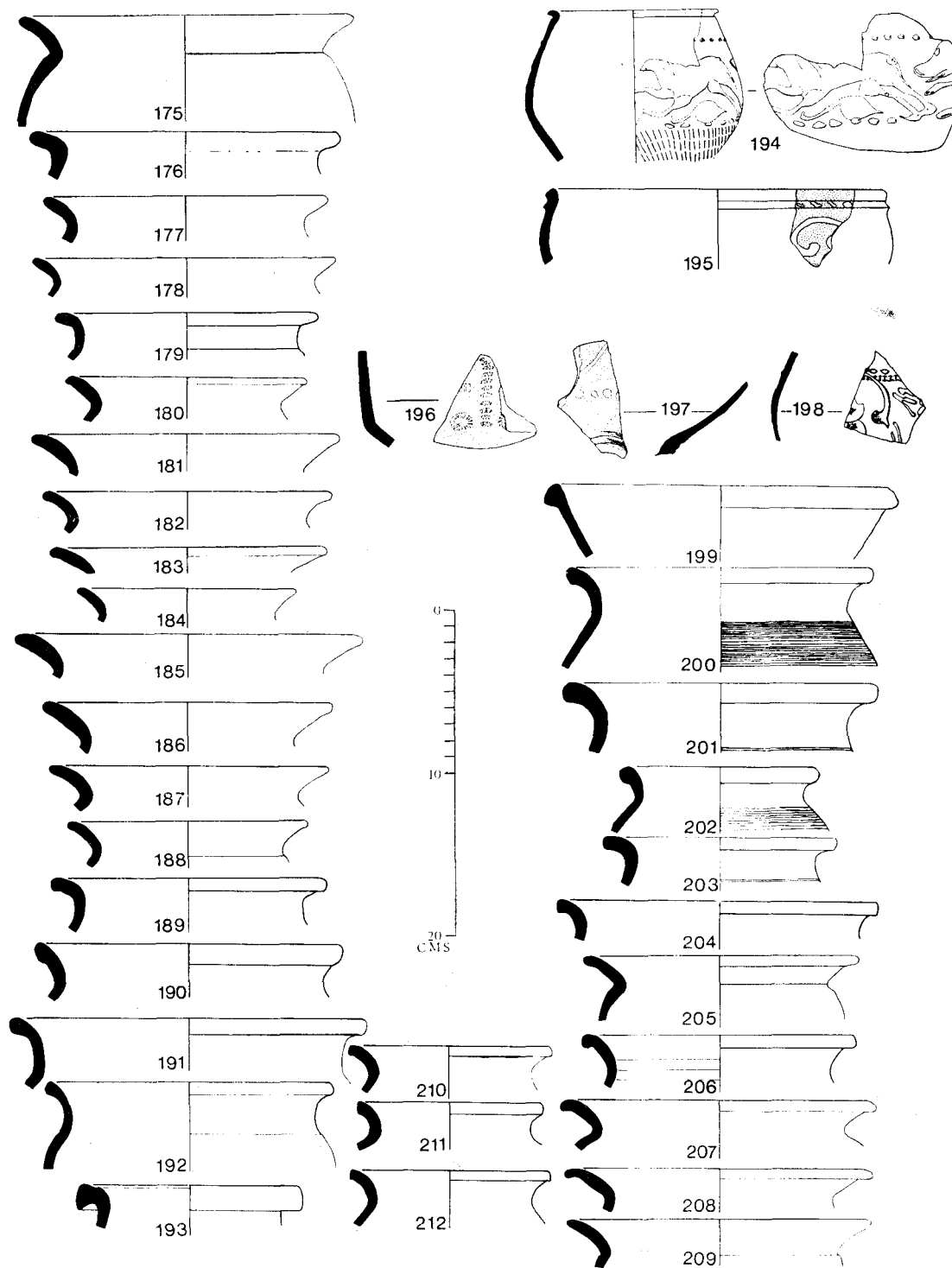


Fig. 39 Roman Palace. Coarse pottery Nos. 175-212 from deposits dating from the end of the palace ($\frac{1}{4}$)

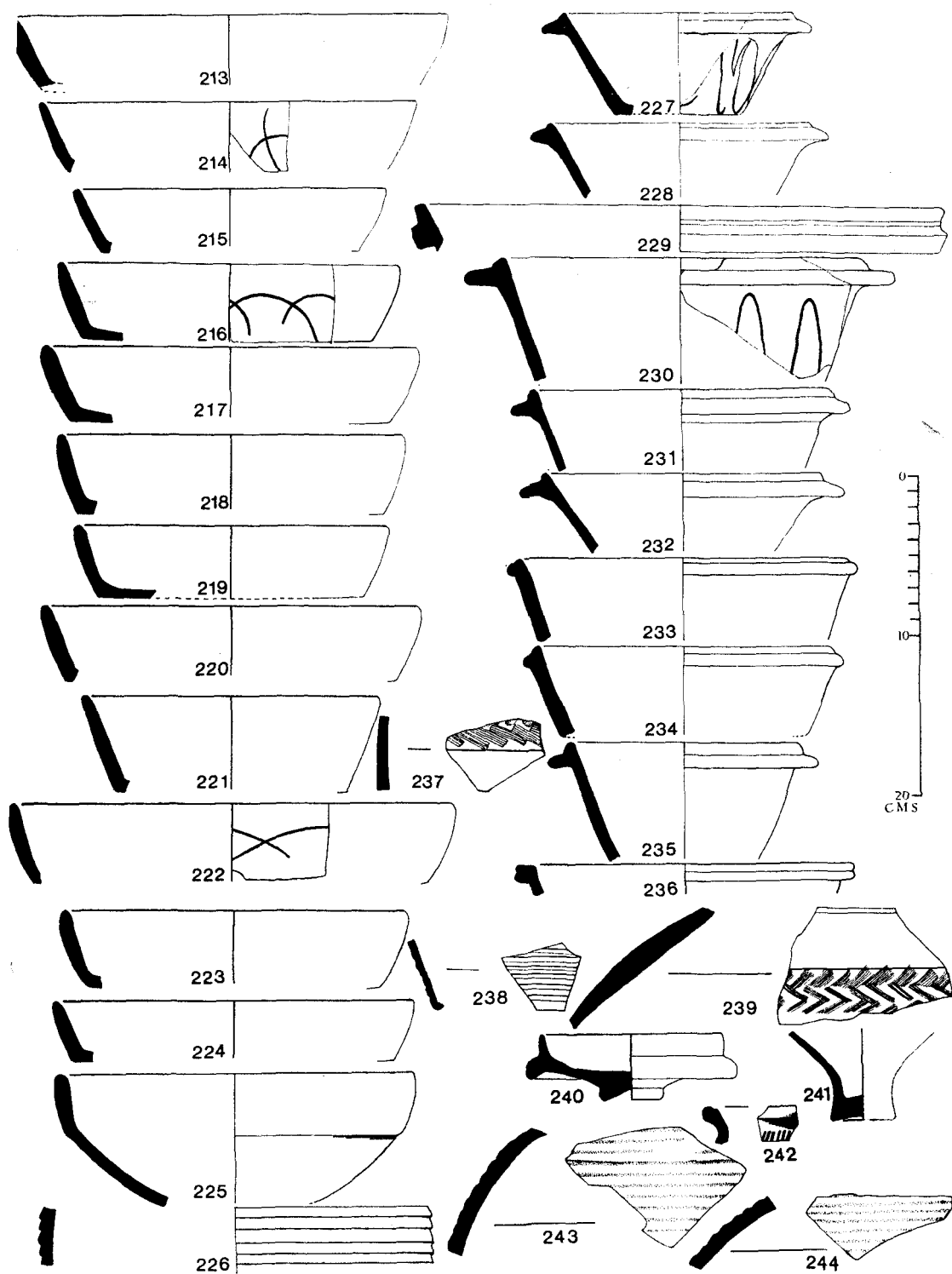


Fig. 40 Roman Palace. Coarse pottery Nos. 213-244, from deposits dating from the end of the palace ($\frac{1}{4}$)

170. Flanged bowl. Hard, fine, pale grey ware, the surfaces being dark grey and possibly coated with a slip.
171. Flanged bowl. Hard, pale grey ware with a darker grey core. The interior surface and the upper surface of the rim are covered with a black slip.
172. Flanged bowl. Hard, pale grey ware, the inner surface and the top of the rim having been coated with a dark grey slip.
173. Flanged bowl. Dark grey, sandy ware, the inner surface and top of the rim having been roughly burnished. The exterior surface is decorated with burnished curving lines.
174. Flanged bowl. Ware, burnishing and decoration similar to No. 173.

(FIG. 39):

175. Jar. Hard, pale grey, sandy ware. The exterior and upper surface of rim are burnished and coated with a medium grey slip.
176. Jar. Hard, pale grey, sandy ware, with a medium grey core.
177. Jar. Soft, dark grey, coarse, sandy ware with lumpy surfaces.
178. Jar. Hard, fine, brown ware with pale grey surfaces.
179. Necked jar. Hard, grey ware, with burnished exterior and top of rim. Cordon at base of neck. This is a Flavian type.
180. Jar. Pale grey, hard ware. Top of rim is burnished; also the base of the rim on the exterior.
181. Jar. Hard, pale grey ware, with medium grey slip on upper surface of rim.
182. Jar. Medium grey, hard, sandy ware with black surfaces. The upper surface of the rim is coated with a black slip.
183. Jar. Pale grey, sandy ware, with black burnished surfaces.
184. Jar. Grey, sandy ware, burnished pale grey on exterior surfaces.
185. Jar. Dark grey, soft, sandy ware with black surfaces. Burnished black on upper surface of rim.
186. Jar. Hard, pale grey ware, with black burnish on upper surface of rim.
187. Jar. Soft, medium grey, sandy ware with black surfaces. Burnished black on upper surface of rim.
188. Jar. Hard, pale grey ware. The upper surface of rim is burnished grey.
189. Necked jar. Hard, pale grey, sandy ware.
190. Jar. Medium grey, sandy ware.
191. Necked jar. Hard, brown ware, with dark grey surfaces. The neck is decorated with three parallel black burnished lines.
192. Necked jar. Medium grey, fine, sandy ware. The outer surface is roughly burnished.
193. Jar. Pale grey, fine, sandy ware, with a burnished rim.
194. Beaker. Hard, fine, white fabric, with grey-brown slip inside and outside. The exterior surface decorated *en barbotine* with a hunting scene in which a dog is chasing, probably, a deer. Below this and just above the base is a zone of rouletting. This is probably of Antonine date; cf. Frere (1972, Fig. 122, Nos. 791-93, dated Antonine).
195. Bowl. Fine, hard, pink ware, with red colour coat on the surfaces. The exterior is decorated with cream-coloured lines, above a zone of rouletting; probably Oxford ware; cf. Cunliffe (1971, ii, Fig. 117, Type 349.1 dated late third-early fourth century).
196. Bowl. Fine, hard, pink ware with red colour coat on surfaces. Stamped and rouletted decoration on exterior. Probably Oxford ware; cf. Cunliffe (1971, ii, Fig. 117, Type 349.2 dated late third-early fourth century).
197. Bowl. Fine, hard, grey and pink ware, with external orange slip. White-painted exterior decoration.
198. Beaker. Hard, fine, pinkish-grey, Rheneish ware with grey, glossy surfaces. Decoration of rouletted lines and applied fine, white clay.
199. Bowl. Hard, fine, white ware, with orange-brown slip; cf. Chapman (1973, Fig. 10, No. 60, dated Antonine).
200. Jar. Soft, grey-brown ware with much shell grit of small size. The exterior below the neck bears a lightly combed horizontal decoration.
201. Jar. Soft, grey-brown ware with much shell grit of small size. Below the neck the exterior surface bears lightly combed horizontal grooves.
202. Necked jar. Hard, pale grey ware with lightly combed horizontal lines below neck on exterior surface.
203. Jar. Similar ware to No. 200, but with a different rim form.
204. Jar. Hard, pink ware with dark grey surfaces.
205. Jar. Fine, brown-grey ware with dark grey surfaces, the exterior below the rim and the upper surface of the rim are burnished; cf. Cunliffe (1971, ii, Fig. 119, Type 385, dated as late third-early fourth century).
206. Jar. Hard, pale pink, sandy ware, the rim burnt black.
207. Jar. Hard, grey ware, the upper surface of the rim burnt black.
208. Jar. Grey, sandy ware, the upper surface of the rim burnished black.
209. Jar. Grey, sandy ware, burnished as No. 208; cf. Cunliffe (1971, ii, Fig. 116, Type 329, dated late third-fourth century).
210. Jar. Grey, sandy ware, the lip burnt black.
211. Jar. Similar ware to No. 210.
212. Jar. Similar ware to No. 210.

(FIG. 40):

213. Dish. Grey-brown, sandy ware, with black surfaces. The inner surface is coated with a black slip.
214. Dish. Hard, grey ware with black surfaces. The inner surface is burnished, and the outer decorated with curving burnished lines.
215. Dish. Hard, grey, sandy ware, with black surfaces, the interior being burnished.
216. Dish. Sandy, grey ware with black surfaces, the interior and the rim being burnished.
217. Dish. Hard, sandy, grey ware with black surfaces, the interior being burnished.
218. Dish. Hard, sandy, dark grey ware with black surfaces, the interior being burnished black.
219. Dish. Hard, grey-brown, sandy ware with black surfaces. The interior and rim are coated with a black slip.
220. Dish. Black, sandy ware, with black surfaces, the interior having been burnished.
221. Dish. Grey, sandy ware with black surfaces, the interior having a black slip.
222. Dish. Black, sandy ware, with dark grey surfaces, the interior having a dark slip.
223. Dish. Grey-brown, sandy ware with black surfaces, the interior having a black slip.
224. Dish. Hard, grey ware with black surfaces, the interior and upper half of the exterior having a black slip.
225. Bowl. Hard, pink ware with a grey core.
226. Amphora. Hard, sandy pink ware, the exterior half being buff coloured. The exterior surface is scored with obliquely-cut grooves.
227. Flanged bowl. Pale grey, sandy ware with dark grey surfaces, the exterior being decorated with burnished curving lines. The top of the rim and the interior surface are burnished.

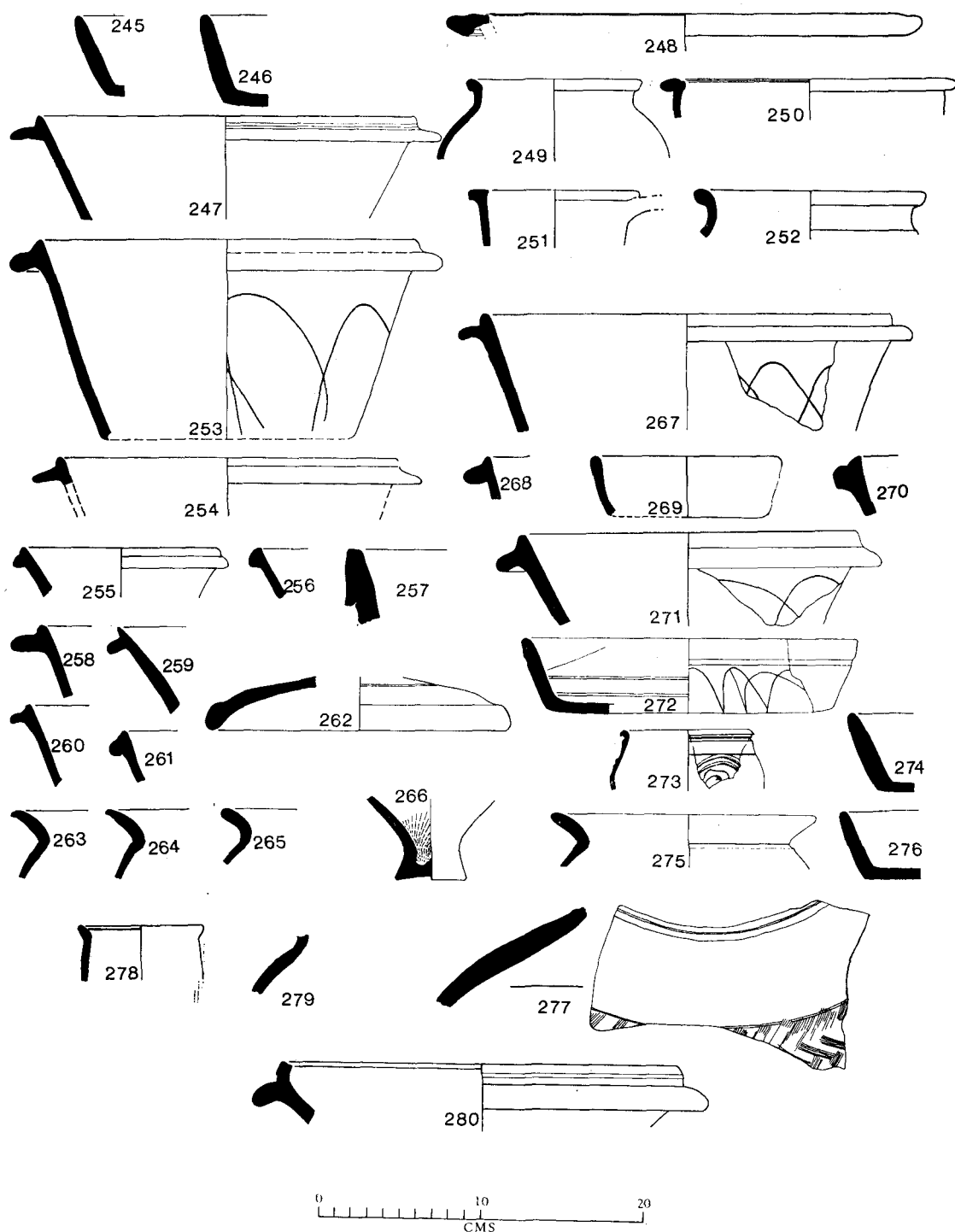


Fig. 41 Roman Palace. Coarse pottery Nos. 245-280, from deposits dating from the end of the palace ($\frac{1}{4}$)

228. Flanged bowl. Grey ware with dark surfaces.
 229. Bowl. Hard, pink ware.
 230. Flanged bowl. Pale pink ware with brown exterior. Pale grey slip on interior and top of rim. Exterior decoration of burnished curving lines.
 231. Flanged bowl. Grey-brown, sandy ware, with dark grey surfaces.
 232. Flanged bowl. Pale grey, fine, sandy ware with black surfaces, the interior and rim having been burnished.
 233. Bowl. Pale grey, fine, sandy ware with black surfaces, the interior and rim having been burnished black.
 234. Bowl. Pale grey ware, with grey exterior surface, the interior and rim having a pale grey slip. Burnt.
 235. Flanged bowl. Hard, grey, fine, sandy ware with a pale core. Dark grey surfaces, the interior and top of the rim having been burnished.
 236. Bowl. Hard, pale grey ware, with brown slip on rim.
 237. Jar. Fine, grey, sandy ware with pale grey core. The exterior has a combed decoration (see also No. 239).
 238. Barrel-like pot. Fine, hard, pinkish-grey ware with brown slip.
 239. Jar. Fine, grey, sandy ware with a pale grey core. Cordon below broken neck, and combed decoration on the body of the jar (similar ware to No. 237).
 240. Flanged bowl. Fine, sandy, pale pinkish-brown ware with a grey core, the rim bearing traces of a possible grey slip.
 241. Beaker. Castor ware. Pinkish ware with a grey core, with a brown-dark grey slip on the surface.
 242. Bowl(?). Fine, micaceous, burnt, grey ware with a red slip. Rouletting below the rim.
 243. Amphora. Hard, buff-pale yellow ware, with a sandy grit. The exterior surface has rows of horizontal grooves each cut obliquely into the surface by a flat instrument.
 244. Amphora. Hard, pink, micaceous ware with a scatter of sandy grit. The exterior surface has parallel grooves and the outer 1 mm is pale yellow-buff coloured.
- (FIG. 41):
245. Dish. Light grey, fine, sandy ware. Highly burnished internally and over rim.
 246. Dish. Light grey, fine, sandy ware. Black-burnished and slipped internally and over rim. Roughly burnished externally with a medium grey surface.
 247. Flanged bowl. Light grey, fine, sandy ware. Evenly slipped and black-burnished internally and over rim and flange. Roughly burnished externally.
 248. Reeded rim of large bowl. Pale orange, fine, sandy ware with sparse, dark orange grogging and buff/pale orange upper surface. Patch of burning below rim.
 249. Jar. Pale-medium grey, fine, sandy ware with dark grey external surface.
 250. Bowl. Pale grey, fine, sandy ware with darker grey surfaces.
 251. Flagon. Pinkish-buff, fine, hard, sandy ware with orange core. Strap-handle applied below rim.
 252. Jar. Pale grey, fine, soft, sandy ware. Patchy grey-black burnishing externally and over rim. Pale brown surface internally.
 253. Flanged bowl. Pale grey-buff, coarse, hard, sandy ware. Evenly black-burnished internally and over rim. Burnished decoration externally.
 254. Flanged bowl. Pale grey, hard, sandy ware with dark grey surfaces. Burnished internally and over upper rim-surface.
 255. Flanged bowl. Similar ware to No. 254.
 256. Bowl. Fine, buff, very hard, sandy ware. Reddish brown, glossy colour-coated surfaces.

257. Amphora. Patch, orange-grey, hard, coarse, sandy ware. Thin white slip applied to external surface.
258. Flanged bowl. Medium grey, hard, sandy ware. Burnished internally and on upper surface of rim. Rough burnishing externally.
259. Flanged bowl. Fine, hard, pale grey ware. Medium grey surfaces burnished overall.
260. Flanged bowl. Orange, fine, sandy ware with reddish-brown burnished surfaces.
261. Flanged bowl. Buff-grey, fine, hard, sandy ware. Black-burnished internally and over rim.
262. Lid. Fine, hard, grey, sandy ware. Grey-black surfaces burnished externally.
263. Jar. Pale grey, fine, slightly micaceous, sandy ware with buff-pink core in parts. Buff-grey, smooth surfaces with traces of burnishing on upper rim surface.
264. Jar. Pale grey, fine, hard, sandy ware. Slipped and highly burnished silver-grey over upper rim surface and externally.
265. Jar. Pale grey, fine, hard, sandy ware, burnt on rim. Burnished grey over upper rim-surface and externally.
266. Beaker. Pale orange, very hard ware with fine sand. Reddish-brown, glossy colour-coat externally.
267. Flanged bowl. Dark grey, sandy ware with black surfaces. Burnished internally and on upper surface of rim. Burnished decoration externally.
268. Flanged bowl. Pinkish-grey, coarse, sandy ware. Traces of grey burnished slip overall.
269. Dish. Grey, fine, hard, sandy ware. Black burnished slip internally and over rim. Burnishing externally.
270. Flanged bowl. Pale grey, fine, hard, sandy ware. Deep grey burnish internally and over upper rim. Other surfaces medium-grey.
271. Flanged bowl. Dark pinkish-grey, fine, hard, sandy ware. Black burnished and slipped internally and over upper rim-surface. Grey-black externally with burnished decoration.
272. Dish. Grey, fine, hard, sandy ware. Black slipped and burnished internally and over rim, with burnished decoration externally.
273. Beaker. Very hard, greyish-pink ware with fine sand. Dark buff finely slipped external surfaces, deep grey internally slipped surface. Applied barbotine decoration. Burnt (?) Castor (?) ware.
274. Dish. Pale grey, coarse, hard, sandy ware. Black burnished slip internally. Deep grey surfaces externally.
275. Jar. Dark grey-buff, hard, sandy ware. Black burnished on rim and external surfaces.
276. Dish. Pale grey, fine, hard, sandy ware, burnt in patches. Traces of burnished slip internally and over rim. Burnished linear decoration underneath.
277. Storage jar. Pale grey, hard, fine, sandy ware with medium grey external surface. Combed decoration on body.
278. Beaker. Pale orange, soft, fine ware, with reddish-brown surfaces. Upper rim and external surface finely burnished.
279. Jar. Coarsely gritted, hard, grey ware. Hand-made. Lumpy surfaces, patchy buff-orange to grey with rough external burnishing. (?) Saxon type.
280. Mortarium. Creamy-buff, hard, sandy ware. Buff-orange surfaces with coarse flint grits internally.

Dating: This group contains jars and bowls of types which can be paralleled elsewhere in fourth century deposits (e.g. Sheldon 1971), a date which is confirmed by the inclusion of red colour-coated ware probably from the Oxford region. The types generally do not look too developed, and the dumping probably occurred during the fourth century.

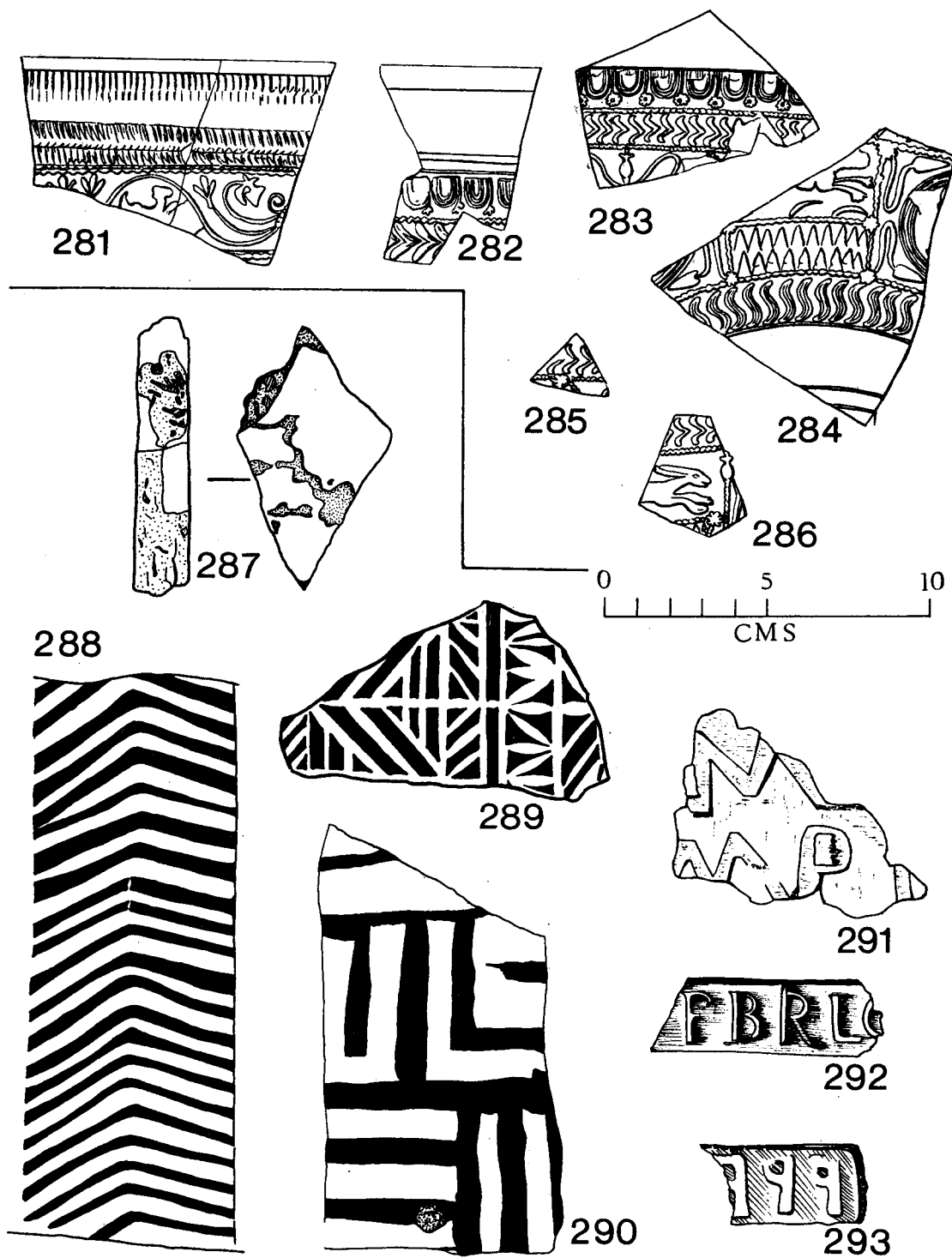


Fig. 42 Roman Palace. Samian ware Nos. 281-286. Building materials and stamped inscriptions Nos. 287-293 ($\frac{1}{2}$)

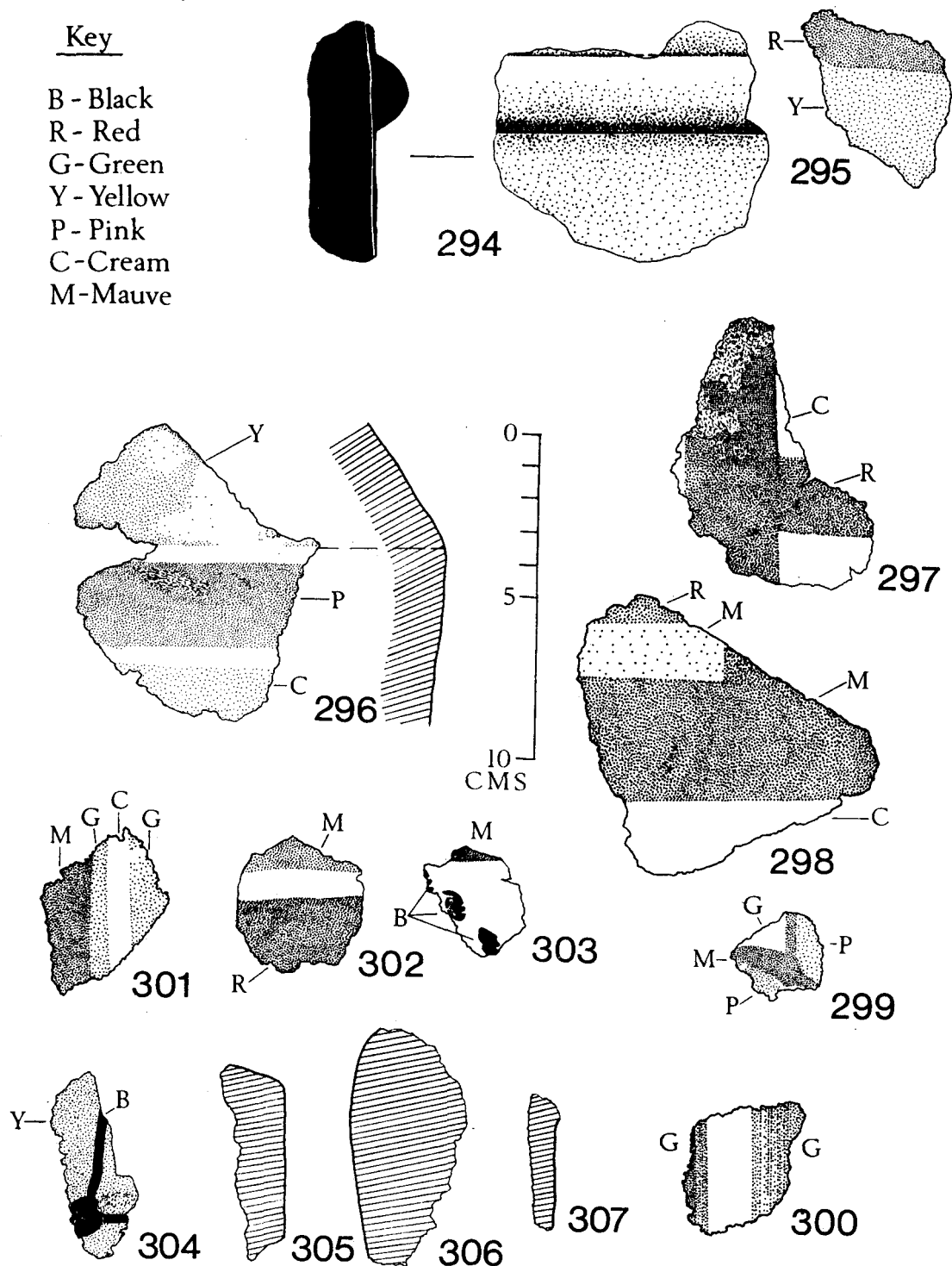


Fig. 43 Roman Palace. Wall decoration Nos. 294-307, stucco (294), painted wall plaster (295-304), and plaster mouldings (305-307) ($\frac{1}{2}$)

SAMIAN WARE (Fig. 42):

E.R. 964 (Pit 1, Fig. 5):

SOUTH GAULISH WARES:

DECORATED:

281. FORM 29. Portion of rim, with running scroll and dog in upper frieze; cf. Oswald (1936, Type 1970). Moniliform binding. Early Flavian.
Eight other fragments of Form 29, all Flavian and earlier.
282. FORM 37. Portion of rim; double ovolo with trifid tongue, wavy line below; below this is a zone of "double leaves". Mr. B. R. Hartley states that this particular ovolo does not appear in the Pompeian hoard of A.D. 79, but is found at Inchtuthill, A.D. 83-90. It is likely, therefore, to be after A.D. 80.
283. Portion near rim; double ovolo with tongue ending in eight-pointed rosette, with hollow centre; zone of debased "double leaves" below, between beaded lines; below this in central zone is formal device with loops and terminal bud, probably alternating with panels. Mr. B. R. Hartley states that this ovolo with large rosette is common to the Pompeian hoard of A.D. 79 and Agricolan fortresses, including Newstead and Inchtuthill. It should, therefore, be dated A.D. 75-85.
284. Portion near base, apparently of same bowl, has in central register panel with running animal above panel of "arrow-heads", alternating with roundels; below is a frieze of S-shaped gadroons. Early Flavian.
285. Small piece of frieze of debased "double-leaves" with rosette on cable below. From same bowl. Flavian. Seven other fragments of Drag. 29; three of Drag. 37; seven of Drag. 29 or 37; one of Drag. 30 or 37; one of Drag. 35.
286. Portion of central zone with hare running to right in panel defined by cable with terminal bud, rosette near corner below; above is frieze of debased "double-leaves". From same bowl as No. 283.

UNDECORATED (not illustrated):

Plain forms include Drag. 18 (four, possibly seven); Drag. 27 (three, possibly five); Drag. 33 (two). None of these seem to be later than the Flavian period.

CENTRAL GAULISH:

There is one sherd of early Lezoux ware, featureless but possibly part of a bowl, with a light buff body and a brilliant orange glossy surface, comparable in quality with the best South Gaulish samian.

BUILDING MATERIALS (Fig. 42):

287. Diamond-shaped white stone element of *opus sectile*. Pink and white mortar adhering to the stone. Although found in a deposit (E.R. 792) post-dating the Roman palace (p. 75) this item is likely to be of early Roman date, probably even pre-dating the palace itself; cf. Cunliffe (1971, ii, 34-35).
288. Roller design impressed into a red flue tile. Note the flaw in two adjacent V hollows. This was found in the rubble filling in the hypocaust of Room A in the post-palace building in Area 2 (p. 75); also Fig. 11, Section 4, Layer 2). This is Lowther's patterned flue tile Group 9, Die No. 36, examples of which have been found at Verulamium and Elstree; Lowther (1948, 17, 35).
289. Roller design impressed into a fragmentary flue tile. Found in the fourth century dumped filling (E.R. 976) of Room 15 (p. 77). This is Lowther's patterned flue tile Group 1, and a variant of Die No. 3 which has also been recorded in London and Silchester; Lowther (1948, 17, 25).

290. Roller design impressed into a fragmentary flue tile. Found in the fourth century dumped filling (E.R. 976) of Room 14 (p. 77). This is Lowther's patterned flue tile Group 6, and is similar to Die No. 24 which is found at Cobham in Surrey, Angmering and High Down in Sussex; Lowther (1948, 17, 31).

291. Stamped, ligatured inscription on a fragment of red tile which Mr. R. P. Wright has identified as follows:

[D] MVAL

[D] MP

and it is a variant of a similar stamp found at Bishops-gate and on Treasury Green in London, though the letters on the tile from the Roman Palace are narrower. The tile was found in the general fourth century dumped filling (E.R. 974) of Room 14 (p. 77).

292. Stamped inscription on a red brick, which reads: [P]·P·BRI·LO[N]. Found with a large group of Flavian pottery (E.R. 1121) in a deposit in Room 34, which seems to have been disturbed but little contaminated during the early medieval period (p. 16). It is highly probable, therefore, that the stamped tile dates from the first century A.D.
293. Stamped retrograde inscription on a red brick, which reads P P B [R LON]. This broken tile was found re-used in a rough hearth in Room 14 (p. 77). White mortar is adhering to the tile and, as the hearth was not mortared, it is clear that the mortar relates to the former use of the tile.

WALL DECORATION (Fig. 43):

STUCCO:

294. Portion of moulded stucco, found in one of the dumped deposits (E.R. 723) in the great pool, Feature 46, the deposition of which presumably dates from the end of the palace phase (p. 76). The stucco moulding was laid on coarse, white, sandy mortar with an even surface, the surface layer and the rib moulding being formed of a very fine, white cement. This was covered with a thin layer of white paint, the brush strokes following the moulded rib. Similarly moulded stucco has been found in the audience chamber of the Roman palace at Fishbourne; Cunliffe (1971, ii, Fig. 26, No. 4).

PAINTED WALL PLASTER:

Small fragments of painted wall plaster were found, few of which give any significant indication of the interior decoration of the palace, if that is the building from which they are derived. Nevertheless, a sample is illustrated here as an indication of the decorative schemes.

295. Red zone adjoining a dirty yellow zone (E.R. 975). Found in the fourth century dumped filling of Room 14 in a deposit overlying a rough tile hearth (Fig. 19, Section 12, Layer 3).
296. A carinated plaster moulding (see drawn section), with a white line following the ridge. On one side a yellow surface, and on the other a secondary pointing of a pale pinkish-mauve zone is separated from a cream-coloured zone by a thin, white line, all of which has been painted over a yellow primary colouring (E.R. 895). Found re-used in the curved wall forming the north side of Room 29 in the south wing of the palace (Fig. 21).
297. Two broad, red bands on a white background, suggesting a wall decoration of panels framed by red borders (E.R. 674). Found in the filling of the robbed wall of the multi-angular Room "A" of the post-palace building in Area 2 (see Fig. 11, Section 4, Layer 5; and Fig. 32).

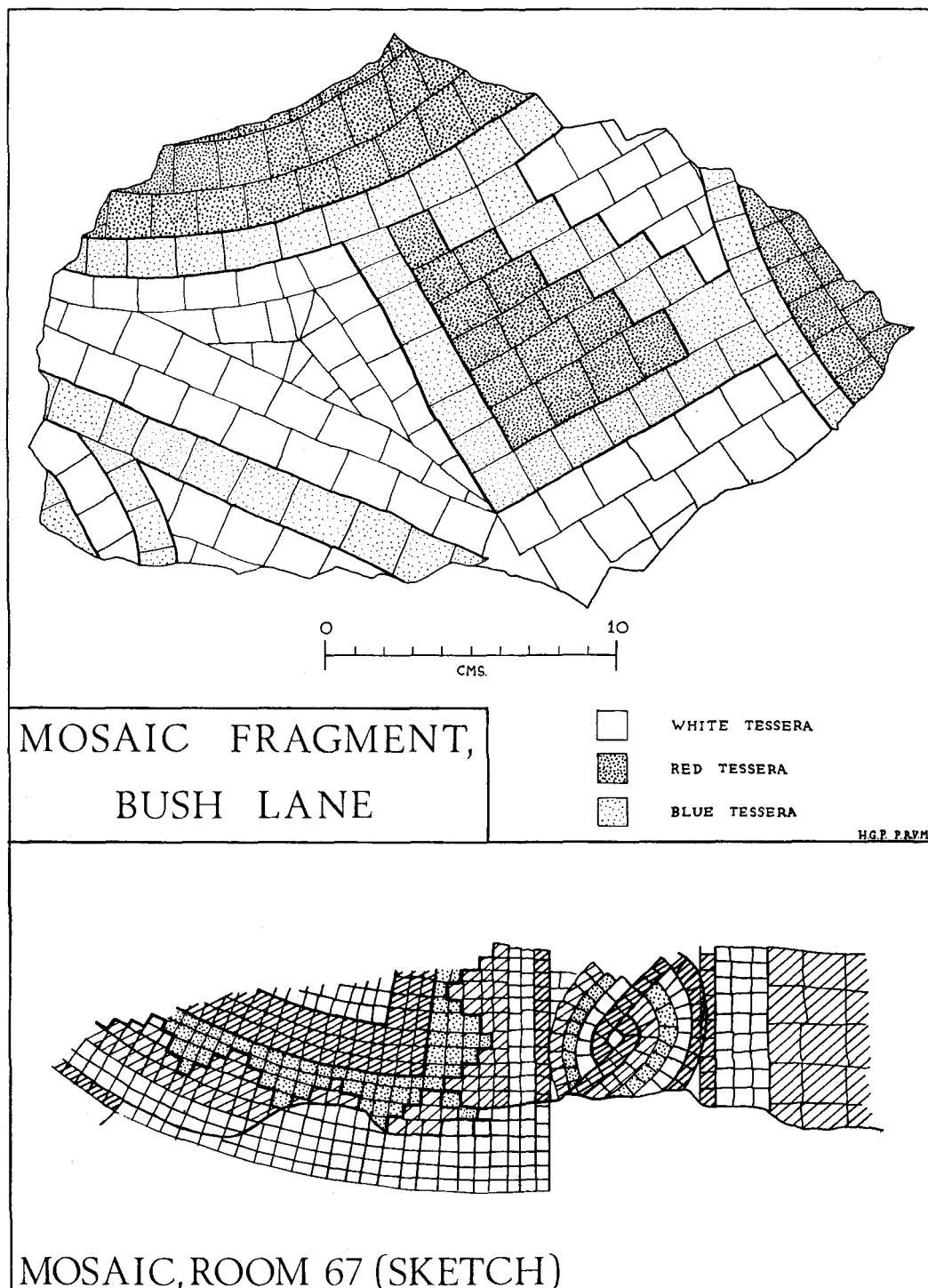


Fig. 44 Roman Palace. Mosaic fragment found in Bush Lane in the seventeenth century (p. 99), and sketch of mosaic fragment found in room 67 (Fig. 26 and Plate 4)

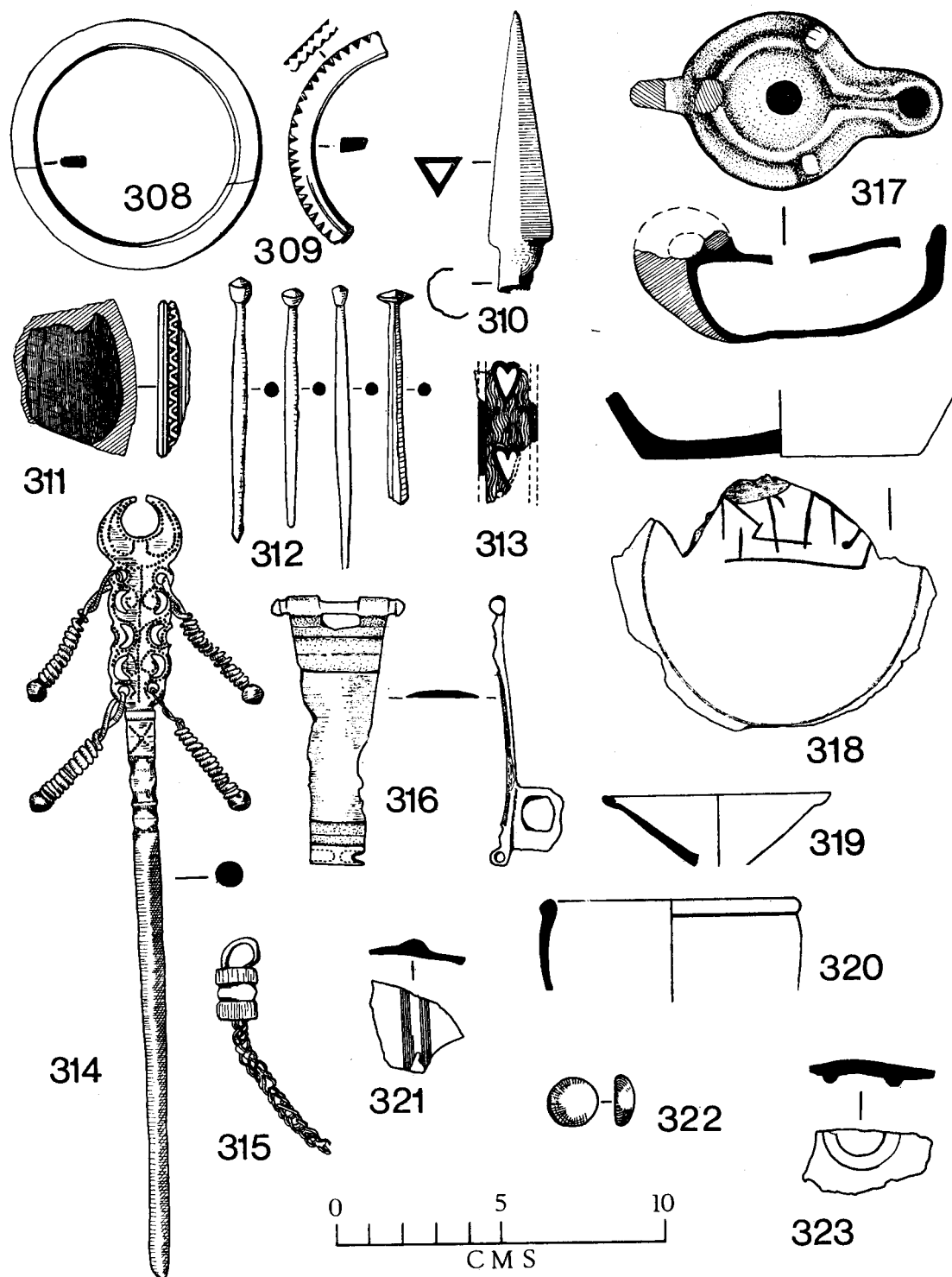


Fig. 45 Roman Palace. Miscellaneous small finds, Nos. 308-323, including glass (319-323) ($\frac{1}{2}$) except 314-315 ($\frac{1}{1}$)

298. A broad, mauve band with a zone extending at a right-angle. On one side of the band a thin, mauve wash over a white ground beyond which lies a red zone; on the other side a cream colour painted over mauve (E.R. 673). Found in the rubble filling of the hypocaust of the post-palace building, Room "A", in Area 2 (Fig. 11, Section 4, Layer 2).
299. A green ground on which pink and mauve zones have been painted (E.R. 673). Found in the same deposit as No. 298.
300. A white ground on which two pale lime green zones have been painted (E.R. 673). Found in the same deposit as No. 298.
301. A deep mauve ground on which has been painted a muddy, pale green zone, and on that a thin, white line (E.R. 673). Found in the same deposit as No. 298.
302. A white ground on which a pale mauve zone and a red zone have been painted (E.R. 976). Found overlying the mortar floor of Room 14 (Fig. 19, Section 12, Layer 12).
303. A white ground with three black-painted splashes, and the edge of a mauve zone (E.R. 976). Found in the same deposit as No. 302.
304. The corner of a decorative panel delineated in black on a yellow ground (E.R. 975). Found in the same deposit as No. 295.

PLASTER MOULDINGS:

305. An acute-angled corner, the angle painted red with an adjacent white and green zone on one side (E.R. 996). Found in the same deposit as No. 302.
306. A rounded moulding painted white (E.R. 895). Found in the same structure as No. 296, though possibly not re-used.
307. A right-angled corner, coated with red which obscures an earlier yellow colouring (E.R. 976). Found in the same deposit as No. 302.

MOSAIC FRAGMENT, FOUND IN BUSH LANE ON UNLOCATED SITE (Fig. 44):

Details of a fragment of a Roman mosaic found long ago are recorded in Aubrey's manuscript volume *Monumenta II* in the Bodleian Library (MS. Top Gen. C.25, p. 108); and grateful thanks are extended to Julian Munby and Dr. Martin Henig for sending details, including a copy of the manuscript. The fragment is re-drawn here for reproduction (Fig. 44). The handwritten annotation which accompanies the original drawing is as follows:

"In London in Bush-Lane, about twenty foot deep, was found this pavement of opus tessellatum, which was bedded in playster, which lay on large square bricks, equilaterally square; and that was bedded in a chalke mortar. Two pieces whereof are preserved in the Repository at Gresham-College, from whence I took this draught: first of the bigness: but whereas the partition black; there they are white . . ."

"The red Tessella are little pieces of Brick. The blew Tessella are little pieces of blew Lyass: which should have been coloured with a dirty blew, as Indico. The white Tessella, little pieces of hard white marle."

If the depth of 20 ft (6.1 m) is correct then this will rule out the possibility of the pavement having been found near Cannon Street, and, indeed on this basis, it could not have been significantly north of Scott's Yard.

MISCELLANEOUS OBJECTS (Fig. 45):

308. Shale bracelet. From the fourth century dumped deposits (E.R. 974) in Room 14 (Museum accession No. 24797).

309. Jet bracelet. Unstratified Roman period from the palace site (Museum accession No. 21826).
310. Iron pilum head(?) triangular in section and socketed at one end, probably for a wooden shaft. Unstratified Roman period from the palace area (Museum accession No. 21827).
311. Jet plate or dish with an incised internal decoration, and an incised external decoration just above the base. Found in the fourth century dumped deposits in Room 14 (E.R. 976) (Museum accession No. 24854).
312. Four bone pins, found in the fourth century dumped filling of Room 14 (E.R. 976) and Room 13 (E.R. 977). From left to right the deposits in which they were found are: E.R. 977, E.R. 976, E.R. 977.
313. Knife handle(?), formed from a central iron plate 2 mm thick, which has been pierced to take two hollow heart-shaped, bronze decorative fittings, and covered between the hearts with plates of horn riveted to the central iron plate. Found in the fourth century dump in Room 15 (E.R. 977).
314. Pin of bronze, decorated with an openwork head and four hanging pendants. This was found unstratified in the test hole which disclosed the timber structure Feature 50 (Fig. 29) (Museum accession No. 21664). Similar pins have been found in London in the past though not from a dated context; (cf. *London in Roman Times*, Fig. 32, No. 3 for a pin found at Poultry; and *Guide to the Antiquities of Roman London*, Fig. 14, No. 13, for a pin found in Walbrook).
315. Bronze chain, 0.274 m long, with a ring terminal at one end, the other end being broken. Roman, found unstratified in the palace area in Upper Thames Street (Museum accession No. 21236).
316. Decorative bronze hinged lock fitting, possibly for a box. Found in the grey, loamy soil, overlying the natural gravel, which was cut by the east foundation of the corridor, Room 13. This, therefore, predates the palace and is of first century date.
317. Lamp. Fine, pale yellow ware with a light brown slip. Unstratified find from Upper Thames Street in the palace region. This is Type 111a in the London Museum type series (*London in Roman Times*, Fig. 15) and is dated to the Flavian period (Museum accession No. 21679).
318. Base of a soft, dark grey ware cooking pot, on the underside of which is the *graffito* identified by Mr. R. P. Wright; Wright (1967, 210), as:

ARIIA

- Found unstratified on the Dyers Arms site (E.R. 1123) (p. 14). Probably first century A.D.
319. Glass. Rim or base of clear glass vessel, with folded lip. The glass surface is crazed into roughly square or rectangular segments. Found in Pit 2 (E.R. 962) of first century date (p. 13).
 320. Glass. Rim of straight-sided bowl. Colourless, somewhat milky glass; cf. Tatton-Brown (1974, Fig. 35, No. 8). Found in Pit 2 (E.R. 962), of first century date (p. 13).
 321. Glass. Side of green glass, pillar-moulded bowl. Found in the fourth century dumped filling of Room 14 (E.R. 976), though the glass type is characteristic of the late first and early second century. (p. 77).
 322. Glass. Small, pale blue glass counter. Found in the grey-black silt (E.R. 724) immediately overlying the concrete floor of the great pool (Feature 46, p. 76).
 323. Glass. Foot ring and flat base of a clear glass vessel. Found in the fourth century dumped filling of Room 14 (E.R. 976) (p. 77).

THE GOLDSMITHS DEBRIS (Fig. 46)

Prior to the construction of the east wing of the Roman palace (Area 4) a goldsmith seems to have set up a workshop in the area. No structural remains of this were found, apart from the timber-lined Well 2 (p. 12) and Pit 1 (p. 12), the pottery from both indicating a date in the second half of the Flavian period for their filling in (p. 85). Thanks are extended to Miss Mavis Bimson of the British Museum Laboratory who examined the goldsmith's debris and from whose notes this description has been written.

Part of the filling of Pit 1 (E.R. 964) consisted of a layer of wood ash, and in this were found most of the objects connected with gold working. These consisted of parts of two crucibles and three crucible lids. One of the crucibles (Fig. 46, No. 330) was examined at the British Museum Laboratory, and was found to be impregnated with gold. The other (Fig. 46, No. 324) had clear traces of gold on its inner surface. Large crucibles and the three lids (Fig. 46, Nos. 327, 328 and 330) were partly covered with traces of the baked clay luting which had originally sealed the lid to the crucible making a gas-tight joint. On these fragments of baked sealing clay were found impressions of a mould with representations in relief of a lion facing a boar within a rectangular panel measuring 20 mm by 69 mm (Fig. 46, No. 332). Another mould was represented by a more fragmentary impression representing a double fish tail, probably of a hippocampus (Fig. 46, No. 336). These moulds show detail of a high quality and may well have been for the production of decorative plaques in precious metal. Their use on the clay luting may have been for amusement in an idle moment, or, as they were mostly located at the junction of the lid and crucible, they are more likely to have served a practical purpose as a seal to protect the refining crucible with its valuable contents from pilferers.

The method of refining was one which was still in use in the sixteenth century, and is described by Ercker in his *Treatise on Ores and Assaying*. A layer of brick-dust or similar absorbent material called "cement" was placed on the bottom of the crucible, and on this was laid the gold which was to be refined. A further layer of "cement" was placed over and around the gold.

Additional alternative layers of gold and "cement" could be laid above this. Organic acids such as urine were then added, and the lid was hermetically sealed to the crucible by a clay luting. The crucible was then heated for a considerable time, during which the impurities present in the gold were dissolved by the acid fumes and were absorbed by the "cement", leaving pure refined gold. The small crucible (Fig. 46, No. 324) does not have any trace of luting, and was most likely used for melting the refined gold.

OBJECTS SHOWN IN FIG. 46:

324. Small cup-shaped crucible with traces of gold on its interior surface (Museum accession No. 24503).
325. Fragmentary top of a crucible lid in which a hole has been plugged by the clay luting. The clay is burnt pink and contains the impressions of fine blades of grass or similar plant material (Museum accession No. 24511).
326. Lid of crucible, the top of which is missing (it was not No. 325). Burnt to a pale mauve-pink colour, particularly internally, and the exterior surface bearing traces of brown-buff clay luting which has the impressions of grass or similar plant material (Museum accession No. 24510).
327. Crucible, burnt to a mottled dark mauve colour on the external surface, while the interior is burnt to a pale pinkish-mauve. There is a trace of baked clay luting on the external surface of the rim (Museum accession No. 24507).
328. Crucible, similar ware to No. 327, but with rather more baked clay luting on the external surface. The clay contains the impression of much grass or similar plant material (Museum accession No. 24508).
329. Lid of crucible which is a pale mauve-pink colour and internally the surface is crazed by heat. The exterior surface has portions of clay luting with the impression of grass or similar plant material (Museum accession No. 24509).
330. Crucible, similar to No. 327, but with much baked luting adhering to the external surface, the clay containing grass or similar plant material. There are traces of gold on the lower internal surface of the crucible (Museum accession No. 24506).
331. Luting of baked clay mixed with grass or similar plant material. This is one of two pieces found in Pit 1, and each bears the external impression of the crucible and also the form of the crucible lid. The fragments show that the luting was placed in position around the crucible and its lid in two stages. Firstly, the body of the crucible below the rim was covered with a layer of clay luting its thickness being equal to the projecting rim. And, secondly, another layer of luting was applied to the outside of the crucible and up and over the lid. The final stage was the impressing of a series of rectangular moulds around the junction of the crucible and the lid (see also Plate 6, 7), the individual moulds being shown in Nos. 332-36 (Museum accession Nos. 24514, 24515).
332. Stamp impression of a lion (right) facing a boar.
333. Stamp impression of a boar probably facing a lion.
334. Stamp impression of a lion probably facing a boar. This is a different stamp from Nos. 332 and 335, as the lion's tail is shown in a straighter line.
335. Stamp impression of a lion, probably facing a boar.
336. Stamp impression probably of a hippocampus.

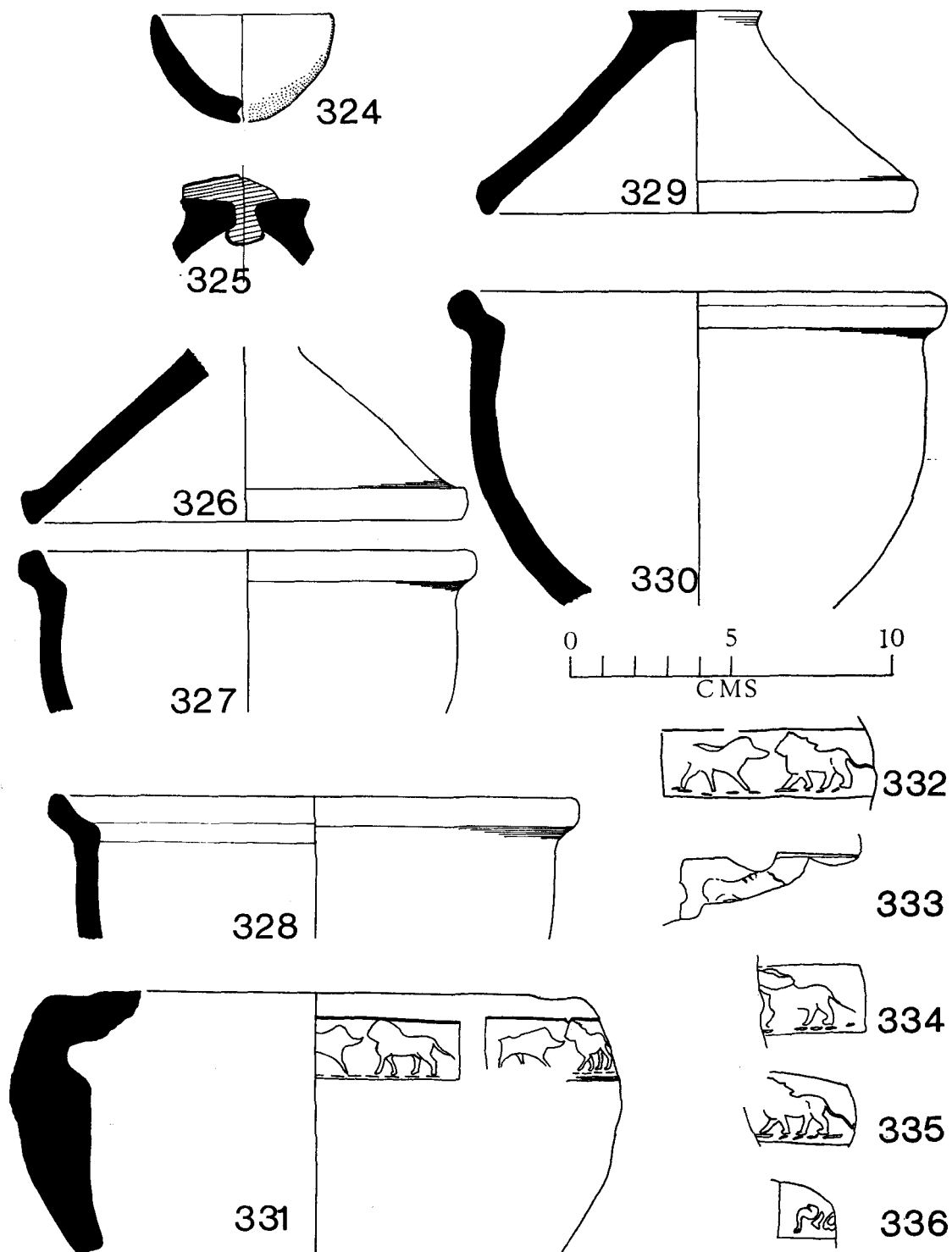


Fig. 46 Roman Palace. Debris from goldsmith's workshop of Flavian period, from Area 4, Pit 1 ($\frac{1}{2}$)

FINDS REFERENCES

- BUSHE-FOX (1928):
J. P. Bushe-Fox *Second Report on the Excavation of the Roman Fort at Richborough, Kent* (Research Reports of the Society of Antiquaries of London, 7) (London, 1928).
- CHAPMAN (1973):
H. Chapman and T. Johnson "Excavations at Aldgate and Bush Lane House, 1972" *Trans. London Middlesex Archaeol. Soc.*, 24 (1973) 1-73.
- CUNLIFFE (1971):
B. Cunliffe *Excavations at Fishbourne, 1961-69* (Research Reports of the Society of Antiquaries of London, 26-27) (London, 1971).
- ERCKER:
Lazarus Ercker *Treatise on Ores and Assaying* (1580), transl. A. G. Sisco and C. S. Smith (Chicago, 1951).
- FRERE (1972):
S. S. Frere *Verulamium Excavations* (Research Reports of the Society of Antiquaries of London, 28) (London 1972).
- GUIDE TO THE ANTIQUITIES OF ROMAN BRITAIN:
Guide to the Antiquities of Roman Britain (British Museum, London, 1951).
- KENYON (1959):
K. M. Kenyon *Excavations in Southwark* (Research Papers of the Surrey Archaeological Society, 5) (London, 1959).
- LONDON IN ROMAN TIMES:
London in Roman Times (London Museum, London, 1946).
- LOWTHER (1948):
A. Lowther *A Study of the Patterns on Roman Flue Tiles and their Distribution* (Research Papers of the Surrey Archaeological Society, 1) (London, 1948).
- OSWALD (1936):
F. Oswald *Index of Figure Types on Terra Sigillata*, (Liverpool, 1936).
- SHELDON (1971):
H. Sheldon "Excavations at Lefevre Road, Old Ford, E.3" *Trans London Middlesex Archaeol Soc.* 21, Pt. 1 (1971) 42-77.
- TATTON-BROWN (1974):
T. Tatton-Brown "Excavations at the Custom House Site, 1973" *Trans London Middlesex Archaeol Soc* 25 (1974) 117-219.
- WRIGHT (1967):
R. P. Wright "Inscriptions in Roman Britain, 1966" *J Roman Stud* 57 (1967) 210.

The Society is grateful to both the Department of the Environment and the Museum of London for help towards the cost of printing this report.

EXCAVATIONS AT THE CUSTOM HOUSE SITE, CITY OF LONDON, 1973 - PART 2

TIM TATTON-BROWN

INTRODUCTION:

In this second part of the Custom House report the remainder of the finds that were not published last year are included together with an assessment of all the medieval aspects of the site. The bulk of the objects being published this year are from the medieval levels on the site since by far the largest number of finds from the site are from the great dumps of rubbish behind the timber waterfronts. The largest group of finds is the medieval pottery, and it has taken Mr. Thorn a year and a half's concentrated work to prepare the most interesting ceramic material for publication. Space does not permit the complete publication of all this medieval material and so the pottery, leather, and bone reports are all necessarily selective.

The report begins with an assessment of the dating and the nature of the medieval rubbish deposits, and this is followed by a brief section in which an attempt is made to relate the Custom House site to its surrounding area in the south-east corner of the City of London and in particular to the changing medieval waterfront and to the Tower of London, which dominates this part of the City. Finally the structure of the medieval Custom House and its successors are discussed.

THE MEDIEVAL DEPOSITS AND THEIR DATING:

It now seems clear that from sometime in the late thirteenth century a long series of rough timber revetments was built on the foreshore below the "Wool", "Stone" and other quays (as well as on other parts of the foreshore in the City, as more recent excavations have shown). These were to reclaim more land south of Thames Street, though in the first instance they were used as repositories for rubbish. From contemporary documents we know that during the fourteenth century the "city fathers" were already trying to stop dumping of rubbish in the middle of the streets, and these riverside structures would be ideal for a general cleaning-up of streets that may have taken place during this time.

Medieval levels on most sites in Britain, apart from a few exceptional cases, are notoriously difficult to date and the Custom House site was no exception. However, we did have one advantage, which only waterlogged sites can provide, and that is that there were at least four independent ways of obtaining a chronology. The main methods were ceramic, dendrochronological, documentary and to a lesser extent carpentry joints and small finds. Despite this, no particular method applied very closely to the site. Each method will now be discussed in turn.

The use of pottery for dating is of course one of the oldest methods in archaeology, but at this site it is probably the least useful. This is mainly because it is quite clear that a great deal of the pottery, found mixed up in the dumps behind the timber waterfronts, had been lying around for a long time before being put there. Much of it must have been cleared out from elsewhere and this is reflected in the large amounts of residual sherds. Only the very latest sherds, which are few in number, are going to give us any useful date. The other great difficulty is that it is not yet possible to give close dates to any of this medieval pottery, even the imports. Many more precisely dated closed groups will be needed before this is possible. One thing which is fairly clear from the pottery is the great similarity in content

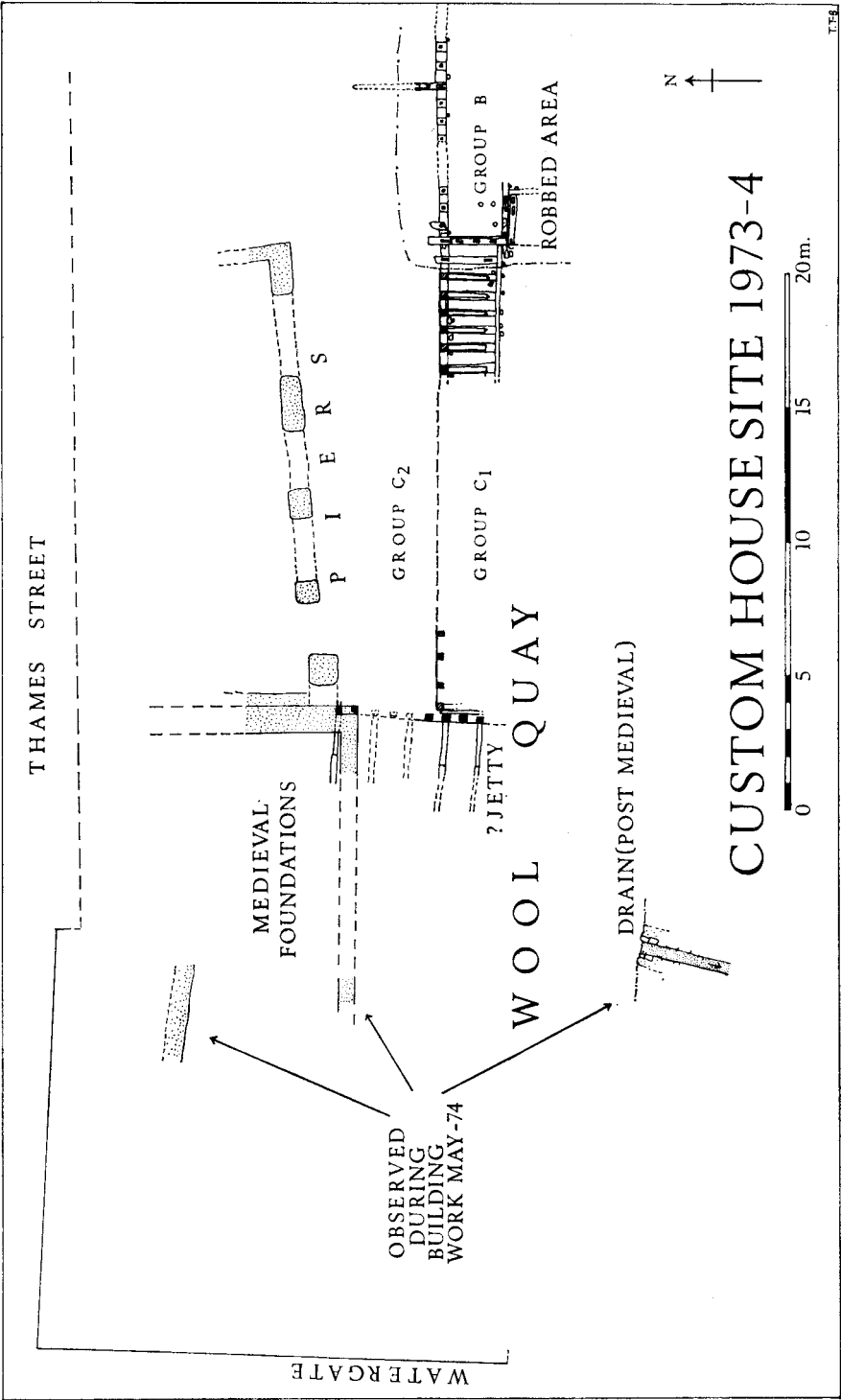


Fig. 1. Custom House Site. Plan of medieval features and stratigraphical groups on the Wool Quay

between all the main stratified groups on the site (*i.e.* Groups A, B, C and D). In the case of groups A and B this is to be expected because they are cut into group C and therefore much of the material is redeposited. From the pottery therefore it is only possible to give a rough date to the groups C and D and this is perhaps some time within the fourteenth century. It is interesting to note that the foreshore gravels (Group D) have roughly the same range of ceramic material as the overlying rubbish deposits which are built up behind the timber quays (Group C).

Our second method of dating, dendrochronology, should be one of the most accurate, particularly as a whole series of mean-curves are now becoming available for the later medieval period. Unfortunately, to be really accurate, one needs a large number of specimens from the same structure (not reused timber) of slow-grown oaks with sapwood surviving on the outside. Of the specimens taken from the timber waterfronts on the Custom House site all except for one were fairly fast-grown and only short curves could be obtained. The one slow-grown specimen, as well as being unusual in its fast and then slow growth, lacked all its outer rings. However, a tentative date some time in the middle of the fourteenth century is possible (see Dr. Fletcher's report below p. 169).

Carpentry joints in timber structures of the medieval period are now being studied chronologically thanks to the pioneering work of Cecil Hewett. Exact dates are not of course possible, but Mr. Hewett has shown how certain joints evolved at different times and so a broad dating is possible. Unfortunately, the fairly rough carpentry joints used in the waterfronts are no real help for dating, but what can be said has been by Mr. Hewett (see below p. 115). Again a date in the fourteenth century would be acceptable.

The other finds (leather, floor tiles, small objects, etc.) are all as yet almost impossible to date closely, but a date in the fourteenth century is also probable for many of the objects.

Finally we come to documentary evidence. The actual documentary material for the site and the immediate neighbourhood has been assessed by Tony Dyson (see below p. 110). When the area is considered as a whole and both archaeological and topographical evidence is used as well, a much clearer picture can be obtained, which is summarized below. The most important individual documents relating to the site and the Custom House in particular were discussed in last year's report.¹ There are also three interesting documents of 1335, 1338 and 1349, clearly mentioning houses, presumably of timber, on Wool Wharf, Bayning's Quay and Stone Wharf respectively (see Fig. 2).² So far these are the earliest references to actual buildings being erected south of Thames Street on one of the quays in this area. As will be seen from the summary given below, one of the most important aspects of the topography of the area is the "pushing out" of new quays into the river from Thames Street, which appears to have started in the late thirteenth century when so much was taking place at the Tower of London. This is followed in the first half of the fourteenth century by the consolidation of these quays and then by the building of houses on them. Then in 1338 came the order to erect "brattices of boards" along the riverside between London Bridge and the Tower (see below). At the same time the ownership of property on both sides of Thames Street by one person starts to break up. Moreover, whereas in the late thirteenth century one man owned a very large area of waterfront, by the later fourteenth century a whole series of small holders were in possession of tiny plots of land on both sides of Thames Street. From the documentary evidence it therefore seems very likely that the braced timber structures on the Custom House site date from the second third of the fourteenth century.

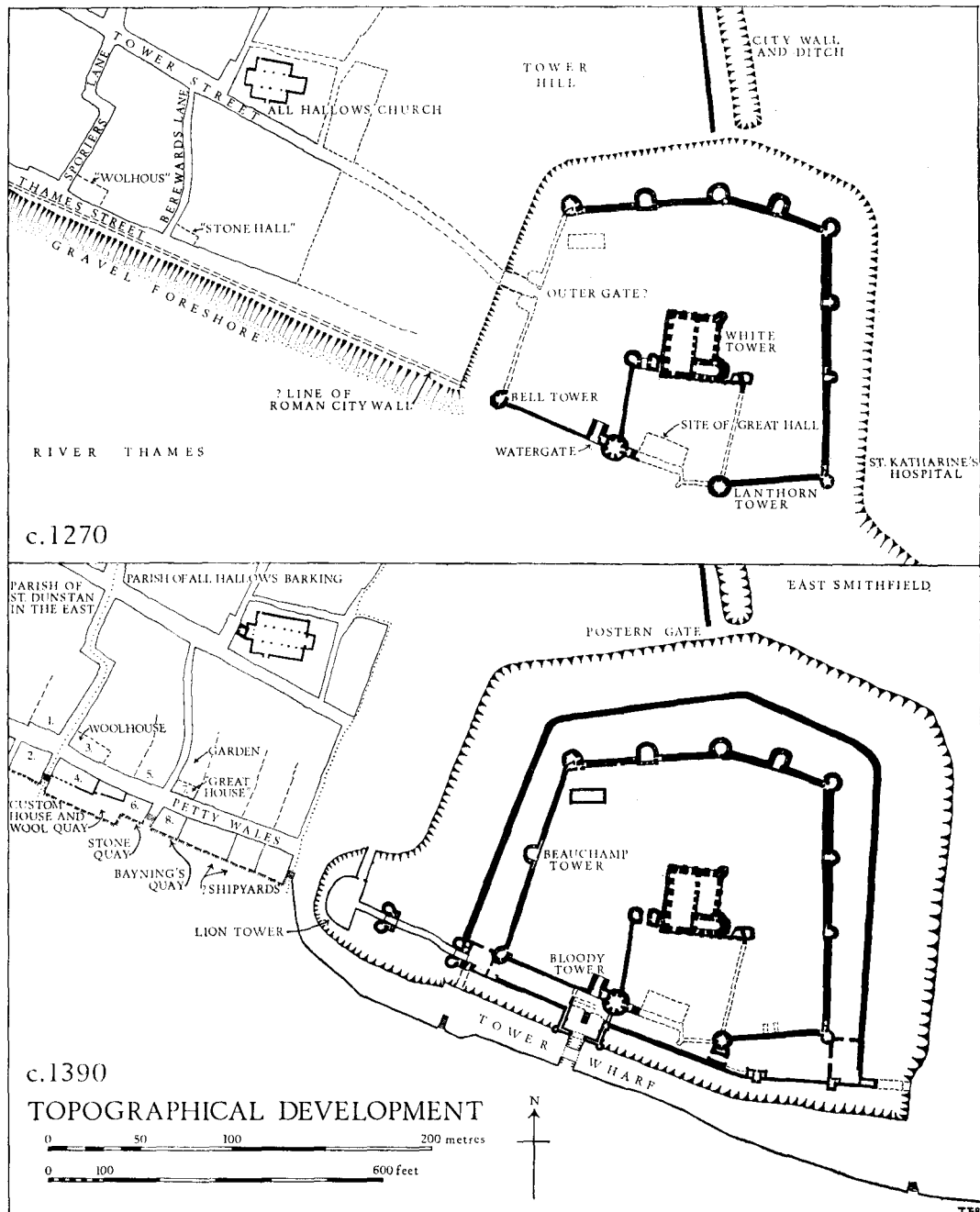


Fig. 2. Custom House Site. Topographical development of the Tower Area

It is possible that the second series of medieval timber structures excavated on the site was the defensive structure erected in 1339 by John de Tottenham I.³

To summarize, the medieval deposits on the Custom House site behind the timber water-fronts appear to be large quantities of rubbish which were picked up and deposited here towards the middle of the fourteenth century. The deposits, which consist of late thirteenth to mid-fourteenth century material, contain among other things cobblers' waste. However, most of the material is clearly ordinary domestic rubbish, including animal bones, broken pottery and a whole series of small objects. The deposits also contained a large amount of wood and other vegetable matter as well as parasitic insects, showing that the smell of rotting organic material must have been terrible over the period of perhaps weeks in which this area was being filled up. In view of this it seems most unlikely that the area remained open for long. The clean sand and gravel which was found on top of these deposits must have been thrown here as soon as was possible, the date probably being about a decade or so before the middle of the fourteenth century.

THE TOPOGRAPHY OF THE SOUTH-EASTERN CORNER OF THE CITY IN THE LATER MEDIEVAL PERIOD:

By examining a whole variety of different forms of evidence, notably documentary and historical, archaeological, geological and architectural (at the Tower), it is possible to come to some preliminary conclusions about the eastern end of the City waterfront and how it evolved in the later medieval period.

In the last ten years detailed studies of the evolution of the Tower of London have been carried out⁴ and it is now roughly possible to show how this south-eastern corner of the Roman and Saxon city was turned into a massive fortress after the Norman conquest. This fortress, which started with the building of the White tower and its surrounding ditch in the angle of the Roman walls during the later part of the eleventh century, was virtually complete by the mid-fourteenth century. During the two hundred and fifty years that the Tower was being enlarged the City was also expanding rapidly. In the eleventh century this corner of the City seems hardly to have been occupied at all, though it is possible that William the Conqueror brutally removed all the Saxon population from the area, as he did in many other English towns. All Hallows Barking church was clearly an important late Saxon church which must have served the area. By 1200 Richard "the Lionheart" had started to enlarge the area of the Tower westwards into an area which at that time was probably uninhabited, but it was not until Henry III's long reign that the great extensions northwards and eastwards beyond the Roman wall started. This involved much building and vast quantities of stone, timber, etc., must have been unloaded at the nearby quays.⁵ By about the time of the death of Henry III the Tower consisted of a keep and inner bailey within a vast hexagonal outer bailey, the whole being surrounded on three sides by a moat and on the south by the Thames (see upper plan, Fig. 2).

At this time documentary evidence starts becoming available not just for the Tower but also for some of the surrounding area. In the late 1270s almost all the land north of Thames Street and between the new entrance to the Tower (by the Lion tower) and Spicers Lane (later called Water Lane) was owned by one man, John de la Tour.⁶ We also know that the south side of Thames Street was probably the waterfront. Archaeological evidence from the Custom house site shows clearly that the area south of the street was a sloping gravel foreshore. If one allows that the Roman city had a southern defensive wall,⁷ it is very likely

that the southern wall of the Tower between the Bell Tower and the Lanthorn Tower was built on the remains of its foundations (as was the north wall of the late thirteenth century Baynard's Castle). If one extends this line westwards, it runs almost exactly along the south side of the medieval Thames Street (or "Petty Wales" as Thames Street was often called in this area)⁸. Thames Street may very well have been a late Saxon intra-mural road in origin,⁹ though by the late thirteenth century the wall was probably largely eroded away by the Thames, leaving only the very straight line of the first 500 feet of Thames Street north-westwards, and presumably isolated "lumps" of the wall lying on the foreshore as at the western end of the City.¹⁰

The most extensive change in the topography of the area until modern times started in 1275 when Edward I ordered an outer wall and large new moat to be built round the Tower. The huge wage-bills that are recorded for the *fossatores* and *hottarii* (hodmen) show both that a large unskilled labour force had been gathered in the area, and that enormous quantities of earth, gravel and lower down clay were being extracted.¹¹ The work on the moat was finished by 1281, but many of the ditch-diggers may have stayed on. That the whole of the southern area of All Hallows parish (*i.e.* directly west of the Tower) was owned at this time by one man, John de la Tour, is interesting. He may possibly have been a "foreman" in this vast operation; the name "de la Tour" seems very significant. It is interesting to note that at much the same time (1278 onwards) Edward I was rebuilding Baynard's Castle on a new site south of Thames Street at the other end of the City. The other important result of the digging of the new ditch is that it was decided in the late 1270s to make a small moat on the south side of the Tower as well as round the landward sides which would be separate from the Thames. This was probably to retain water in the whole moat at low tide, and a complete new artificial wharf was built between it and the river. Once this had been done (see Fig. 2, lower plan) silting up would start to take place on the foreshore south of the Wool Quay and the other quays to the east, with Tower Wharf acting like a groyne. As we have seen from the archaeology, the foreshore in this area was until the later thirteenth century being eroded away and no silt was deposited. The gravels of group D (see above) on the Custom House site would, almost certainly, only have started to form at this time.¹² The building of the new wharf in front of the Tower seems, from the documentary evidence, to have been going on throughout the latest part of the thirteenth century and the first half of the fourteenth century. It seems to have been completed finally with the building of a stone wall on the river front at the western end between 1365 and 1370. The stone wall on the eastern riverfront was not begun until 1389 when Geoffrey Chaucer was Clerk of the King's Works.¹³

The next important thing to affect the topography of the waterfront was the erection in late 1338 and early 1339 of a defensive structure along the waterfront between the Tower and the bridge. This was because a war with France had just begun (The Hundred Years' War) and the City was looking to its defences in case of attack by the French fleet. The defensive structure itself is described in a contemporary document as a "brattice of boards", and we also read here of "the driving in of piles" and "the erection of battlements".¹⁴ This shows clearly that the structure was entirely of wood and it is possible that the second series of timber structures excavated on the Custom House site was in fact the lower part of this very timber battlement.¹⁵ The threat to London was soon over with the complete defeat of the French fleet by Edward III at the naval battle of Sluys in 1340 and the reclaiming of the

foreshore must have continued unabated throughout the rest of the medieval period. By the time of the earliest bird's-eye view maps in the mid- to late-sixteenth century a considerable area of land is shown between Thames Street and the river.

In the later part of the fourteenth century much more documentary evidence is available for the quays in the parish of All Hallows Barking between the Tower and Wool Wharf.¹⁶ From 1319 until about the mid-fifteenth century, shipwright is the commonest recorded trade of the owners or occupiers of these quays. This seems to bear out the theory that the area was not heavily built up with houses until the later medieval period, because shipwrights would need open space near the foreshore. Besides this we perhaps have some archaeological evidence for a shipyard in the re-use of part of an old ship's hull for one of the rough water-fronts on the Stone Quay.¹⁷ Also Stow mentions a house in this area kept by "one Mother Mampudding (as they termed her) for victualling; and it seemeth that the builders of the hall of this house were shipwrights . . ." because it was clearly made (from Stow's description, which followed) of the re-used parts of a ship.¹⁸ This house was on Galley Quay (the quay immediately east of Bayning's Quay) which name Stow explains as the place at which "the Gallies of Italie, and other parts did discharge their wines and merchandises."¹⁹ However, he also says "No gallies landed here in memorie of men living" (*i.e.* in the 16th century) and he may be muddling the landing of gallies with the construction of gallies, which may have ceased here by the end of the fifteenth century. Stow goes on to tell us that the quays had in his time "been let out for stabling of horses", and "to tipplers of beer and such like". This is confirmed by the documentary evidence for the quays in the late fifteenth and sixteenth centuries where a "Stew" house (hence "Stew Quay", a quay east of Galley Quay), and two brewhouses are mentioned; one is called "Harteshorne" (this is the later name for Bayning's quay (No. 8 on Fig. 2)), and the other was the "Rammes Head", the last building on the south side of Thames Street (Petty Wales) at its east end before the watergate and the boundary of the liberty of the Tower is reached.

It is sad to record, lastly, that as a result of post-war redevelopment and tourism Thames Street has changed beyond all recognition and Spicers (Water) Lane and Berewards (Beer) Lane have disappeared completely, as have almost all the remaining archaeological deposits north and south of this part of Thames Street. The eastern end of Tower Street is now blocked off, and a huge dual-carriageway which now joins Thames Street and Tower Hill, cuts across and obliterates the medieval street pattern.²⁰ As well as all this, the Metropolitan and District railway cut a huge trench through the area at the end of the last century. (It runs along the north side of Fig. 2 in an east—west direction north of All Hallows church.) Only the Tower has remained relatively unscathed.

THE MEDIEVAL AND LATER CUSTOM HOUSES—A REASSESSMENT:

The medieval Custom House foundations which were excavated on the site were discussed fully last year;²¹ but as a brief post-script I will try here to reassess what happened to the late fourteenth century Churchman building in the years up to the great fire in 1666, after which the whole Custom House had to be rebuilt by Wren.

From the documentary evidence, the only indication we have of any other rebuilding is in 1559 when a new building is recorded as having been erected by William Paulet, Marquess of Winchester and Lord High Treasurer.²² If we add to this the pictorial evidence (*i.e.* mainly bird's-eye view maps of London) it is possible to confirm this with Wyngaerde's drawing (Plate 2). This is the only surviving undoubted original view of the city before 1559 when the new building was put up.²³ The early Elizabethan building had octagonal

towers at the corners and is shown clearly in Hollar's views of 1647 and 1666 (just before the fire, but not published till 1675). Its towers also appear in the view of the ruined city during and immediately after the fire.²⁴ The only pre-Great Fire view which does not show the Elizabethan building is Visscher (c. 1616) where a gabled building is clearly shown, even though the lower part is masked by ships. (Merian's view, c. 1638, is clearly a poor copy of Visscher).²⁵ It is also very odd that Stow does not mention the Elizabethan Custom House which would have been erected during his lifetime.

Fig. 3 is a reconstruction of what the Custom House may have looked like in the earlier part of the fifteenth century and is discussed in relation to the British Museum manuscript²⁶ (Plate 1) and Wyngaerde's view of c. 1558 (Plate 2). It mainly makes use of the plan of the excavated foundations (see Mr. Munby's note below).

NOTES

- ¹ See *Transactions London Middlesex Archaeol. Soc.* 25 (1974) 138–41.
- ² Corporation of London, *Cal. Letter Book E*, 262 and *Survey of London*, Vol. 15 (All Hallows Barking, part II) and Tony Dyson's section below, 111.
- ³ See *Transactions* 25 (1974) 132–38.
- ⁴ B. Davison in *Medieval Archaeol.* 8 (1964) 255 and Fig. 83 and *The History of the King's Works II*, ed. H. M. Colvin (London 1963) 706–29.
- ⁵ *Ibid* 710 ff.
- ⁶ See Tony Dyson below, 111.
- ⁷ Much more evidence for this wall has been found at the western end of the City waterfront in the Baynard's Castle area in 1975.
- ⁸ The Roman piles (with a very small amount of rammed chalk on top) in trenches VIII–X which cut through the earlier Roman waterfront could easily have been the remains of the defensive wall foundation, as they compare closely with the new stretch of defensive wall (mentioned above) in the Baynard's Castle area. See *London Archaeologist* 2 No. 10 (Spring 1975) 260–61 and especially Fig. 1. This wall also lay along the south side of (Upper) Thames Street.
- ⁹ See M. Biddle in *The Future of London's Past* (Worcester 1973) 23, though only the intra-mural road on the landward side is here discussed.
- ¹⁰ See *op. cit.* in note 8 above.
- ¹¹ See the second *op. cit.* in note 4 above, 716.
- ¹² See *op. cit.* note 1, 121 and 128.
- ¹³ *History of the King's Works II*, 727.
- ¹⁴ *Cal. Plea and Memoranda Rolls*, i, 177.
- ¹⁵ See note 3 above.
- ¹⁶ See *Survey of London*, Vol. 15, 44–45.
- ¹⁷ *Op. cit.* above in note 3, 128 and Figs. 12 and 13.
- ¹⁸ J. Stow, *The Survey of London* (Everyman Edition, London 1956) 124.
- ¹⁹ *Loc. cit. supra*.
- ²⁰ See Fig. 1 in *op. cit.* in note 3.
- ²¹ *Op. cit. supra*, 138–43.
- ²² *Cal. S. P. Dom.*, 1547–1580, 105.
- ²³ It is possible that the well-known illustration in the *Poems of Charles, Duke of Orleans* (Plate 1, and B. M. MS. Royal 16 E ii, f. 73), which dates from c. 1500, shows the Custom House immediately behind the Tower. (The only other building which it could portray is the colonnaded building on the west side of Billingsgate dock.) There are several similarities between this building and the one shown immediately east of the steps (i.e. the Watergate) in the Wyngaerde view.
- ²⁴ See illustrations in the *Survey of London*, Vol. 15, 31–43 and Plate 63.
- ²⁵ The views of Braun and Hogenburg, 1572 and Agas c. 1560 have all recently been shown by M. R. Holmes to derive ultimately from another drawing by Wyngaerde—*Archaeologia* 100 (1966) 105–28.
- ²⁶ See note 23 above.

THE TOPOGRAPHICAL DEVELOPMENT OF THE CUSTOM HOUSE AREA

BY TONY DYSON

One of the most significant features of the Custom House site is that from the period between the fourth century, when the Roman waterfront apparently went out of use, and the late thirteenth or early fourteenth century, when the braced foreshore structure was erected, virtually nothing was found beyond a few sherds of eleventh and twelfth century pottery: "all the Saxon and subsequent waterfronts until the late thirteenth century must have lain further north under Lower Thames Street".¹ In the reconstruction of the recorded tenures of the fourteenth century Thames Street at this point, it was also remarked that early on "there is a tendency towards the same owner holding properties which faced each other across Thames Street".²

These two observations, made on the bases of archaeological and documentary evidence, deserve further consideration because of their bearing on local conditions at Custom House, which is the subject of this note, and also upon riverfront sites in general where more recently

sections of Roman wall (Baynard's Castle) and Roman and Saxon waterfronts (Baynard's Castle, Seal House and New Fresh Wharf) have been located under or very close to the present Thames Street. Central to all these sites is the question of the extent, rate and timing of tidal transgression whose operation at Custom House explains, as nothing else can, the archaeological conclusions outlined above. If, over some substantial period before the late thirteenth century, the Custom House waterfront with any pre-existing quays or wharves lay beneath the present Thames Street—which is at least 24 ft wider than its medieval predecessor³—a considerable portion of the associated tenements and warehouses must have been sited north of the street (Fig. 2.)

A handful of deeds, dating from between 1281 and 1350, demonstrate the phenomenon of "double-tenures" across Thames Street. These relate to a line of four adjoining tenements, of which the middle two formed the site of the medieval Custom House, which extended for some 300 ft along the street.

- 1-2 These two tenements lie in the parish of St. Dunstan in the east, and stand apart from the rest of the group. They first appear in 1331 when the executors of William de Bodele granted to Laurence de Branghwynghe all the tenements with houses, lands and quay near Wool Wharf. The deed divides and describes the property as two separate parts, one north of Thames Street and west of Sporiars Lane, the other south of Thames Street and west of Watergate.⁴
- 3-4 Wool Quay, like the remainder of this block of property, had once belonged to one man, John de la Tour who, before his death in 1285, sold this portion to Adam Blakene. In 1295 Blakene bequeathed it to his daughter Katharine, describing it as a hall (*aula*) with chambers and a house called *Wolhous* with part of a garden and appertinences in Sporiars Lane, All Hallows Barking.⁵ There is no specific reference to a quay, but when the property next appears in 1326 it is described as a tenement with a vacant plot, shops and quay, bounded by Thames Street to the south, Sporiars Lane to the west, the heirs of John of Canterbury to the east, and the tenement of Richer de Refham to the north.⁶ It is interesting to note that the portion south of Thames Street (including the quay) is not so described and that its inclusion is assumed.
- 5-6 The same is true of Stone Quay, immediately to the east. This first definitely appears in 1295 when Adam Blakene bequeathed to another daughter, Agnes, his land on the quay, with a house upon it, which he had bought from Peter Fleng and John de la Tour and which extended opposite the stone house also purchased from John de la Tour, all in All Hallows Barking. In 1304 John of Canterbury bequeathed it to his daughter Cecilie as all that messuage with a quay opposite the house called *Stonwarf*. A deed of 1349 shows that Stone Quay extended as far east as Berewards Lane, and describes the property as comprising a messuage and a quay, opposite that messuage, called Stone Wharf, with houses on the wharf, all of which Alice of Salisbury held on the death of her mother Cecilie.⁸ This Cecilie was clearly the daughter and legatee of John of Canterbury. Again, bounds are here provided only for the part of the property north of Thames Street, possession of the quayside being understood.
- 7-8 John de la Tour's will of 1285 bequeathed to his son Robert the capital messuage with the quay, solar, cellar etc., in All Hallows Barking near the lane called Berewards Lane to the west. Adam Blakene's will of 1295 required that his stone hall, which he bought

from Robert de la Tour with quay, garden, etc., was to be sold off to pay his debts. A deed of 1281 refers to a southward extension of Berewards Lane as the gate called Watergate.⁹

Three of these four cases of "double tenements" (3-4/7-8) show that earlier than 1285 there was a common ownership of properties across Thames Street, and three cases again (1-2/5-6) show that the same was true well into the second quarter of the fourteenth century.

Earlier than this the situation is much less clear. The fact that John de la Tour owned such a large block of property—virtually the whole All Hallows waterfront as far east as the Tower¹⁰—suggests that the commercial development of this comparatively remote area was in any case still in its infancy in the 1280s. References to quaysides in the parish are rare in the *Husting Rolls*, which commence in 1252, and the earliest such mention dates from 1278.¹¹ Indeed, of the fifty-six pre-1300 *Husting* deeds concerning property in the parish only thirteen specify quays or wharves, or refer to Thames Street. Most of the rest relate to tenements in Mincing or Seething Lanes, north of Tower Street. In St. Dunstan's parish, to the west, quayside references in the *Rolls* are markedly more numerous, and the earliest, in the records of Holy Trinity Aldgate, date from 1197-1212.¹² Further west still, in St. Mary at Hill, the first quaysides are recorded in 1147-67.¹³ Though arguments from silence have their limitations the general impression remains of a progressively late development of the waterfront from west to east. None of the All Hallows or St. Dunstan's deeds so far cited is provided with measurements which could determine the relative distances between river and street over a period of time, but one such deed of 1294, relating to a waterfront property of uncertain location, shows that the distance was at least 25 ft, and could well have been considerably more,¹⁴ while another deed of 1278 indicates that the length (*i.e.* the greater dimension) of a wharf in St. Dunstan in the east ran north-south from Thames Street.¹⁵

Some indication of local conditions in the Custom House area is provided by the development of the Tower of London which lies almost immediately to the east. The White Tower of *c.* 1080 was, significantly, erected some short distance to the north of the Thames Street alignment and, until the alterations undertaken by Edward I, was approached along Great Tower Street. Excavations at Beauchamp Tower, part of Henry III's inner curtain wall, disclosed earlier foundations of "quite exceptional size and solidity", presumably representing the original entrance to the immediate area of the keep.¹⁶ Great Tower Street, an eastern extension of Eastcheap, is itself of evident antiquity—All Hallows Church, which stands on its north side, is of eighth or ninth century date—remained the only western access to the Tower until 1275-1285 when Edward I constructed the present entrance south of the alignment of Thames Street, and south also of the inner curtain wall between Bell and Lanthorn Towers. According to R. A. Brown and H. M. Colvin there is evidence, which they do not specify, to indicate that in the reign of Henry III this section of the curtain stood directly on the foreshore, that its base was washed by the Thames at high water, and that as a result it was not possible to approach on foot the Bloody Tower, originally designed as a watergate, until Edward's reign.¹⁷ It is tempting to see in Edward's innovations a response to changing tidal conditions, and also a means of according Thames Street, previously—at most—a backwater at this point, the status of a thoroughfare with a definite and important destination.

Until tested by further excavation the conclusion to which the documentary evidence points is that until about the mid-thirteenth century the local waterfront lay just south of, or under, the present Thames Street. Thereafter marine transgression slowed down, encouraging the use as quaysides of restricted areas south of the street by the end of the third quarter

of the century. The construction at roughly this time, and very probably as a result of the same conditions, of the present entrance to the Tower near the alignment of Thames Street may very well have lent an additional spur to commercial activity in the locality.

NOTES

¹ "Excavations at Custom House", *Trans. London and Middlesex Archaeol. Soc.* 25 (1974) 128.

² *Ibid.*, 144, 147 n. 19.

³ John Leake's plan of 1666 indicates that Thames Street was 16 ft wide at this point.

⁴ Corporation of London Record Office (C.L.R.O.) Husting Roll 59 (145).

⁵ *Ibid.* 24 (100.)

⁶ *Ibid.* 54 (115.)

⁷ *Ibid.* 32 (40.)

⁸ *Ibid.* 77 (49.)

⁹ *Ibid.* 12 (89.)

¹⁰ *Ibid.* 19 (11.)

¹¹ *Ibid.* 9 (84.)

¹² *The Cartulary of Holy Trinity Aldgate*, ed. G. A. J. Hodgett (London Record Society, 7) (London 1971), No. 223.

¹³ *Ibid.*, No. 231-32.

¹⁴ Husting Roll 23 (14.)

¹⁵ *Ibid.* 9 (26.)

¹⁶ *The History of the King's Works*, ed. H. M. Colvin, 2 (London 1963) 711-12.

¹⁷ *Ibid.* 712, 726.

A NOTE ON THE MEDIEVAL BUILDINGS

BY JULIAN MUNBY

The form of the medieval Custom House is not very clear from the excavated remains, but an outline interpretation has been attempted (Fig. 3). Given the probable depth (N-S) of the building, it was probably roofed parallel to the river, and would not, in its first stage, have had gables. The small extension to the east of the main block (containing the drain, and presumably the latrine) does not appear to be with the eastern block. The eastern building, however, had no clear indication of a west wall.

The magnificent building shown in Pl. 1 may show the Custom House at a later stage. The illustration was drawn by Flemish artists in England, c. 1500, and seems to be a remarkably accurate piece of topographical drawing, as its details of the Tower and London Bridge indicate.¹

A building of five bays is shown, with open arcading on the ground floor, and at least one row of piers behind, supporting a vaulted ceiling. The three left hand bays have two upper storeys of stone, with varying fenestration. The jettied gables have attic windows. The two right hand bays have a stone first floor without windows, with two storeys of timber-framing above. One of the gables appears to have traceried framing beneath a two-centered arch (allowing for conventional rounding-off of pointed arches); this would be quite remarkable, were it not for the possibility that this is Flemish or fantastic vernacular creeping in to the drawing. The final bay has more conventional framing with arch-bracing to the pre beam. All the gables have queen-posts or struts.

A stone building is shown to the right of the one described, with a round tower and rectangular extension. This could show more of the Custom House, or, conversely be part of the outworks of the Tower.

Wyngaerde's sketch of c. 1558 is the next view that must include the Custom House (Plate 2) unless the whole waterfront is shown conventionally, which seems unlikely.

A row of gables is shown, with long roofs at right-angles to Thames Street; the first five to the east of the Water Lane steps would seem to represent the Custom House. The perspective is ambiguous, being partly obscured by a large crane on the quay, but the first and last gables appear to be forward of the rest. The wider gable on the right has two bays of open arcade below it, but no arcading is shown to the west; though again this could be obscured by the crane.

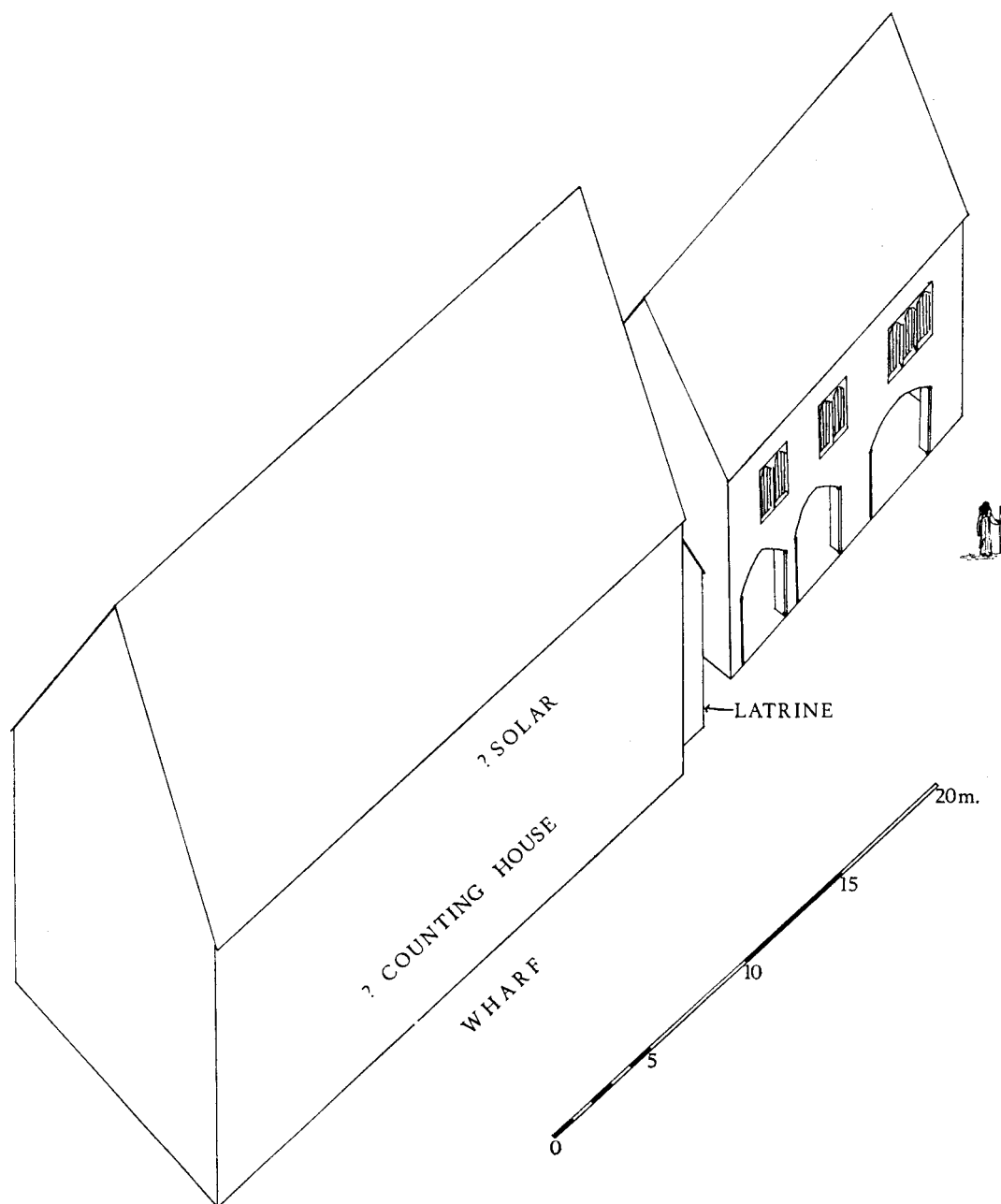


Fig. 3. Custom House Site. Axonometric reconstruction

Later topographical views, mentioned above, may show some of the medieval buildings beside the Elizabethan brick rebuilding.

The medieval Custom House remains somewhat elusive despite our attempts to restore it. It must in part have resembled an ordinary warehouse, of which there is a fine surviving example at Hampton Court, Kings Lynn, of c. 1500, which has an open arcade towards the river.² Other activities may have been done outside on the quay,³ whereas most of the administration would have taken place indoors, and requires no special architectural arrangements.

NOTES

¹ Cf. H. M. Colvin ed. *The History of the King's Works*, II, 727, Plate 46A and note 23 above. Another illustration in the British Museum shows a view of Paris with similar topographical detail. (MS. Royal 16 E ii, f. 89).

² V. Parker, *The Making of King's Lynn* (1971), 57-59, Fig. 8, Plate 5A.

³ For an eighteenth century view, see *London Archaeologist* 2, No. 10 (1975), 239.

THE CARPENTRY

BY CECIL A. HEWETT

(All page and Fig. numbers refer to the main publication in *Transactions* 25 (1974) 117-219)

ROMAN (Figs. 6, 7, 8, 9 and 10):

The Roman carpentry at the Custom House Site is difficult to assess since timber water-fronts are recognizable as a specialized category of structures, and a category within which very few examples are yet known that afford comparisons. It is intelligent but lavish of means, and is therefore economically unsound by either contemporary, or medieval standards. No jointing or assembling techniques seem to be known as yet, that distinguish Roman carpentry from other kinds, and the more Roman examples become known, the less likely does any peculiarly Roman technique become. The Normans, in contrast, employed a technique of notched lap-jointing that facilitated rearing and subsequent bracing for stability; it is both elegant and eloquent, since visually comprehensible. This technique demanded considerable skill of the craftsmen and resulted in structures that expressed, visually, the functions of their component parts and the physical nature and suitability of their material—timber. It further resulted in timber buildings that can be seen to be “built”, by a logical succession of components in an accumulating sequence. This was also a carpentry tradition that was sensitive and economical of means, providing adequate but never superfluous strengths. The Roman structure on the Custom House waterfront was built of timbers having every appearance of planing, manually with long planes, such as we know the Romans to have possessed. The even flatness and smoothness of their surfaces could hardly have resulted from the pressures to which they had been subjected, or the softening action of permanent saturation; either or both of which would have been unlikely to remove the concave facetting produced by axe or adze dressing. An expensive undertaking is, therefore, suggested; and this suggestion is endorsed by the use of timber, in great quantity.

The details shown in Fig. 9, are of great interest, but as stated none of the techniques used can be considered peculiarly Roman. The use of barefaced lap-dovetails with declining soffits, and the use of “free” tenons to secure the adjacent edges of any two timbers at regular intervals, are methods well known throughout the medieval period;¹ and it would be interesting to learn whether these techniques were actually derived from Rome, or independently acquired.

The Custom House quay will sustain some comparisons with the example at Xanten,² being closely similar at its wateredge, where heavy squared timbers were stacked one upon

another and successively reduced in width. A difference, however, is the seeming lack of any devices at Xanten which tied the layers together—like the “free” tenons at the Custom House (Fig. 9). Another difference is the quantity of timber used at Xanten, a very much smaller amount if calculated in cubes per superficial yard of quay; resulting in a different type of structure and discouraging further comparisons. The slow silting of the box-like cavities of the London quay, and the absence of any filling at the time of their completion, leads to some speculation as to the tidal nature of that site and the water-level of the river at that date, p. 124, concerning which other interpretations are possible, than those suggested. Firstly, the suggestion that the timber structure was intended to float, and rise and fall with the tides—this is highly improbable because timber assemblies of “plank-on-edge” section, such as the Custom House quay, could only be expected to keep their upper faces level with the water’s surface—unless both floored and caulked, which was not the case. Secondly, the possibility that the quay was above the tidal reaches of the river at that time, this seems to have little bearing on the slowness of the silting-up, but to be most positively against the theory of a floating structure. If the quay were assembled on-site, as its great weight would imply, it must have sunk deeper as each successive layer of timbers was superimposed, and by the time a height of 1.5 m was attained, in a possible water-depth of *c.* 3–4 ft, its base must have pressed very heavily (oak weighing 60 lb per cubic ft) into the soft upper surface of the river’s bed. This being the case, and all of its horizontal joints being accurate, only the finest particles could have entered, and the water-level inside the boxes may have been relatively constant. Poor joints, and a free passage of the river water through the joints, would have been necessary for any rapid silting of these boxes, conditions for which no evidence was found.

FIRST MEDIEVAL STRUCTURE (pp. 128–132, Figs. 11, 12 and 13):

The crude methods used to construct this quay-front, together with the obviously salvaged materials, in no way assist with dating the construction—indicating only a very low order of costs, semi-skilled labour and the re-use of waste material—none of which are in themselves dateable occurrences.

The strakes of the clinker (clincher) built vessel that were used for the land retaining wall of the quay (Figs. 12, 13 and Pl. 5) show the use of lozenge shaped roves and clenches. The strakes, measured by the inset scale are *c.* 180 mm wide and would, of course, be 40 or 50 mm more if the overlapped and clenched part is added; this postulates a “ship” rather than “boat”. If salvaged from a wreck it is noticeable that the whole piece was inverted for its second use, because clincher building applies strakes from the keel upwards, resulting in square overhangs with the clenches showing above them—the opposite of those in Pl. 5. Roves and clenches of this type are known from at least as early as the Sutton Hoo Ship,³ and continuously thereafter, until the end of the Perpendicular period; in the context of ecclesiastical door construction.⁴

THE SECOND SERIES OF MEDIEVAL TIMBER STRUCTURES (pp. 132–37, Figs. 14, 16 and 19):

The accuracy of this work, at its best (the cross-halvings and scarfs of its plates), indicates that it was worked and fitted in a clean situation, probably a frame-yard nearby; or a temporary one on “the hard” above the site. The scarf-joints used were through-splayed and tabled, the variety now popularized as the “trait-de-Jupiter” which is a term derived from early documents and based upon a fancied resemblance to lightning (Plate 3). These are joints known in a wide variety of contexts, including cathedrals;⁵ and the great majority

of recorded examples fall within either the thirteenth century or the early fourteenth century. They are a form of scarf only suited to resist extension, but they also admitted of the "laying" of successive lengths of structure and in the present context they show that the front was built from east to west. The use of wedges outside the chase-tenons does not argue for skilled carpentry, since the framing of such triangles as separate units, probably in a temporary yard, presents no difficulties and the occasional need for a wedge to fill an overlong mortise indicates some haste, and a lack of care, such as might be expected in work for so humble a purpose in such an unseen situation. Being a waterfront its detail would rarely be examined, except by watermen, and at low-tide.

The random use of curved, re-curved, or straight timber for the braces indicates selection within a strictly limited range, *i.e.* a closely calculated number of trees for the contract, resulting in limb-timber being used for this secondary purpose. The use of barefaced tenons off the soffits, for fixing the outer plates to the sole-pieces may not result from any motive other than economy, since two saw-cuts produced such tenons as against four saw-cuts to produce the alternative centre-tenons; twice the time and twice the cost in labour. But the use of this barefaced type for early floor-framing⁶ may indicate some thought as to the behaviour of tenons subjected to sheering stress by downward pressure—since outward pressure from the land-side of the retaining wall would have been converted into downward pressure on the sole-pieces by the triangulating braces.

The probability that the carpenter responsible for the major structure (Fig. 18), is recoverable, by name, is fascinating although uninformative. That John de Tottenham I was City Carpenter during those years of the fourteenth century to which the balance of the evidence points: between 1325 and 1347, is apparent; but the work in question is not, in all probability, one by which that gentleman would have chosen to be remembered.

THE NORTH-SOUTH JETTY STRUCTURE (p. 132, Fig. 15):

The fragment of a "lattice" type scissored bracing system shows the anticipation by its designer of laterally applied forces, that sought to deflect the upright posts from vertical, such as may have been supplied by the current-force, of rising and falling water levels due to the tides. The same principle is best illustrated by medieval timber belfry construction, designed to resist the sidewise impetus of the semi-rotated bells.⁷ Poor jointing is, however, again evident since the mortises shown in Fig. 15 are not cut to fit their tenons—as a result of which movement of the structure was possible, its pegs acting as pivots. The squinted half-laps would, on the other hand, have given some stability.

THE TIMBER SEWER (p. 140, Fig. 21):

The construction of this showed considerable thought as to the possible modifications of tenons and their shoulders, enabling the resultant assembly to resist precisely those stresses to which it was likely to be subjected. But, all these techniques clearly pre-date the inception of the tenon with diminished-haunch, used in 1510 by Richard Russell⁸—and it is therefore fairly sure that the sewer is of an earlier date.

NOTES

¹ C. A. Hewett, *English Cathedral Carpentry* (London 1974) 89.

² H. von Petrikovitz, "Die Ausgrabungen in der Colonia Traiana bei Xanten", *Bonner Jahrbücher*, 152 (1952) 145–57.

³ R. L. S. Bruce-Mitford, *The Sutton Hoo Ship burial*, a *Handbook* (London 1972).

R. L. S. Bruce-Mitford, *Aspects of Anglo-Saxon Archaeo-*

logy (London 1974).

⁴ C. A. Hewett, *Church Carpentry* (Chichester 1974) 96–114.

⁵ C. A. Hewett, *Development of Carpentry* (Newton Abbott 1969) 173.

⁶ *Op. cit. supra.* 196.

⁷ *Op. cit. supra.* Plate XXI.

⁸ As note 1, 44–45.

THE FINDS—Part 2

(For brevity (I-22) in the individual reports equals Trench I, Layer 22 (see STRATIFICATION, Tatton-Brown (1974, 147-151) and the object number in brackets, e.g. (133), refers to a card index held with the excavation records in the Museum of London.

The bibliography for each section of the finds report is to be found at the end of the individual sections.)

MEDIEVAL POTTERY

BY JAMES C. THORN

INTRODUCTION:

A synopsis of the significant aspects were included in the publication of the site itself, Tatton-Brown (1974, 180-83). The items mentioned there were as follows:

Group A, Nos. 20-28; Group B, Nos. 30, 35; Group C, Nos. 64, 67, 115, 116, 119-20, 126, 128, 129, 133-50, 152, 154-217, 362-72; and Group D, Nos. 373-76, 380, 382, 388, 400-401, 422-25.

The approach used here to classify the medieval ceramics was to keep them in the Group sequence as defined in the excavation report Tatton-Brown (1974, 121) and with the full description of layers and groups in the stratification summary Tatton-Brown (1974, 147-51).

The classification is uniform for each particular Group, starting with a section on the range of imports, followed by ceramics from the British Isles. The latter are divided into four groups of sand-tempered wares based on colour:—

White Ware (Surrey White) from white to cream fabric.

Red Ware (Surrey and Kent) from pinkish red to bright or dull red fabric.

Slipped Red Ware (West Kent) same as red ware but with slip.

Grey Ware (Surrey and Hertfordshire) reduced red wares.

A fifth section deals with shell tempered wares:

Shell-tempered Ware (West Kent?) red to dull grey fabric, some of these wares contain sand tempering mixed with shell.

The provincial wares that are products of the outer perimeter of the Home Counties did occur, e.g. Nos. 233 and 400, and have on the basis of the colour of the ware been included in the main section. This has been done for convenience, as it is not certain at present how much of these attributed wares are products of London's provincial kiln sites.

Note: In the pottery catalogue the following abbreviations are used:

The numbers in brackets are the trench and layer numbers, i.e. (I-22) = Trench I layer 22. For a detailed summary of these layers see stratification summary in the main site report Tatton-Brown (1974, 121 and 147-151).

Museum (and Accession Numbers) are referred thus:

B.M.—British Museum

G.M.—Guildhall Museum

L.M.—London Museum

V. & A.—Victoria and Albert Museum

All sherds are illustrated unless otherwise stated. Tatton-Brown (1974) refers to the main publication of the site in *Transactions* 25 (1974), 117-219.

Group A1. Custom House foundations (southern foundation wall trench (VI-38), Tatton-Brown (1974, 138, Figs. 20-21))

The material found is basically residual sherds but the Cr and C2 and is not illustrated. There was also a residual sherd of Roman pottery.

FIG. 4:

Group A1/A2 Timber drain construction trench (Foundation trench filling, Tatton-Brown (1974, 140, Figs. 20-22))

The material is basically residual sherds but the Saintonge jug No. 2 was nearly complete, and was also found in an upper layer which is considered as the filling to the construction trench for the additional wall, Tatton-Brown (1974, 140, Fig. 20).

Normandy ware (lemon yellow glazed ware)

1. Body sherd (VI-28). Fine white ware, red inclusions, thin yellow ochre slip on exterior (shown black) with deeply incised areas to reveal ware. The whole surface is covered with a clear glaze which appears pale yellow on the white areas.

Saintonge (even monochrome glazed ware)

2. Jug (VI-28). Hard, fine, white ware, even, bright green glaze on exterior, now discoloured. A base sherd to this was found in (VI-27) which joined. This shape compares with an unprovenanced example in the Society of Antiquaries Collections (Item C23), London. This is additionally decorated with an applied hand-modelled mask just under rim, and completely covered internally as well as externally with a light, clear, green glaze; cf. Dunning (1933, 133 and Fig. 14D). More recently in London at New Fresh Wharf 1974 was found the example inset on Fig. 4 (information from Michael Rhodes). The latest dateable piece of this ware was found in 1856 at Saint Nicolas de Leure, Le Havre; in a stone tomb of Guillaume Pare who died in 1379, a Saintonge jug with a similar profile to 136 (Fig. 10 inset) had been used as a funeral pot; cf. Dunning (1933, 133-34 and Fig. 14E).

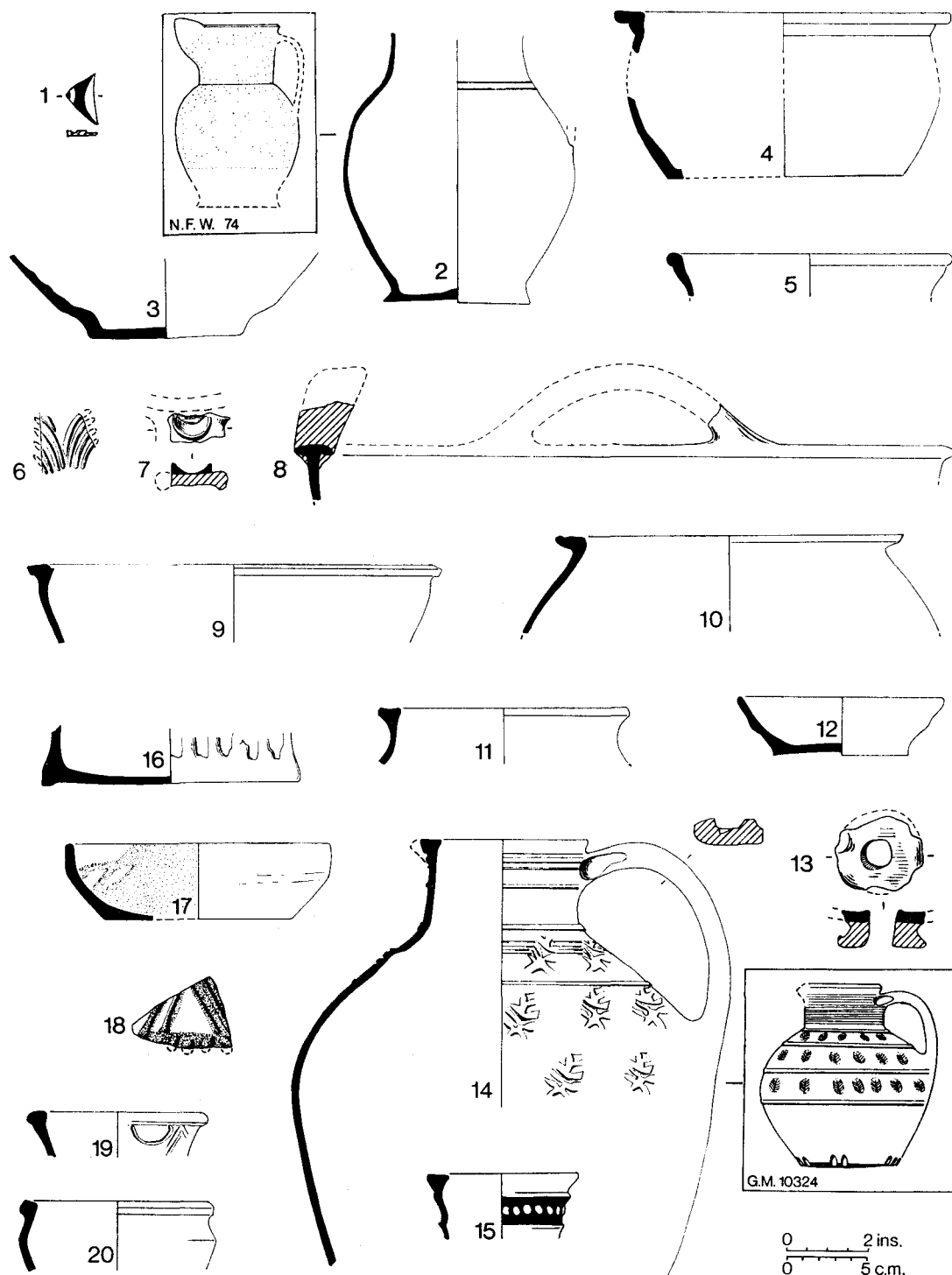


Fig. 4. Custom House Site. Medieval Pottery Groups A.1-A.3 ($\frac{1}{4}$) (Inset $\frac{1}{8}$)

Red ware

3. Cooking pot base (VI-28). Fine, sandy ware, patches of pale brown glaze on interior base, sooted exterior.

Group A1/A2 Timber drain fill (Tatton-Brown (1974, 140, Fig. 21)).

From this silt (VI-40) came an amorphous body sherd of a cooking pot which was in white ware, and the buckler, Tatton-Brown (1974, 201-204, Figs. 43-44).

Group A2 Custom House extension after destruction of the timber drain (Foundation Trench Filling, Tatton-Brown 1974, 140, Fig. 20)).

Most of the sherds from this are similar in form to wares found in Group C2. The only exception is a flanged bowl No. 4 below.

White slipped red ware

4. Flanged basin (VI-27). Fine sandy ware, slipped interior and sooted exterior.

Group A2 Custom House Arched Extension.

(Foundation Trench, Tatton-Brown (1974, 140-41, Figs. 20, 21 and 25)).

In this group were fragments of building material including roofing tiles. The latter seem to be the only recognizable contemporary material in a group otherwise mixed with residual sherds from Group C2.

White ware

5. Cooking pot rim (III-12). Fine, sandy ware, sparse, pale green glaze over rim.

Group A3 Trodden Gravel layers of quay, (Tatton-Brown (1974, Figs. 24-26)).

Most of this material seems to be redeposited probably from Groups C1 and C2. An outstanding example of this is a jug No. 14, most of which was found in a weathered state in the upper levels of Trench XV. A sherd which did not join, but was obviously from the same jug was found in Group C2 in an unweathered state.

White ware

6. Escallop stamp, broken (VII-3). Sandy ware, covered with green glaze.
7. Strap handle (I-9A). Fine, sandy ware, cup-shaped spaur covered with pale yellow glaze.
8. Cooking pot rim sherd with loop handle (I-ii). Similar profile and decoration as used on 190, possibly the same vessel type. A similar vessel with loop handle was found in the Thames at Silvertown (L.M. C.952); cf. Dunning (1940, 222 and Fig. 73).

9. Cooking pot rim sherd (VII-3). Hard, sandy ware, splashed light green glaze on interior as well as exterior which is soot-covered.
10. Cooking pot rim sherd (XV-4). Hard, sandy ware, splashed light green glaze over rim. An identical example in form was a waster found in Trench III-2A at Eden Street Kiln, Kingston-upon-Thames; cf. Smith (1969).
11. Cooking pot rim sherd (I-10). Sandy, cream ware, splashed light yellow glaze over rim, sooted exterior.
12. Bowl (IV-23). Fine, sandy ware, mottled green glaze on interior. A similar example to this but slightly deeper was found at 116 Cannon Street (GM 16231).
13. Bung hole pitcher (IV-5). Fine, sandy ware, covered with light green glaze. These are connected with straight or squat sided pitchers, such as examples from Bell Alley (L.M. A.15285); cf. Dunning (1940, 228, Pl. LXIV).

Red ware

14. Jug (XV-2 and 4). Fine, sandy cream ware, raised cordons around neck and body, between which are stamped decorations pushed outwards from the inside by one finger. The strap handle is applied with pear-shaped finger impressions at neck only, along

length of handle are a continuous row of diagonally incised stabbed holes. This jug is weathered on the exterior but a piece possibly belonging to this jug was found in Group C2 (XV-13 and 15); cf. Tatton-Brown (1973, Fig. 26). The base is missing but most probably it was sagging, with sets of finger impressions such as on an example in GM (10324) from 64-66 Cheapside (Fig. 4 inset) which is the most common form in London. The treatment of the handle is reminiscent of similar jugs found on the cellar floor at King's Langley, the ware being associated with a jetton of c. 1390; cf. Neal (1973, 52 and 61, Figs. 24-25).

15. Rim sherd (XIV-2). Fine, sandy ware, thin, white slip on exterior and just over rim, over which is a light red wash (shown black), upon which is a continuous row of applied white pellets, appearing pale yellow under a clear glaze. This zone of decoration is similar to the Lime St. jug (LM. A27515); cf. Fig. 14 inset.
16. Jug base sherd (XV-10). Fine, red ware, vertical strip decoration covered with a sparse brown glaze.
17. Bowl (I-9A). Fine, light red, sandy ware, splashed clear, light brown glaze on interior. A similar bowl slightly smaller in GM (16621) was found at Post Office Court, 1939.
18. Jug, body sherd (XIV-2). Fine, light red, sandy ware with zone of white slip on which has been applied lattice strips, below which is scale decoration.
19. Jug rim sherd (XIV-2). Sandy, red ware, thinly slipped and showing incised decoration.

Group A3 Post-hole cut into Trodden gravels in Trench II, Tatton-Brown (1974, Fig. 14).

This is a large, shallow post-hole which contained a few pieces of residual sherds, probably from the trodden gravels of Group A3.

White ware

20. Jug, rim sherd (II-1). Hard, sandy ware, green glazed exterior with sooted rim. This compares to an example identical in form found as a waster in Trench II-3A at Eden Street Kiln, Kingston-upon-Thames; cf. Smith (1969).

FIG. 5:

21. Pitcher? rim, rod handle (II-1). Fine, sandy ware, light green glaze covering most surfaces. A similar example was found as a waster in Trench III-26 at Eden Street Kiln, Kingston-upon-Thames; cf. Smith (1969), but with fluted handle and finger impressions around junction of handle.

Group A4 Custom House Cellar

(Filling above rough cellar floor, Tatton-Brown (1974, 140, Figs. 20-21).)

The filling seems to contain mostly residual sherds, of which the storage jar No. 28 is a good example. This has a weathered surface, indicating exposure to the atmosphere. An exceptional piece is jug No. 22, which is in a ware found nowhere else on the site.

White ware

22. Jug (VI-30). Hard, partly vitrified buff ware, some red inclusions covered by a bright, clear, thick, deep tortoise-shell glaze with brown flecks.
23. Jug, body sherd (VI-14). Fine, sandy ware, part of fleur-de-lys stamp pushed outwards.
24. Bowl (VI-14). Sandy, light grey ware with most surfaces covered with mottled green glaze.
25. Jug, rim sherd (VI-14). Fine, red ware, unglazed, sooted exterior.

White slipped red wares

26. Jug (VI-24). Hard, fine, red ware, thin, even slip on exterior covered with a clear, pale green glaze with stabbed handle.

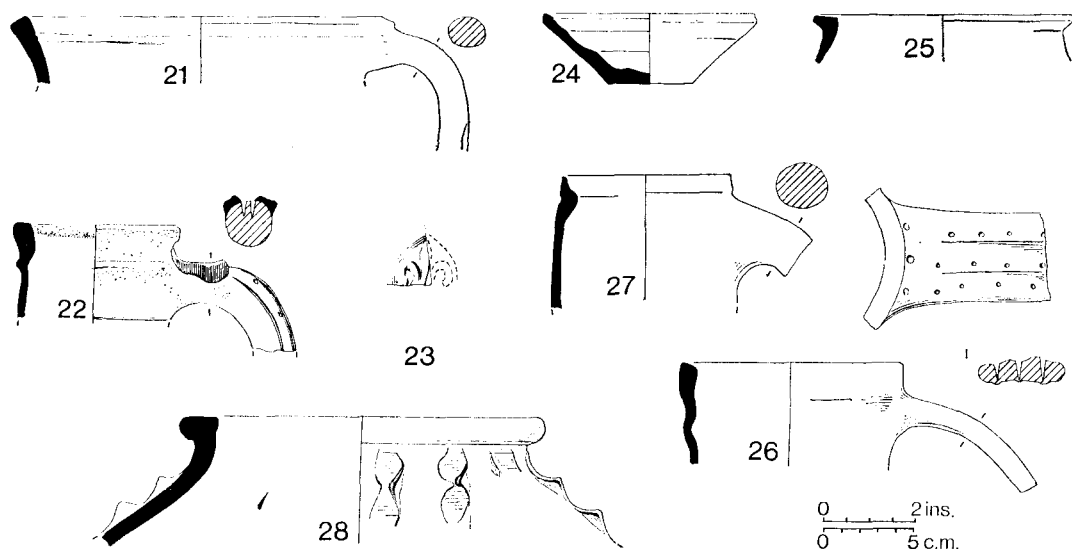


Fig. 5. Custom House Site. Medieval Pottery Groups A.3-A.4 ($\frac{1}{4}$)

27. Jug (IV-30). Fine, red ware, grey core, thin slip on exterior with sparse yellow glaze.
 28. Storage jar rim sherd (VI-14). Hard, sandy, grey ware, vertical applied strip decoration heavily pressed along its length. A similar jar (LM 35.174) was found under a farmhouse at Fawkham, Kent; cf. Dunning (1940, 219 and Fig. 71).

Fig. 6:

Group B Tips into the area of robbed medieval timbers.

The material from this group would seem to be redeposited from the earlier context of Group C1. Unusual pieces found only in this group are the Saintonge wares 32 and 33, which are polychrome with a monochrome glaze; also a near complete jug No. 34 and an exceptional sherd was the Mediterranean ware No. 36.

Langerwehe (stoneware)

29. Jug (IV-7). Light grey ware, light brown, lustrous glaze typical of Raeren stoneware.
 30. Jug (IV-27). Light grey ware, rouletted cordon, deep purple-brown, lustrous glaze. This form seems to be more common for Brunsum wasters of the later thirteenth-early fourteenth century; cf. Bruijn (1966, Pl. 52).

Siegburg (stoneware)

31. Jug (II-10). Hard, white ware, dull outer surface, fire crack in base. The upper portion of this form was found in Group D1, No. 374. This form is identical to those found on the kiln dump at Siegburg and is classified as Group V Type 79; cf. Beckmann (1974, 190 and Fig. 13).

Saintonge (decorated even monochrome glaze)

32. Jug (II-9). Hard, smooth, white ware, exterior decorated in green, outlined with purple-brown and covered with a bright, clear glaze. On the interior is an even, green glaze.
 33. Jug (II-12 and 13). Hard, white ware, red inclusions, decoration and pale yellow glaze on exterior now weathered. The interior covered with even, green glaze.

Saintonge (mottled monochrome glaze)

34. Jug (II-19). Fine, white ware, red inclusions, vertical strip decoration under spout and sides, lightly pressed on surface, a thick, mottled glaze covers exterior. The base which possibly belongs to this type is 144.
 35. Lobed cup (II-13). Hard, white ware, applied rod handle, mottled green glaze on exterior. This fragment might be from Isle de France region.

Mediterranean? (lustreware)

36. Body sherd (II-16). Fine, red ware, exterior covered with a blue-black wash, raised feather pattern in a lighter colour, possibly white, with bands of lustre. This and the interior are covered with a thin, bright, clear glaze.

White ware

37. Jug, spout (IV-26). Hard, fine, white ware, mottled green glaze.
 38. Jug, rim sherd (IV-14). Hard, sandy ware, mottled green glaze.
 39. Jug, rim sherd (IV-14). Hard, sandy ware, mottled green glaze on exterior.
 40. Jug, rim sherd (IV-16). Hard, sandy ware, mottled green glaze on exterior.
 41. Jug, rim sherd (IV-14 and 16). Hard, sandy ware, deep, clear, green glaze over all surfaces.
 42. Jug, strap handle (II-16). Fine, sandy ware, stabbed decoration, clear, bright green glaze.
 43. Jug, strap handle (IV-14). Sandy ware, stabbed and grooved decoration, deep green glaze.
 44. Jug, base sherd (II-3). Sandy ware, mottled green glaze, lobed finger-impressed base.
 45. Cooking pot, rim sherd (II-18). Fine, sandy ware, pale, mottled green glaze, sooted exterior.
 46. Cooking pot (II-18). Fine, sandy ware, patchy, mottled green glaze, sooted exterior. Identical in form to a waster with a lip found in Trench III-26 at Eden Street Kiln, Kingston-upon-Thames; cf. Smith (1969).

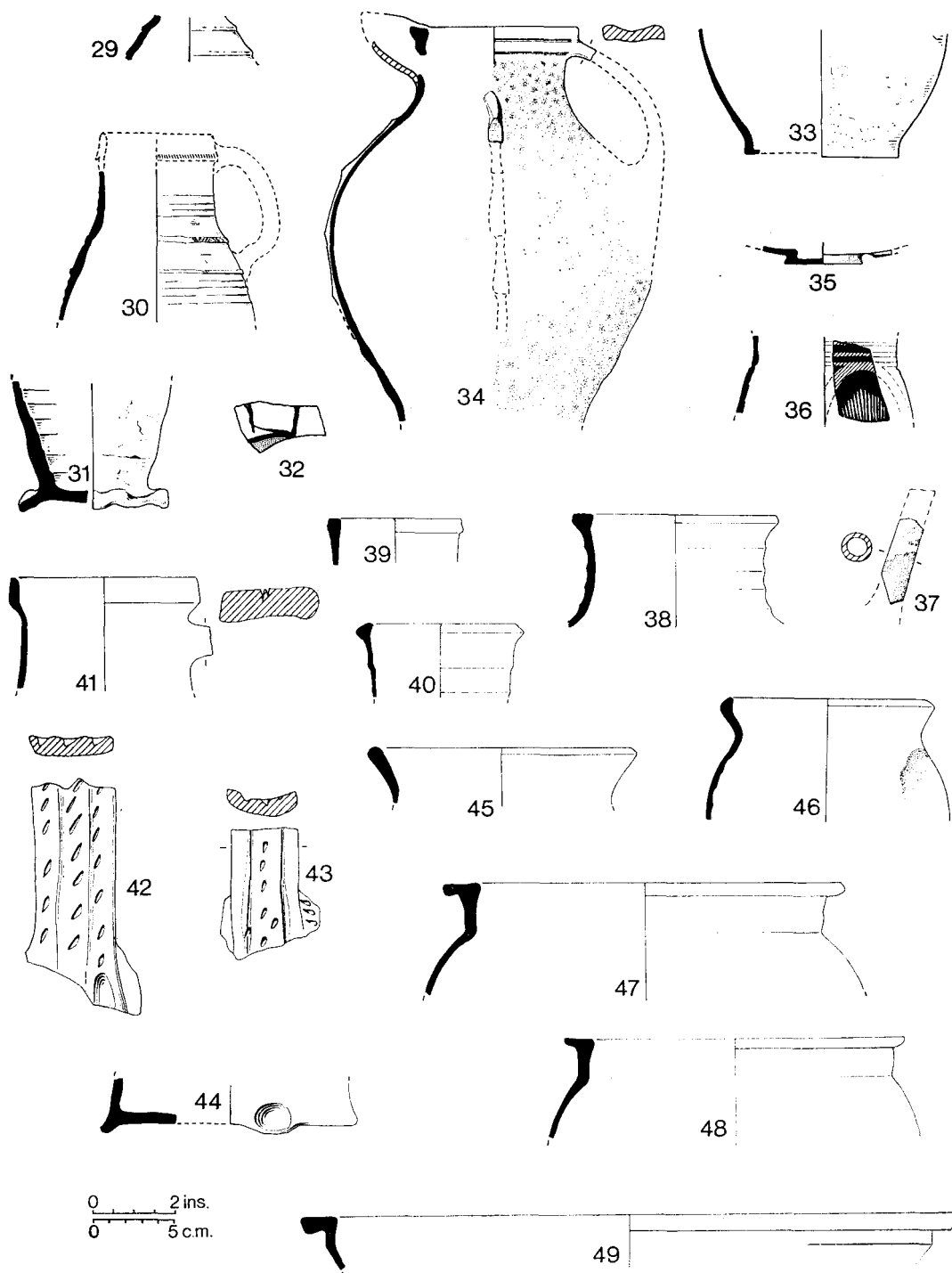


Fig. 6. Custom House Site. Medieval Pottery Group B ($\frac{1}{4}$)

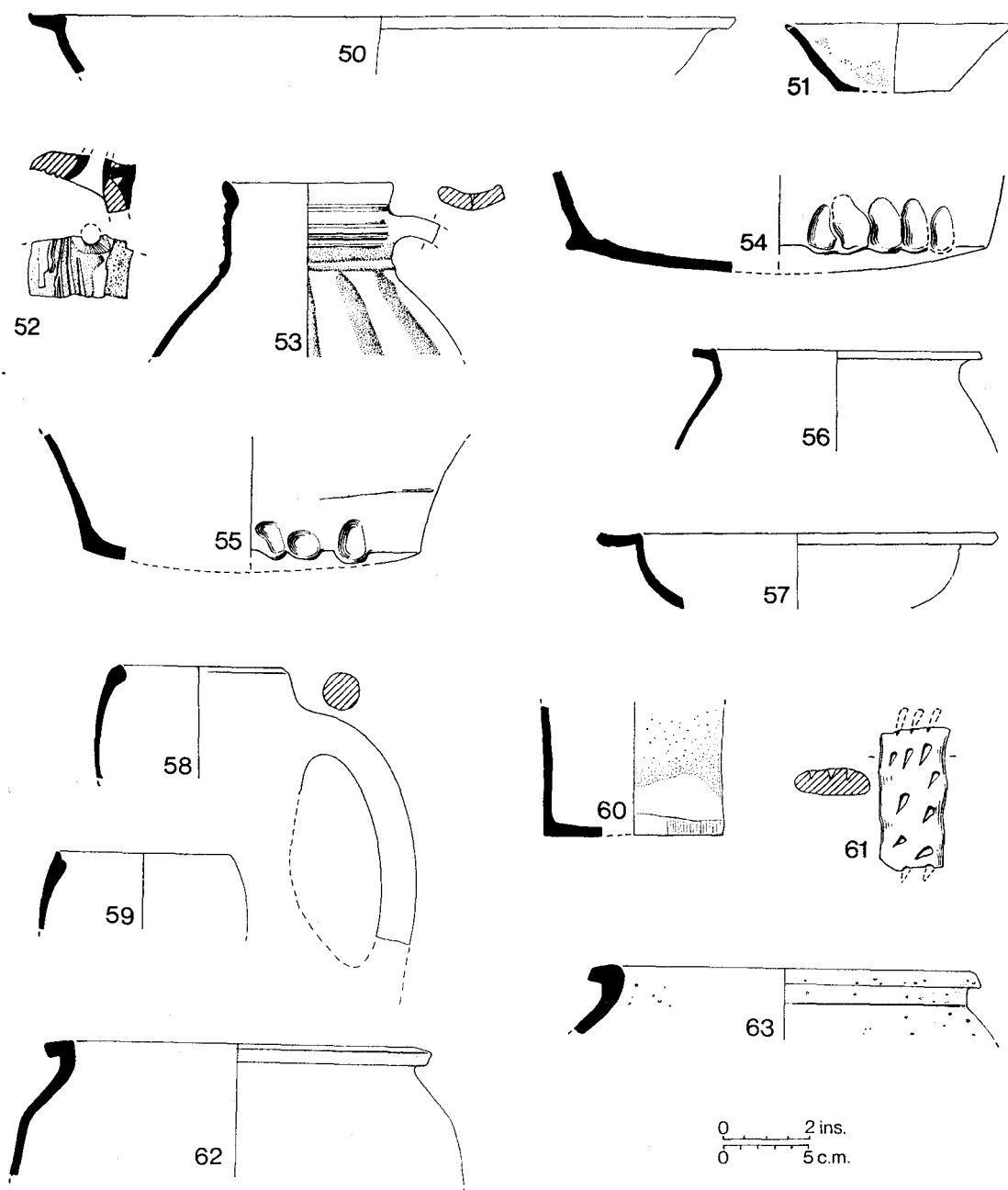


Fig. 7. Custom House Site. Medieval Pottery Group B ($\frac{1}{4}$)

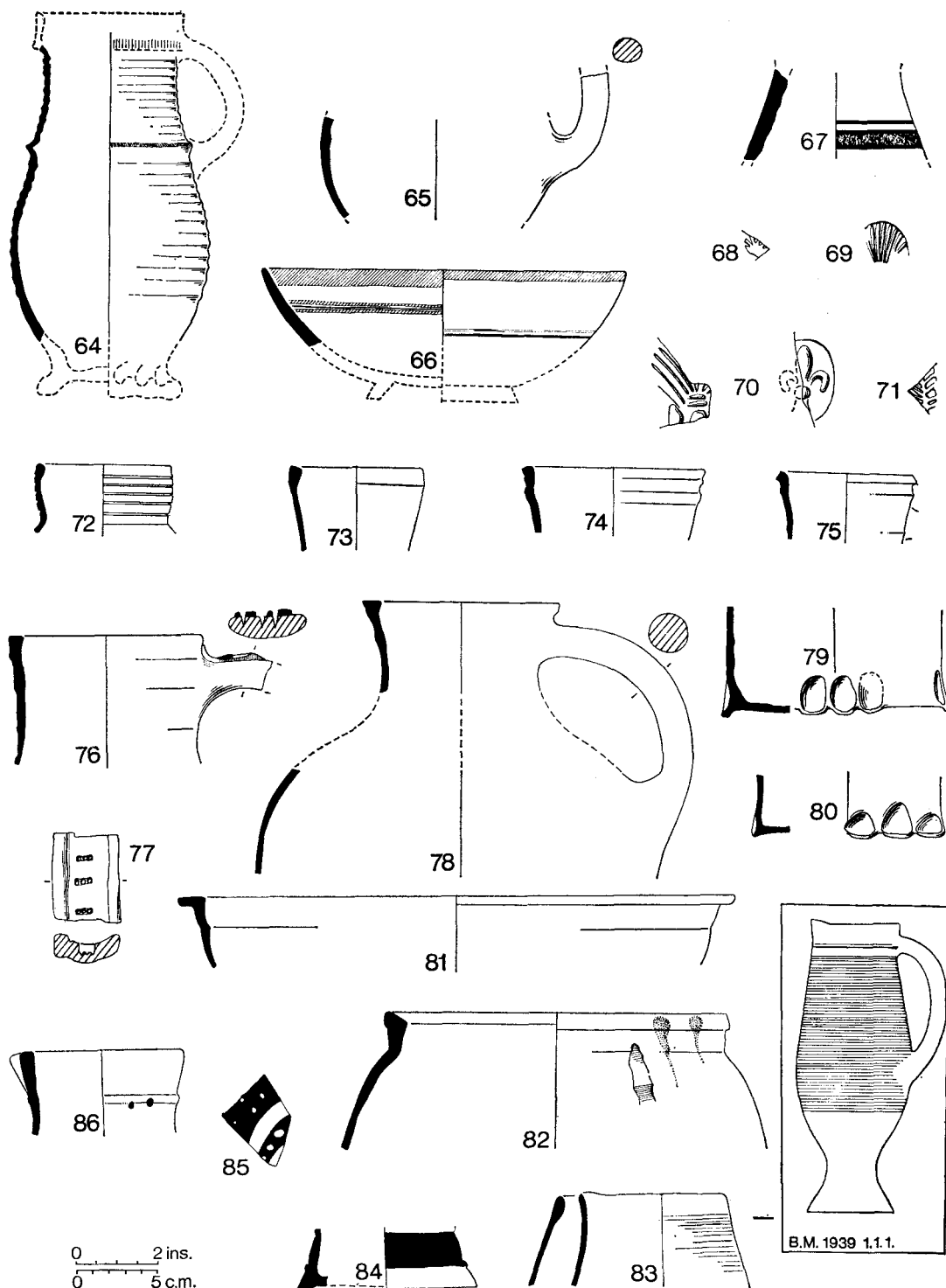


Fig. 8. Custom House Site. Medieval Pottery Group C.1 ($\frac{1}{4}$) (Inset $\frac{1}{8}$)

47. Cooking pot (II-18). Sandy ware, splashed pale green glaze, sooted exterior. Similar in form to a waster found in Trench III-22 at the Eden Street Kiln, Kingston-upon-Thames; cf. Smith (1969).
48. Cooking pot (II-3). Sandy ware, splashed pale green glaze, sooted exterior. Similar example in form was found as a waster in Trench III-38 at the Eden Street Kiln, Kingston-upon-Thames; cf. Smith (1969).
49. Cooking pot (IV-14). Sandy ware, splashed, pale green glaze.

FIG. 7:

50. Cooking pot (II-12). Sandy ware, splashed pale green glaze on interior and sooted exterior.
51. Bowl (IV-53). Sandy ware, clear, pale yellow-green glaze with brown flecks on interior. Similar in form to a waster from Trench II-6 from Eden Street Kiln, Kingston-upon-Thames; cf. Smith (1969).
52. Applied piece (IV-14). Sandy ware, applied pieces on a rim, incised decoration underneath and covered by deep green glaze.

Red ware

53. Jug (IV-25). Sandy red ware, thin, painted white slip decoration under a clear, yellow glaze, applied strap handle which also shows two vertical bands as a border, between which is a continuous line of stab holes.
54. Jug, base sherd (II-10). Dull red, sandy ware, shows a set of five finger impressions, sooted exterior.
55. Jug, base sherd (II-10). Hard, dull, light grey ware, red core showing a set of three finger impressions.
56. Cooking pot rim sherd (IV-26). Hard, fine, red ware, sooted exterior.
57. Flanged dish (II-9). Fine, sandy ware, dull grey surface.

White slipped red ware

58. Jug, rim and rod handle (II-12). Fine, sandy ware, thin, white slip on exterior, similar to 323 (Fig. 19).
59. Jug rim sherds (II-12). Fine, sandy ware, thin, white slip with clear yellow glaze over rim.
60. Jug, base sherds (II-19). Fine, sandy ware, thin, white slipped exterior, clear, brown glaze, splashed under base. A smaller example was found in a deposit at Winchester Palace 1962 (Trench 4, layer 14, 62/8/100). Information from Francis Celoria.

Grey ware

61. Jug, rod handle (IV-14). Light grey, sandy ware, deep diagonal, stabbed decoration.
62. Cooking pot (II-19). Hard, sandy, grey ware.

Shell tempered ware

63. Cooking pot, rim sherd (IV-26). Hard, shelly ware, light grey core, dull, red surface.

FIG. 8:

Group C1 Fill south of Second series of Timber Structure, Tatton-Brown (1974, 132-38).

This group was found in front of the main second period timber structure on the river gravels and peat. Some of the group was robbed; the group was cut by Group B.

Langerwehe (stoneware)

64. Jug (IV-58 and 60). Hard, grey ware, unfused, rilled with rouletted cordon, deep brown Raeren type glaze on exterior.

Normandy ware (lemon yellow glaze)

65. Jug (IV-56). Hard, white ware, red inclusions, buff exterior with clear, yellow, slightly mottled brown glaze.

Andalusia (lustreware)

66. Bowl (IV-58). Similar ware and decoration as described for 152.

Mediterranean majolica

67. Jug? (IV-58). Fine, yellow ware, decorated on exterior with purple mottled thick band, bordered by black bands. This decoration is covered by a clear, watery, pale glaze. The interior now has a black, even coating, possibly a form of slip. A similar piece to this in colour of decoration compares with 153.

White ware

68. Jug, body sherd (IV-50). Fine, light cream ware, raised stamp, decorated with escallop or vannet, green glazed exterior.
69. Jug, body sherds (IV-42 and 51). Sandy ware, raised stamp, decorated with escallop or vannet, mottled green glazed exterior.
70. Jug, body sherds (IV-56 and 60). Sandy ware, weathered surfaces with glaze partly missing, raised stamp decoration of an escallop and fleur-de-lys, mottled green glaze (see also 76).
71. Jug, body sherd (IV-37). Sandy ware showing a raised stamp decoration of a wheatsheaf or fernleaf pattern.
72. Jug, rim sherd (IV-56). Fine, sandy ware, rilled neck covered with a pale, mottled green glaze.
73. Jug, rim sherd (IV-60). Fine, sandy, buff ware, pale mottled green glaze.
74. Jug, rim sherd (IV-56). Fine, sandy ware, olive green glaze.
75. Jug, rim sherd (IV-60). Fine, sandy, buff ware, pale, mottled green glaze.
76. Jug, rim sherds (IV-56 and 60). Fine, sandy ware, a pair of applied spurs with stabbed decoration, mottled glazed surface of pale green glaze. Several body sherds in a similar ware and glaze showed stamped decoration and possibly belong to this jug; cf. 70.
77. Jug, strap handle sherds (IV-39 and 60). Sandy ware, sets of three stabbed holes, pale green glaze.
78. Jug, rim sherd with rod handle (IV-42 and 50). Sandy ware with splashed, mottled green glaze.
79. Jug, base sherds (IV-58). Dull, light grey, sandy core, buff exterior showing sets of three finger impressions, with splashes of light, even, green glaze.
80. Jug base (IV-54). Buff, sandy ware, red inclusions with a pale green glaze.
81. Cooking pot (IV-52). Sandy, buff ware, sooted exterior. A similar piece to this is 191.
82. Cooking pot (IV-58). Hard, sandy ware, patches of pale green glaze, vertical, applied strip, sooted exterior.
83. Reeded jug (IV-44). Fine, sandy ware, pulled lip, continuous, incised rilling, covered with a pale green glaze. Similar forms have been found at Seething Lane (B.M. 1939.1.1.1) (Fig. 8 inset); cf. Rackham (1972, pl. 40). An assumed waster found in Sutton shows incised bands; cf. Jope (1952, 83-84 and Fig. 1), and recently wasters similar to the London example have been found in Trench III-22, Eden Street Kiln, Kingston-upon-Thames; cf. Smith (1969).

Red ware

84. Jug (IV-58). Fine, dull, sandy ware, red slip between cordons with a thin, white slip below lower cordon. Similar base sherds to this are 216-17.
85. Jug body sherd (IV-58). Fine, sandy, red ware, thin, white slip decoration with barbotine.
86. Jug rim sherds (IV-56). Fine, sandy ware, deep brown pellet decoration, light brown, clear glaze.

FIG. 9:

87. Strap handle (IV-42). Fine, sandy, dull ware, clear, light brown glaze, fluted, with two rows of continuous stab holes.

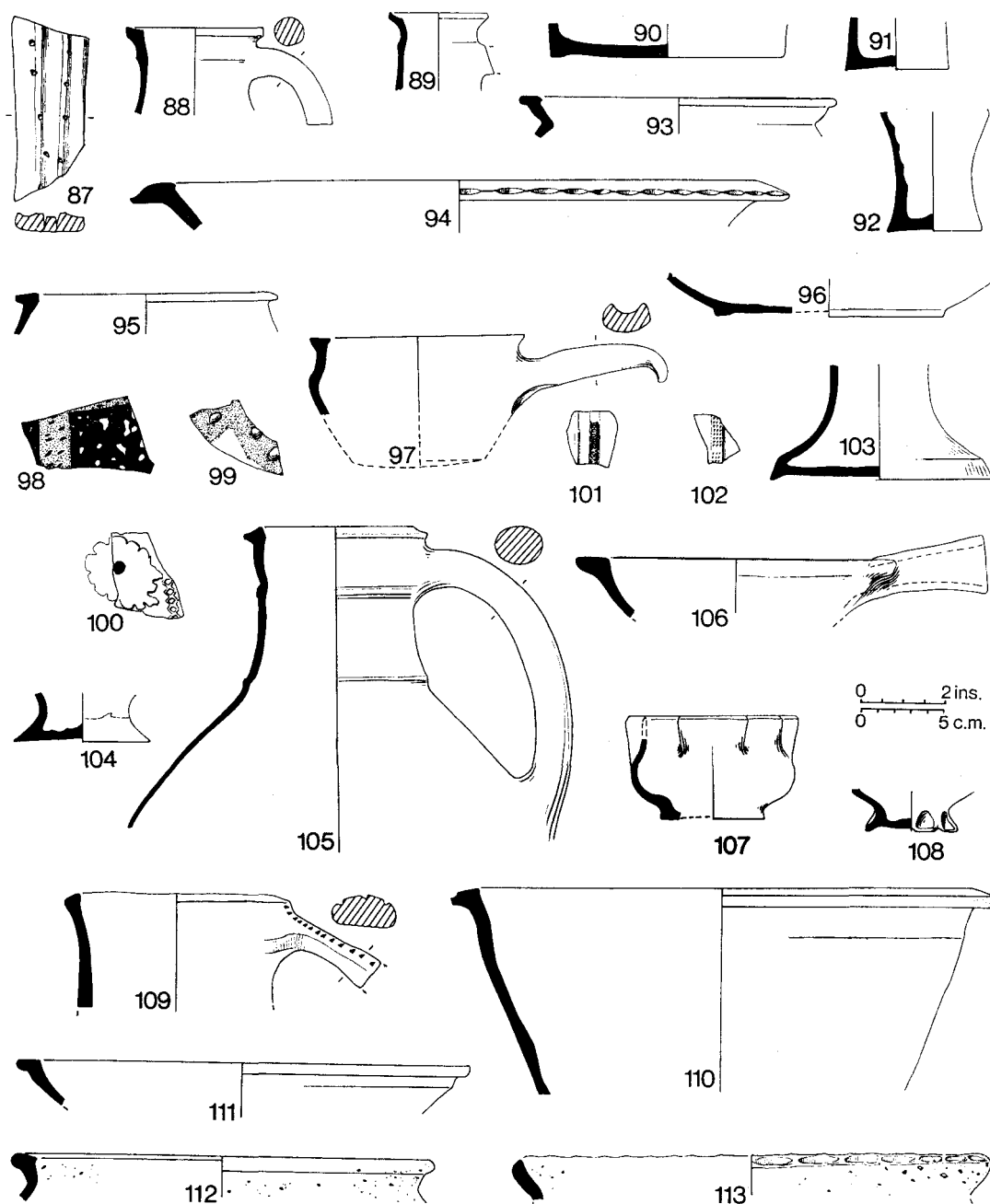


Fig. 9. Custom House Site. Medieval Pottery Group C.I ($\frac{1}{4}$)

88. Jug (IV-60). Fine, sandy, dull ware, unglazed. Similar example to this was found at Blossoms Inn Yard (G.M. 12397) which was associated with a jetton of c. 1300; cf. Dunning (1932). A smaller example was found in a deposit at 244-46 Borough High Street; cf. Celoria (1974, 276 and Fig. 2).
89. Jug (IV-41 and 42). Hard, fine, sandy, dull ware, unglazed, similar examples to which are very common in London, but published examples from London are (L.M. 5-12); cf. Dunning (1940, 215 and Fig. 69), and two examples found in a pit at Windsor Court were associated with a penny of Edward III. The bases to these are identical to 91 and 252 below; cf. Grimes (1956, 119, pl. 20).
90. Jug (IV-60). Fine, sandy ware, clear, splashed, light brown glaze, sooted exterior.
91. Jug (IV-60). Fine, dull, sandy ware, belongs to jugs as mentioned for 89 above.
92. Jug (IV-56). Fine, dull, sandy ware, sooted exterior similar to 257, which is smaller.
93. Cooking pot (IV-54). Sandy, dull ware, sooted exterior.
94. Bowl (IV-56). Sandy, dull ware, discoloured surface through heat, thumb impressed rim.
95. Bowl? (IV-56). Fine, dull, sandy ware, clear, light brown glaze over rim, sooted exterior.
96. Bowl? (IV-58). Dull, brown, sandy ware, splashed, light brown glaze on interior.
97. Pipkin (IV-43). Fine, dull, sandy ware, clear, light brown glaze, sooted exterior. The base is reconstructed from an example found in Group C2; cf. 272.
- White slipped red ware*
98. Body sherd (IV-60). Dull, sandy ware, grey inner margin. The sherd has a dull, white slip, covered by a coating of chocolate brown (shown black), upon which are barbotine blobs of white slip and a border in white, covered with a clear green glaze (shown stippled), decorated with pricked holes.
99. Body sherd (IV-58). Sandy ware, thin, even slip on exterior, showing a zone of deep olive green glaze (shown stippled), upon which are white pellets, and the remaining surface is covered with a clear, pale yellow glaze.
100. Body sherd (IV-58). Sandy ware showing an applied rosette with red pellet and a vertical rouletted strip, the whole surface covered with mottled green glaze.
101. Body sherd (IV-58). Dull, sandy ware, vertical rouletted strip under a deep mottled green glaze.
102. Body sherd (IV-58). Sandy ware with vertical applied strip with grid rouletting under a clear, pale yellow glaze.
103. Jug, base sherd (IV-60). Sandy ware covered with mottled green glaze.
104. Jug, base sherd (IV-60). Fine, sandy ware, partly slipped and covered with deep green glaze.
105. Jug (IV-58). Fine, sandy ware, thick slip, clear, mottled green glaze.
106. Skillet handle (IV-56). Fine, sandy ware, grey core, thick, white slip, pale green glaze on interior, sooted exterior. cf. No. 277.
107. Lobed cup (IV-54 and 60). Fine, sandy ware, thin slip, pale, clear, even green glaze.
108. Lobed cup? (IV-60). Fine, sandy ware, thin coat of white slip and splashed pale green glaze, finger-impressed base.
- Grey ware*
109. Jug (IV-56). Hard, sandy ware, showing three rows of wedge-shaped stabbed holes running along handle.

110. Cooking pot (IV-60). Hard, fine, sandy ware, sooted exterior.
111. Bowl or skillet (IV-56). Hard sandy ware, deep mottled green glaze on interior, sooted exterior. The profile is similar to 106 above.

Shell tempered ware

112. Cooking pot (IV-54). Fine, dull red, shell tempered ware, sooted exterior.
113. Cooking pot (IV-40). Dull ware, some shell tempering.

FIG. 10:

Group C2 Fill north of the Second Series of Timber Structure. (The Organic Layers, Tatton-Brown (1974, 132-38 and Figs. 17, 20, 24-26).)

These organic layers contained the largest range of pottery found, and most of the diagnostic pieces are illustrated. The outstanding items from this group are the Flemish and Mediterranean imports, Nos. 114 and 153, a figured jug No. 223, a fragment of a waster No. 282 and a salt in the form of a figurine, No. 341.

Flemish ware

114. Cooking pot (XV-14). Light red ware, fine sand tempering, clear, pale brown glaze over rim and handle. This piece seems to correspond to nearly complete examples found in London. One of these was found at Goldsmiths House (G.M. 23849) (Fig. 10 inset) and the other was from St. Swithin's House in Pit 80 (G.M. 18398) with white wares such as a jug, three cooking pots, a money box and a French import of a small handled cup.

Brunssum/Schinveld stoneware

115. Jug (IV-24). Light grey ware, rouletted stamp decoration, thin, light brown glaze on exterior. The straightness of the neck and delicate rouletting is similar to jug wasters from Schinveld dated late thirteenth-early fourteenth century; cf. Bruijn (1966, Pl. 53).

Siegburg (stoneware)

116. Jug (V-8). White ware, red inclusions, exterior covered with a thin, light brown glaze.

Siegburg (earthenware)

117. Jug (VII-10). Dark grey ware, small white inclusions, dull purple exterior. Some wasters from Brunssum show similar white inclusions in the ware.
118. Cooking pot? (VI-26?). Light grey ware, purple-brown inclusions which appear like blisters on surface, light finger impressions over rim and handle.

Andenne ware

119. Jug (VII-10). Smooth, white ware, impressed rouletting under a clear, yellow slightly mottled brown glaze. This piece is reminiscent of a decorated twelfth century jug found at Andenne (Fig. 10 inset); cf. Borremans (1966, 51 and Pl. 12, Fig. 21).
120. Jug (XIV-3). Similar ware, pink core, impressed rouletting under clear, orange glaze. Comparative pieces (G.M. 21335 and G.M. 18410) both found at the Sun Life Assurance Company, Cheapside.
121. Body sherd (XII-5). Dull, white ware, applied strip and pellet in white ware, covered with shiny green glaze.

Normandy ware (lemon yellow glaze)

122. Jug (XII-5). Fine, white ware, glazed on exterior and over rim.
123. Jug (XIV-15). Similar ware but with white inclusions and glaze on exterior.
124. Jug (XII-5). Similar ware, white inclusions, incised lines over which is an applied rouletted strip decoration.

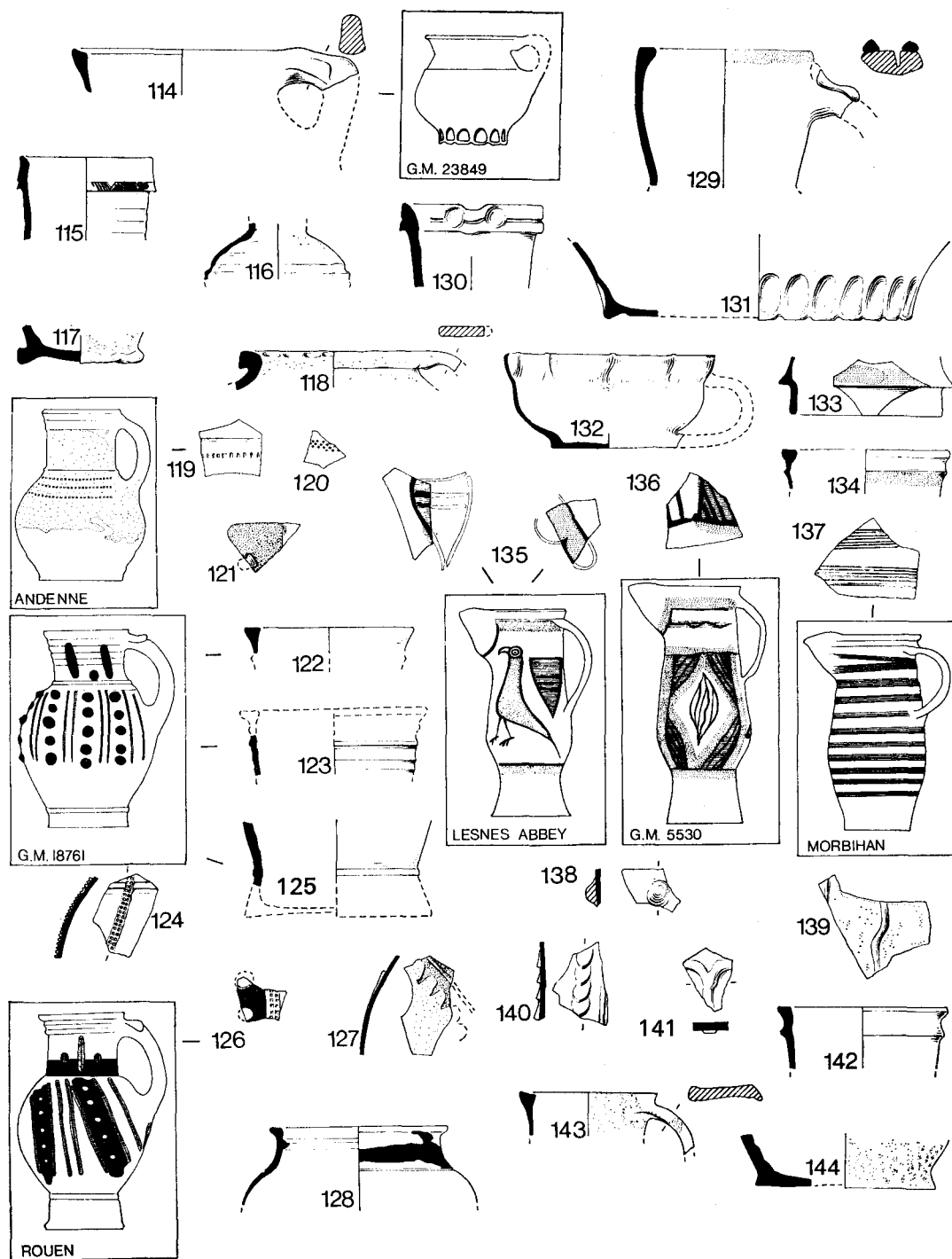


Fig. 10. Custom House Site. Medieval Pottery Group C.2 ($\frac{1}{4}$) (Insets $\frac{1}{8}$)

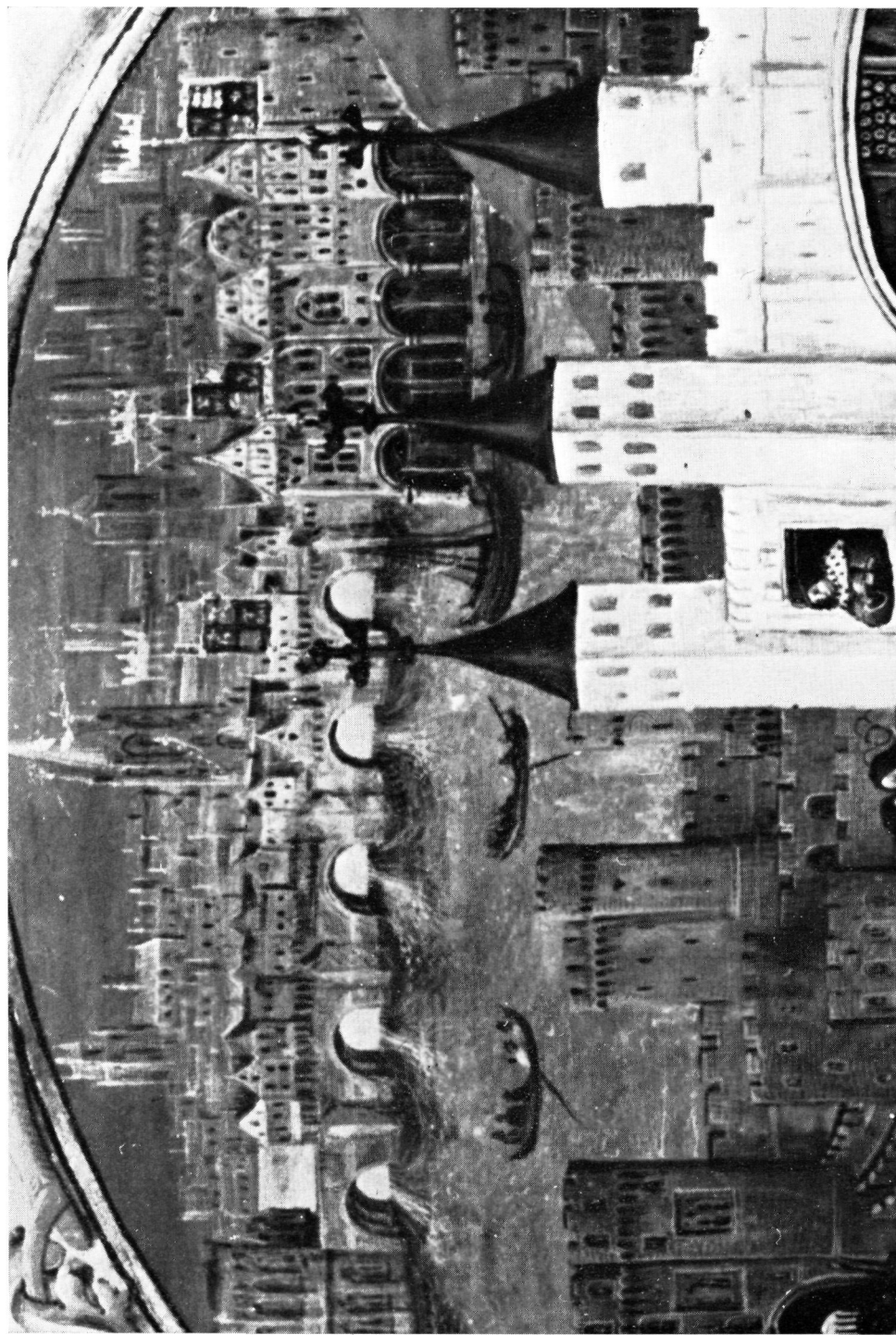


Plate 1. Custom House Site. Detail of an illuminated miniature from the *Poems of Charles Duke of Orleans* (British Museum. MS Royal 16E.ii, f. 73).

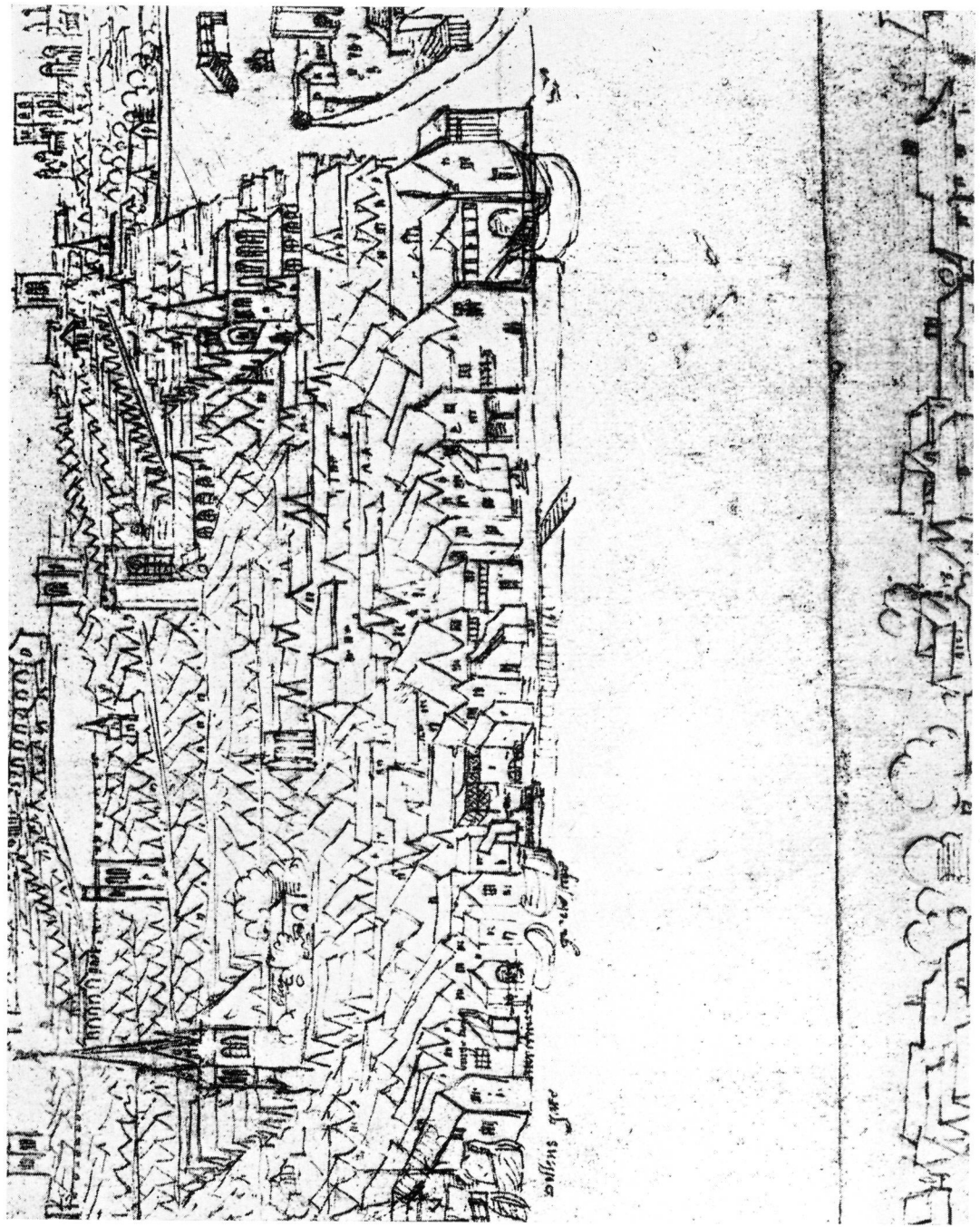


Plate 2. Custom House Site. Detail from Wyngarde's view of London from the south, c. 1558, showing the Custom House behind the crane immediately east of the watergate.



Plate 3. Custom House Site. "Trait-de-Jupiter" scarf joint from the ground plate of the second period medieval waterfront. (Scale in cms.).



Plate 4. Custom House Site. 14th century shoe (stitching reconstructed) (p. 155 No. 1, see text for measurements).



Plate 5. Custom House Site. 14th century shoe (stitching reconstructed) (p. 155 No. 2, see text for measurements).

125. Jug (XIV-4). Similar ware, white grit inclusions, raised cordon on restriction. The ware and colour of glaze compare extremely well with a jug (G.M. 18761) found in a medieval pit at the Salters Hall, Walbrook (Fig. 10 inset) which is also decorated with red, rouletted strips and pads. It also seems to compare with a fragment discovered at Waterbeach Abbey which was inhabited for a short period, c. 1294-1351; cf. Dunning (1966, 87-89 and Fig. 8).

Normandy ware (iron wash decoration)

126. Jug, body sherd (XIV-4). Smooth, white ware, brick red iron wash on exterior, decorated with white clay pellets and rouletted strips, covered with clear, yellow glaze. This piece is reminiscent of decoration on a jug found in Rouen in 1864; cf. Barton (1965, 75, 79 and Fig. 1). A similar jug to both was found at Sutton Courtenay, Abingdon (B.M. 1910, 5-5-4).
127. Jug (XV-13). Smooth, white ware, red inclusions, decorated externally with an applied scale motif in brick red clay, covered with green glaze which appears dull, mottled brown on applied piece.
128. (V-8). Smooth, pink ware, red and white inclusions, brick red iron wash below rim with remaining area covered with deep yellow clear glaze.
- Isle de France (bichrome glaze)*
129. Jug (VII-10). White ware, red inclusions, applied strap handle with stabbing, applied spurs. The exterior is covered with dark yellow-green glaze with brown specks.
130. Jug (XV-17 and 21). Similar ware, pulled spout, deep green glaze on exterior, pale yellow-green glaze on interior.
131. Jug (XV-19). Similar ware lacking inclusions, continuous thumbled base with patchy, pale yellow glaze on exterior and under base.
132. Lobed cup (III-10). White ware, pinched lobes, rod handle, deep mottled green glaze on exterior with pale yellow glaze on interior. A similar lobed cup of larger proportions (G.M. 5906) found in London and having on the interior a roughly-modelled figure of a stag and trees, and pinched lobes with strap handles is also in a bichrome glaze of green and yellow, but it contains a large proportion of sand tempering in the ware, this possibly indicating a Surrey origin rather than an import for manufacture.

Saintonge (polychrome)

133. Lid? (III-10). Smooth, white ware, red inclusions, green band covered with clear glaze.
134. Jug (III-10). Similar ware, green band under rim covered with clear glaze.
135. Jug, body sherds (III-10). Similar ware, decorated with a shield in yellow and trefoil in light, even green, both sherds are outlined in purple-brown and covered with a clear coloured glaze. The shape of these sherds seems to indicate a straight-sided jug, possibly like a jug found in a wardrobe at Lesnes Abbey, Kent, (Fig. 10 inset); cf. Dunning (1966, 4-5 and Fig. 4).
136. Jug (III-10). Similar ware, decorated with corner geometric motif in yellow outlined in purple-brown, bordered with green and covered in clear glaze. This piece seems reminiscent of a motif used as a corner motif on a jug (G.M. 5530) found in Bishopsgate Street (Fig. 10 inset); cf. Dunning (1933, 130 and Fig. 13B).

Saintonge (mottled monochrome glaze)

137. Barrel-shaped jug (XIV-4). White ware, pink core, sets of seven evenly spaced, incised lines, mottled green glaze. A comparative jug (Fig. 10 inset) was found at Chapelle de Saint Clement, Quiberon, Morbihan; cf. Dunning (1968, 46 and Fig. 23). An

example with a single spiralled, incised line was recovered at Cardiff; cf. Dunning (1933, 114 and Pl. XXVII).

138. Body sherd (V-8). Pink tinted, white ware, applied cone, exterior covered with clear mottled green glaze.
139. Body sherd (XIV-15). Similar ware, applied thin, wavy, vertical strip, externally covered with bright, mottled olive green glaze.
140. Body sherd (XII-4). White ware, applied overlapping scale-shaped pieces, exterior covered with a deep olive green glaze, interior mottled light green glaze.
141. Body sherd (XIV-4). Similar ware, applied strip covered in mottled green glaze with brown specks.
142. Jug (XIV-26). White ware, clear, light mottled green glaze.
143. Jug (XV-13). Similar ware, strap handle with splashes of mottled green glaze.
144. Jug (I-12). Similar ware, mottled green glaze on exterior. This base would seem likely to belong to a jug of No. 34 in type.

Fig. 11:

145. Jug (V-8). Similar ware with mottled green glaze. This shape would seem to belong to a tall jug.
146. Jug (I-13). Similar ware, light, clear mottled green glaze with incised line at base.
147. Jug (V-8). Similar ware, thin, mottled green glaze on exterior, sooted base.
- Saintonge (unglazed)*
148. Jug (XVI-6). White ware, splashes of light green glaze.
149. Strap handle (XIV-4) (Section only). Similar ware, splashed pale yellow glaze.
150. Body sherd (XV-13). Similar ware, applied strip, continually pressed along its length.
151. Pégau spouted pitcher (V-13). Similar ware, splashes of green glaze, sooted exterior. The shape in general seems to compare with a more highly decorated piece from Southampton; cf. Dunning (1968, 46 and Fig. 23).

Andalusia (lustreware)

152. Bowl (VII-10). Pink ware, red inclusions, tin-glazed interior, decorated lustre now faint and blue indistinct. This piece compares in shape with one found in Leadenhall Street (L.M. A20334) on which reconstruction is based. This shape of bowl compares with examples considered to be products made at Malaga during the first half of the fourteenth century; cf. Frothingham (1951, 14 and Figs. 6-7).

Mediterranean majolica

153. Body sherd (I-12). White ware with small, black inclusions, decorated on exterior with a zone of purple, outlined border deep brown, and a chain motif outlined in the same colour, with green dots in the middle. A similar piece in ware to this is 67. The ware and colours used in decoration are reminiscent of Italian majolica of Florence of the fifteenth century.

White wares

154. Jug body sherd (I-13). Fine ware, rouletted strip decoration covered with deep olive green glaze (shown stippled), remaining area covered with clear, yellow glaze. A similar decorated jug from London (G.M. 5633) shows a straight-necked and squat-bodied jug.
155. Jug body sherd (V-13). Sandy ware, dull, red strip decoration, clear, yellow glaze.
156. Jug body sherd (VII-10). Sandy ware, dull, red strip decoration, olive green glaze on yellow.
157. Jug (III-10). Sandy ware, applied strip with lobe, covered with green glaze, possibly an anthropomorphic jug.

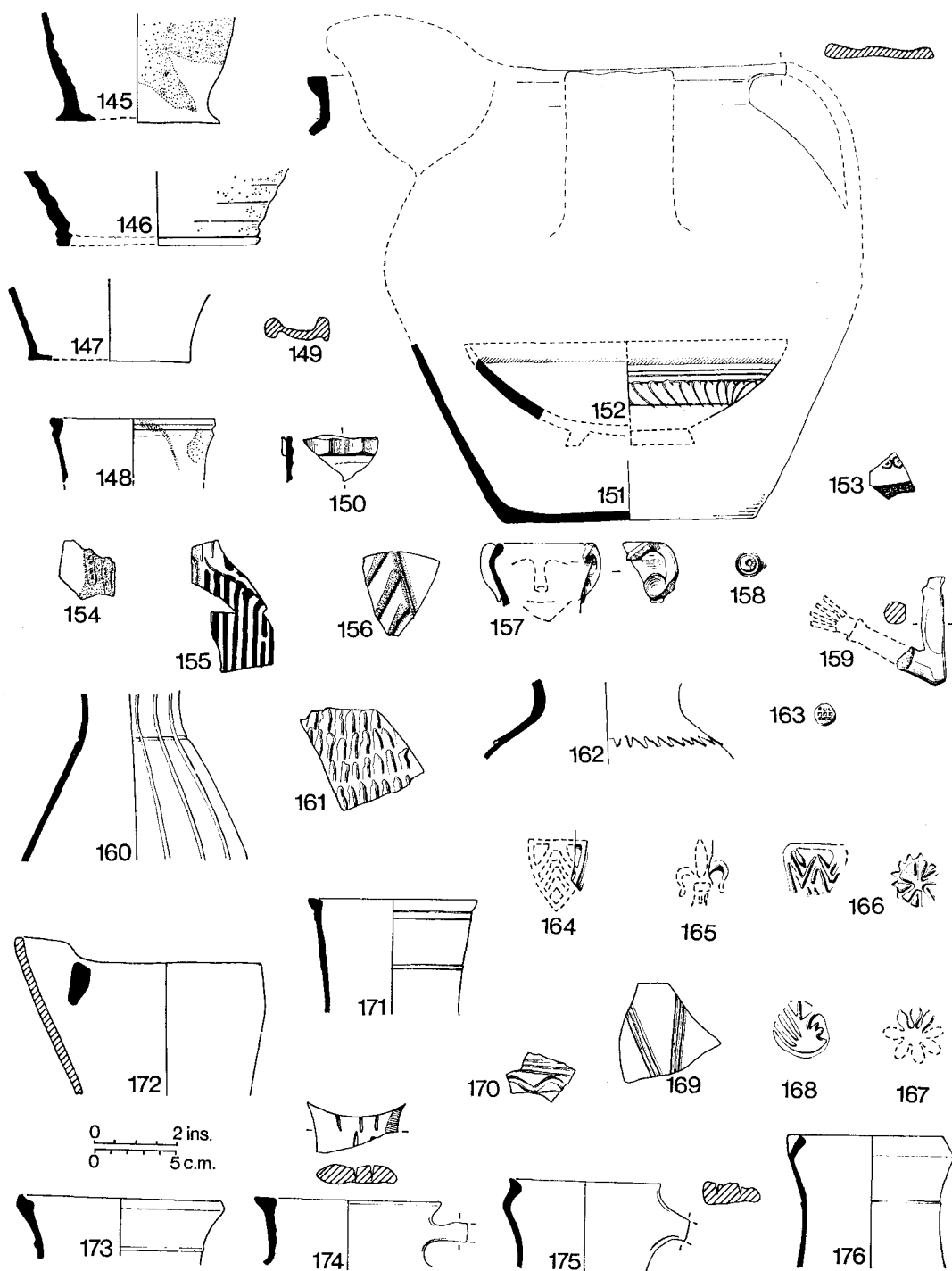


Fig. 11. Custom House Site. Medieval Pottery Group C.2 ($\frac{1}{4}$)

158. Jug, body sherd (V-12). Sandy ware, ring dot decoration covered with light green glaze.
159. Jug (V-13). Sandy ware, left arm bent upwards with finger impression on shoulder. The reconstruction showing the method of attachment is based on an example in L.M. (A16773); cf. Dunning (1940, 214 and Pl. LXII).
160. Jug (I-12). Sandy ware, white slipped, strip decoration covered with green glaze.
161. Jug body sherd (I-12). Sandy ware, applied vertical, white, scale pattern.
162. Jug (V-12). Sandy ware, applied, continuous fringe of white scale pattern.
163. Jug body sherd (II-10). Sandy ware, applied dull red ware pad, grid stamped and covered with pale yellow glaze.
164. Jug body sherd (III-10). Sandy ware, heraldic stamp decoration covered with green glaze. Comparison with a more complete example seems to indicate that the die is identical on a jug found in Northumberland Alley (G.M. 5618), showing a shield with three chevrons; cf. Thorn (1972, 372 and Fig. 1).
165. Jug, body sherds (VII-10). Sandy ware, heraldic fleur-de-lys partly surviving which seems to correspond to stamped decoration used on a jug found at Trinity Court (G.M. 5613), showing heraldic motif of fleur-de-lys, a shield of three chevrons and a vannet or escallop. These three dies have been found on other forms of jugs in London. At Ely Palace (V. & A. 596-1906) a tall jug showed only shields, and an incomplete jug was found in Mincing Lane (B.M. B114) which showed the fleur-de-lys and vannet or escallop; cf. Thorn (1972, 372 and Fig. 1).
166. Jug body sherds (XVII-15-17). Sandy ware, stamped heraldic shield with chevronny motif and a petalled rosette.
167. Jug body sherd (VII-10). Sandy ware, stamped petalled rosette.
168. Jug body sherd (VII-10). Sandy ware, stamped debased design of a vannet, escallop or leaf pattern.
169. Jug body sherd (I-13). Sandy ware, incised three pronged comb pattern and mottled green glaze.
170. Jug body sherd (VII-10). Sandy ware, incised combed and wavy pattern.
171. Jug (III-10). Sandy ware, slightly raised cordons covered with green glaze.
172. Jug (VII-10). Sandy ware with spout, covered in an even, deep green glaze.
173. Jug (III-10). Sandy ware, raised cordon, covered with green glaze.
174. Jug (XV-15). Sandy ware, applied strap handle with slashed, stabbed holes in rows, covered with green glaze.
175. Jug (I-12). Sandy ware, impressed spur on strap handle with slashed, stabbed holes. The ware of this jug corresponds to that of wasters of the Eden Street Kiln, Kingston-upon-Thames; cf. Smith (1969).
176. Jug (VI-25). Hard, white ware, pulled out spout covered with a sparse green glaze.
- FIG. 12:
177. Jug, strap handle (XV-11). Sandy ware, with incised and stabbed decoration covered with pale green glaze.
178. Jug, strap handle (VII-10). Sandy ware, with incised and stabbed decoration covered with pale green glaze.
179. Jug (XV-11). Sandy ware covered with green glaze. A similar example to this was found as a waster from Trench II-30 at Eden Street Kiln, Kingston-upon-Thames; cf. Smith (1969).
180. Jug (V-11). Fine, sandy ware, rilled exterior with pear-shaped finger impression at base of rod handle. An example corresponding to this was found in Lothbury in 1926 (Fig. 12 inset); cf. Christies (1973, 16 and Pl. 3).
181. Jug (XII-3). Fine, sandy ware, rouletted, herringbone motif along handle, pale yellow glaze, weathered surface.
182. Jug (XV-11). Sandy ware, continuous finger impressions around base. A similar jug to this decorated with rosettes was found at Ingledew and Davenport Pit 2, Southwark; cf. Dunning (1959, 90-92 and Fig. 27).
183. Jug (VII-10). Fine, sandy ware, five slightly lobed feet showing sets of three and four lightly fingered impressions. Mottled green glaze under base.
184. Jug (III-10). Sandy ware, lightly finger-impressed base.
185. Jug (VII-10). Sandy ware, fluted base, knife trimmed, covered with a thick, dull green glaze. A jug found in London (Fig. 12 inset) (G.M. 5615) shows the beginning of a fluted base, possibly the form of body to which this base was attached.
186. Jug (XV-22). Hard, sandy ware, ring base, with green glaze underneath.
187. Cooking pot (III-10). Sandy ware, green glaze with brown flecks inside rim. A possible comparison piece to this is an incomplete cooking pot found in London (G.M. 5940) (Fig. 12 inset), which shows tripod feet and rod handle. Similar rim forms have been found as wasters in Trench III-23 at Eden Street Kiln, Kingston-upon-Thames; cf. Smith (1969).
188. Cooking pot (I-12). Rough, sandy ware, thin, clear yellow flecked brown glaze over inside with sooted exterior.
189. Tripod leg, incomplete (V-11). Sandy ware, fluted with rows of stabbed holes along its length, unglazed, sooted exterior.
190. Dish (III-10). Sandy ware, applied baffle with pushed-in hole near, combed rim with pinched spout. It is possible that this piece had two side loop handles, as a similarly decorated piece was found in Group A3; cf. No. 8.
191. Cooking pot (VI-26). Sandy ware, splashed glaze on interior. A similar piece to this is 81, and examples of these with slightly different rims were found at St. Swithin's Pit 64 (G.M. Unacc.) (Fig. 12 inset), showing the inside base covered with clear, mottled green glaze and exterior covered with soot.
- FIG. 13:
192. Cooking pot (V-13). Sandy ware, splashed glaze on interior, sooted exterior.
193. Cooking pot (VI-26?). Sandy ware, strip decoration, lightly pressed on exterior, splashed green glaze on inside rim.
194. Cooking pot (I-13). Hard, sandy ware, pale yellow-green opaque glaze on interior. A similar rim form has been found as a waster in Trench II-3 at Eden Street Kiln, Kingston-upon-Thames; cf. Smith (1969).
195. Cooking pot (IV-48). Sandy ware, splashed clear yellow glaze over rim and sooted exterior.
196. Cooking pot (V-15). Sandy ware, splashed green glaze on exterior. A similar example to this was found at Lloyd's Bank at Lime Street (G.M. 23703).
197. Cooking pot (XV-16). Sandy ware, sparse splashed green glaze on interior, pulled spout, rilled and soot-covered exterior.
198. Skillet (IV-48). Fine, sandy ware, completely green glazed interior, sooted exterior with remains of tripod leg, stabbed along its length. Evidence for handle and lip do not survive.

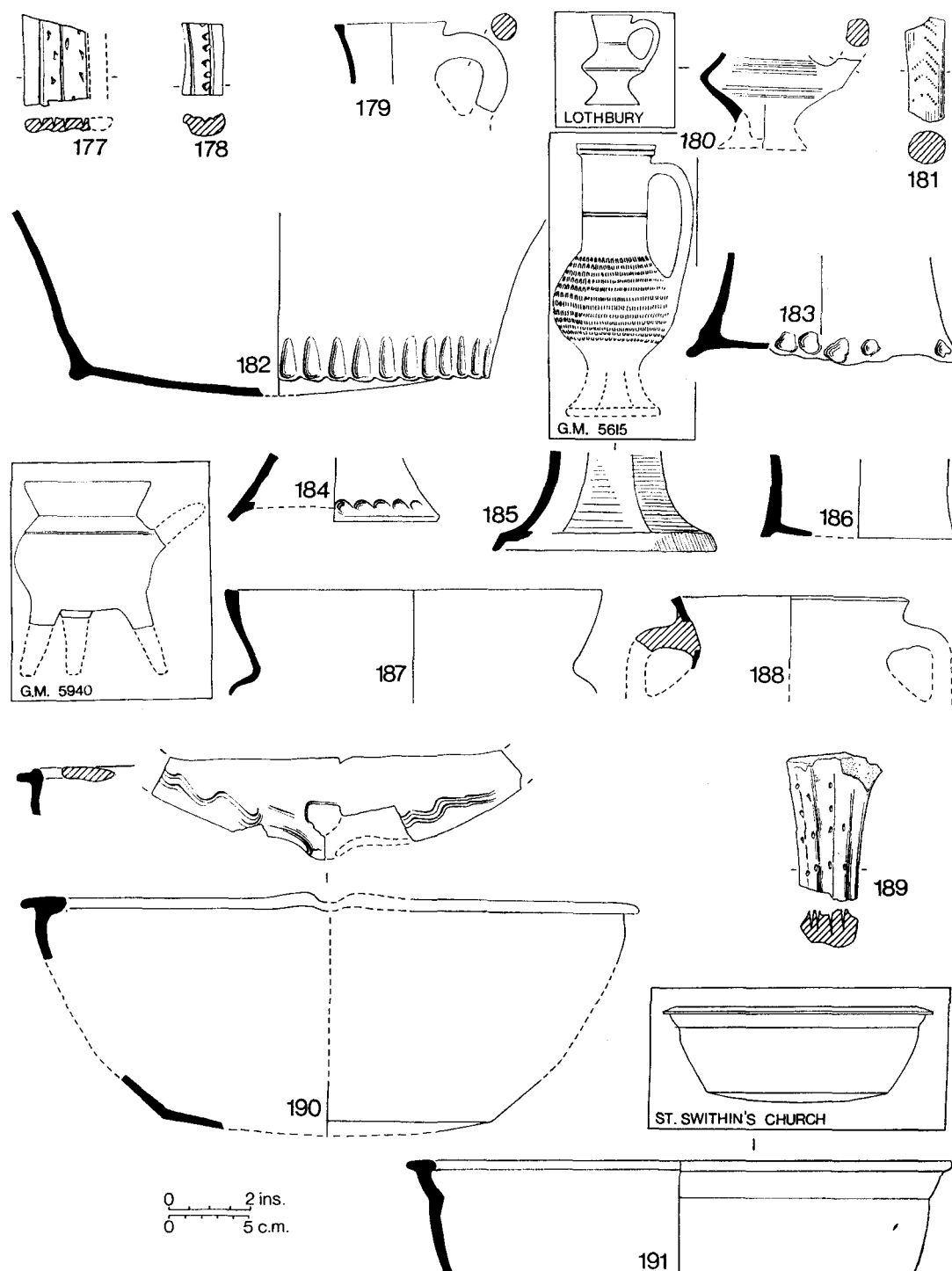


Fig. 12. Custom House Site. Medieval Pottery Group C.2 ($\frac{1}{4}$) (Insets $\frac{1}{8}$)

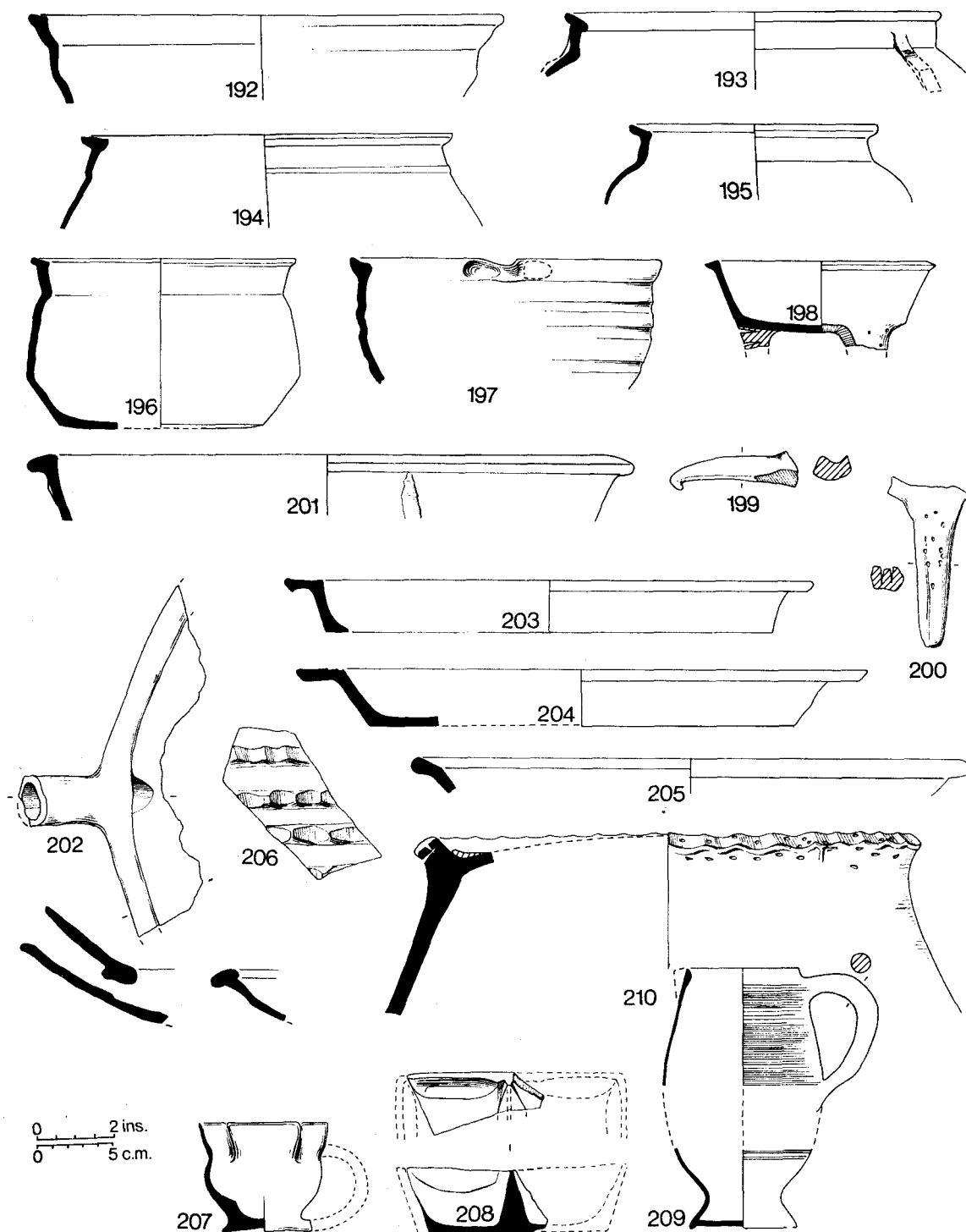


Fig. 13. Custom House Site. Medieval Pottery Group C.2 ($\frac{1}{4}$)

199. Skillet handle (V-8). Fine, sandy ware, fluted, covered with thin, green glaze. This type of handle is commonly found on shapes like Nos. 97 and 272.
200. Tripod leg (V-11). Sandy ware, slightly fluted with random stabbed holes. This type would be suitable for small cooking pots like 188 and 198.
201. Cooking Pot (V-15). Sandy ware, applied strip decoration lightly pressed on exterior, sooted exterior.
202. Dripping pan (I-12). Sandy ware, pale yellow-green glaze on interior, soot-covered exterior. A near-complete example was found in a fifteenth century cellar in Post Office Court (G.M. 16,748) which is "D" shaped, and more recently at Waltham Abbey from river bed, and is considered not earlier than c. 1350; cf. Huggins (1970, 141-43 and Fig. 55).
203. Flanged spacer? (III-10). Sandy ware, pale yellow-green glaze on interior, soot-covered exterior. A similar example and smaller is 361, which is in grey ware.
204. Dish (V-13). Sandy ware, green glazed with brown flecks on interior, sooted exterior.
205. Dish (VI-25). Sandy ware, unglazed, sooted exterior.
206. Storage jar? sherds (V-11, 13 and VI-25). Sandy ware, applied strip, finger-impressed continuously, and covered with deep green glaze.
207. Lobed cup (XV-16). Sandy ware, strap handle, dented lobes, completely covered in mottled green glaze.
208. Dish (V-13). Sandy ware, knife-trimmed, divider in middle? with mottled green glaze.
209. Reeded jug? (I-13). Fine, sandy ware, incised rilling, completely covered with green glaze. A more common form is No. 83 (Fig. 8 inset).
210. Cover? (I-12). Hard, sandy ware, strip decoration, radiating at eight points around inside top, with continuously thumbled rim with stabbed holes, thin, pale green glaze.

Red ware

FIG. 14:

211. Jug (XII-3). Fine, sandy ware, fluted handle with applied leaf-shaped spurs, discoloured, light brown glaze, weathered surface. This is similar in form to the Lime Street Jug (Fig. 14 inset) (Dunning, 1940, 224).
 212. Jug, neck sherd (XI-2). Fine, sandy ware, deep brown slip (shown black) bordered by white slip and decorated with white pellets, clear, yellow glaze on exterior.
 213. Jug, body sherd (XIV-4). Fine, sandy ware, applied white strip and pellets under a clear, yellow glaze.
 - 214 and 215. Jug body sherds (XI-4 and XIII-3). Fine, sandy ware, deep brown slip (shown black), bordered by white slip and white pellets.
 216. Jug (XV-17). Fine, dull, sandy ware, patches of pale mottled glaze.
 217. Jug (XIV-5). Fine, dull, sandy ware, patches of pale, mottled glaze on exterior. cf. No. 84.
- The sherds above (211-17) are similar to a jug found at Lime Street (Fig. 14 inset); cf. Dunning (1940, 224 and Pl. LXIII), which is reminiscent of jugs found at Rouen in Normandy ware (see No. 126 (Fig. 10 inset); cf. Barton (1965, 75, 79 and Fig. 1).
218. Jug (XI-4). Fine, sandy ware, raised, red band of slip alternating with a white band of slip, possibly in a trellis pattern. Even, thin, pale yellow glaze.
 219. Jug (XII-3). Fine, sandy ware, covered on exterior with a deep red wash, decorated in white slip and clear, yellow glaze.
 220. Jug (XII-3). Hard, sandy ware, vertical, raised strip decoration with pellets in red ware and covered with a yellow glaze.

221. Jug (XII-3). Fine, sandy ware, lattice pattern in white slip covered with clear, light brown glaze.
 222. Jug (XII-3). Sandy ware, lattice pattern in white slip with red applied pellet at crossing, covered with clear yellow glaze.
 223. Jug (V-13). Fine, sandy, buff ware, applied strip decoration and a part of the right hand, covered with deep, thick, green glaze. This piece is not an indigenous product of the London area. It may be a product of the Scarborough area, and possibly represents an anthropomorphic piece.
 224. Jug (XIV-5). Hard, sandy ware, raised strip decoration covered with clear, green glaze.
 225. Jug (XII-4). Sandy ware, applied scale pattern in red ware covered by a clear, lustrous, yellow-green glaze.
 226. Jug (XII-3). Fine, sandy ware, applied scale pattern in same ware, bordered by bands of white slip and covered with clear, pale green glaze.
 227. and 228. Jugs (XI-4 and XII-4). Fine, sandy ware, applied scale pattern in same ware covered with clear, pale green glaze.
 229. Jug (XIV-4). Sandy ware, incised decoration, pale green glaze.
 230. Jug (XI-3?). Sandy ware, decorated with bands of white and red slip, covered with a clear, dull green glaze. Similar jugs to this have been found in London at Basinghall Street (Fig. 14 inset); cf. Rackham (1973, Fig. 51), but it is more similar to a decorated example from the Guildhall Extension site Pit 42 which contained a square timber feature filled with other similar undecorated forms and is considered to date to the early thirteenth century; cf. Marsden (1968, 13 and Pl. 3, Fig. 8). The base to this type of jug was generally sagging, as No. 248.
 231. Jug (XIV-5). Fine, sandy ware, strap handle now missing, covered with light brown glaze, identical in form to 230 above.
 232. Jug (XIII-3). Sandy ware, strap handle, exterior covered with clear, light brown glaze.
 233. Jug, strap handle (XIII-3). Fine, sandy ware, shows impressed decoration and covered with clear, brown, mottled green glaze.
 234. Jug (I-13). Fine, dull, sandy ware, rod handle, unglazed. A similar example to this was found at St. Martin-le-Grand (Fig. 14 inset) (G.M. 5643), which is similar to 88, from Group C1.
 235. Jug (XIV-3). Sandy ware, sparse, clear, yellow glaze on exterior.
 236. Jug (III-10). Sandy ware with signs of rod handle, unglazed.
- ##### FIG. 15:
237. Jug (XI-2). Sandy ware, continuously finger-impressed base with pale yellow glaze underneath.
 238. Jug (I-12). Sandy ware, continuously finger-impressed base with pale yellow glaze on exterior.
 239. Jug (III-10). Fine, hard, sandy ware, continuously finger-impressed base with pale yellow glaze on exterior.
 240. Jug (V-13). Dull, fine, sandy ware, continuously finger-impressed base with patches of yellow-brown glaze. Identical jugs were found in Guildford, Surrey, in the High Street, on the site of Angel Inn; cf. Rackham (1973, Pl. 21, Fig. 15 inset), and more recently another was found in chalk rubble filling an old quarry tunnel on the site of the White Hart Inn; cf. Holling (1964, 102-3 and Fig. 3). In both cases the upper part shows an incised heraldic motif.
 241. Jug (V-48). Fine, sandy ware, lightly fingered base, unglazed.

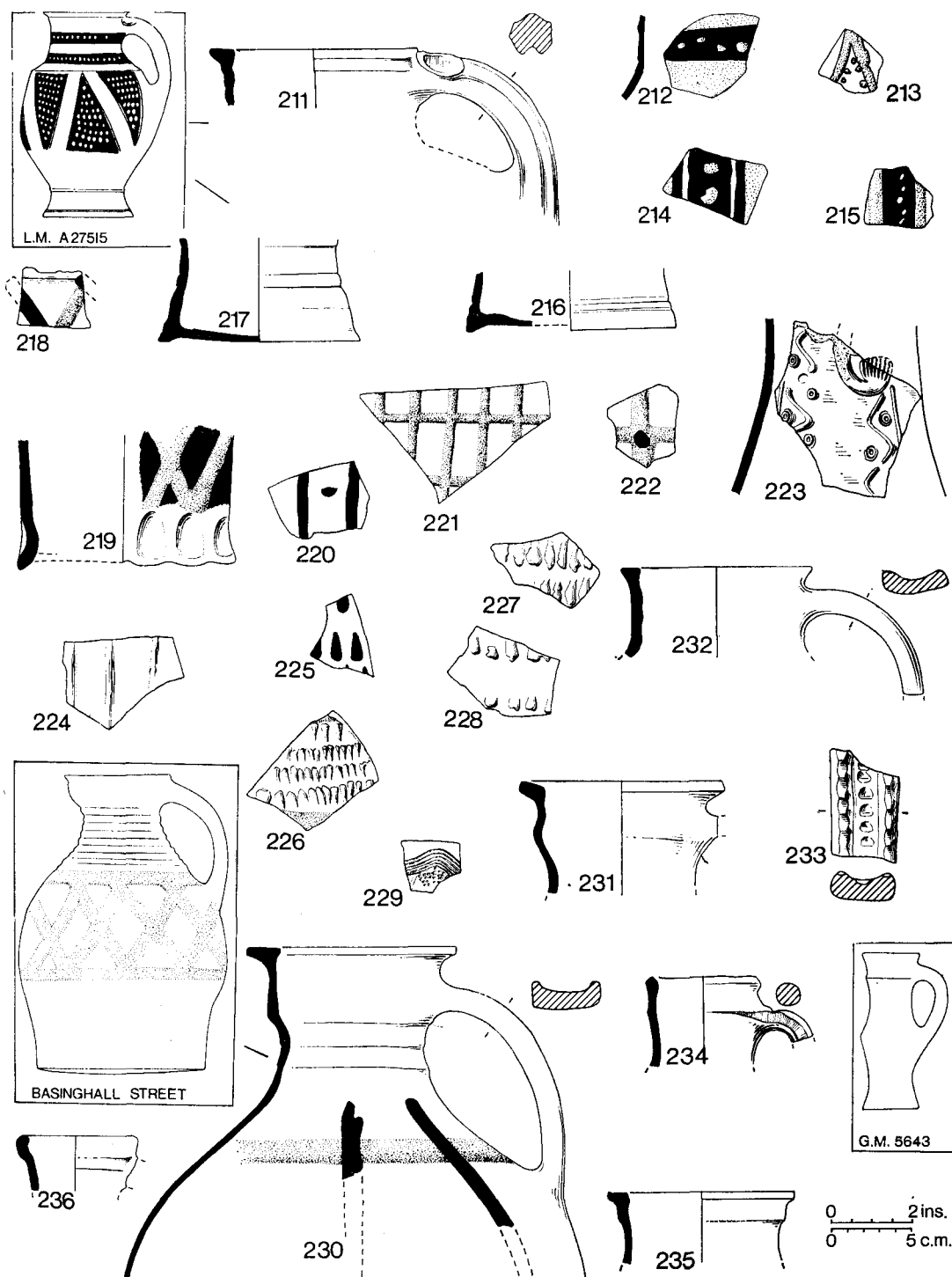


Fig. 14. Custom House Site. Medieval Pottery Group C.2 ($\frac{1}{4}$) (Insets $\frac{1}{8}$)

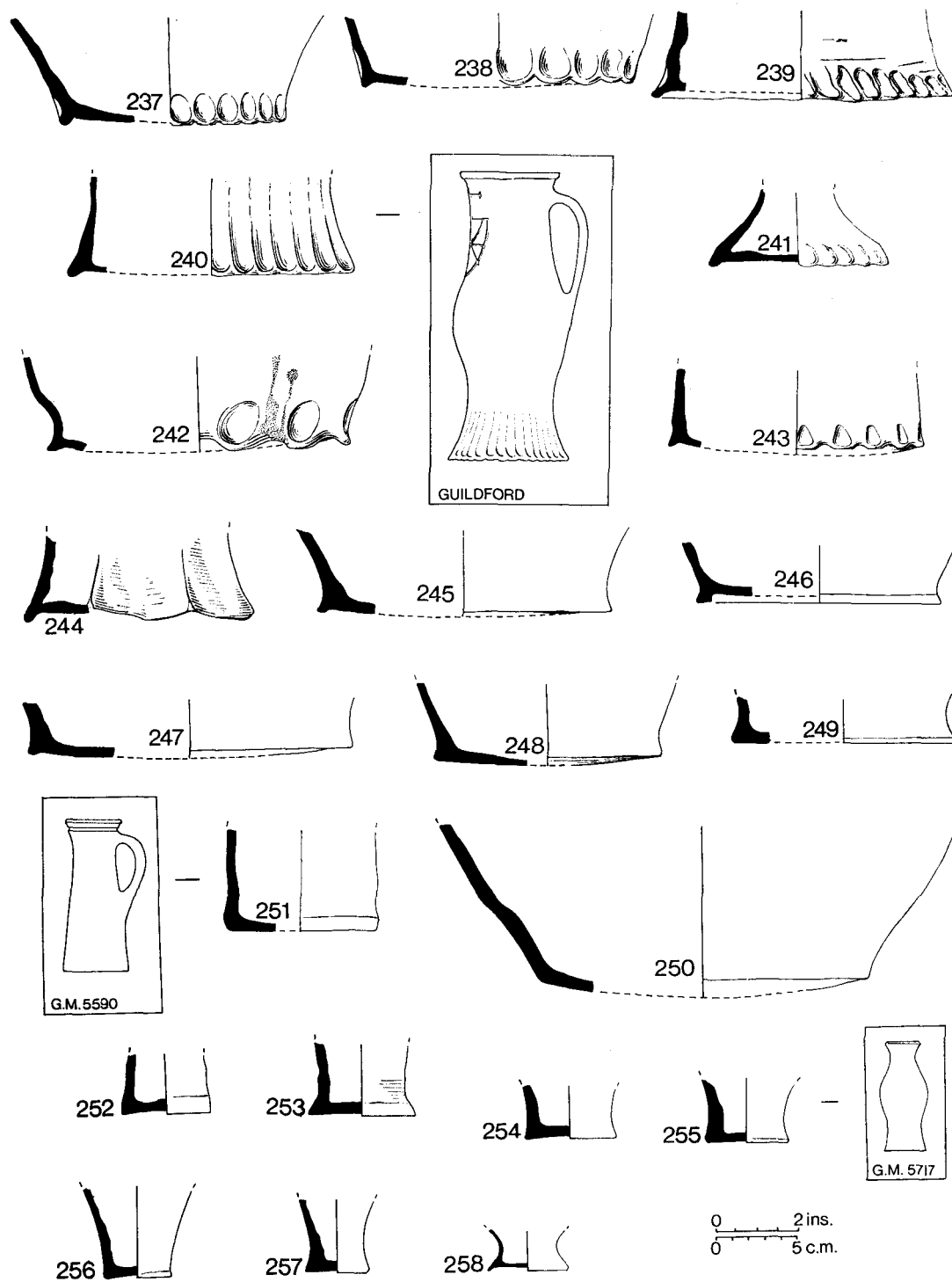


Fig. 15. Custom House Site. Medieval Pottery Group C.2 ($\frac{1}{4}$) (Insets $\frac{1}{8}$)

242. Jug (XIV-4). Dull, sandy ware, deeply dented finger-impressions with drip of green glaze.
243. Jug (I-12). Hard, sandy ware, widely spread finger-impressions with patch of dull green glaze.
244. Jug (VII-10). Sandy ware, lobed feet, patchy green glaze underneath.
245. Jug (XIII-3). Fine, sandy ware, footring base covered with clear, green glaze.
246. Jug (XIV-4). Fine, sandy ware, footring base covered with clear, green glaze.
247. Jug (XIII-3). Fine, sandy ware, footring base, exterior covered with clear, pale green glaze.
248. Jug (XII-3). Fine, sandy ware, sagging base, exterior covered with clear, mottled green glaze. This base seems to be the type used for 230 and 231.
249. Jug (XII-3). Fine, sandy ware, unglazed.
250. Jug (XII-3). Sandy ware, sagging base, dull green glaze on exterior.
251. Jug (I-12). Dull, sandy ware, unglazed, sooted exterior. Similar examples are very commonly found in London (G.M. 5590) (Fig. 15 inset). *cf.* No. 89.
252. Jug (I-13). Dull, sandy ware, unglazed, a smaller example of 251 above, but similar to 91.
253. and 254. Jug (VI-25 and III-10). Dull, sandy ware, unglazed.
255. Jug (XV-16). Dull, sandy ware, unglazed. The base is similar to that used for bottles such as one from London Wall (G.M. 5717); *cf.* Thorn (1973, 62-63).
256. and 257. Jug (III-10 and VII-10). Dull, sandy ware, unglazed. See also No. 92.
258. Jug (I-8). Hard, sandy ware, completely covered with deep, brown glaze.

Fig. 16:

259. Cooking pot XV 18. Fine, sandy ware, sooted exterior. A slightly smaller comparative piece in identical ware was found in a pit at Windsor Court (Fig. 16 inset), associated with a penny of Edward III; *cf.* Grimes (1956, 119, Pl. 20).
260. Cooking pot (V-13). Sandy ware, sooted exterior.
261. Cooking pot (I-12). Dull, sandy ware, applied horizontal strip decoration, lightly pressed on to surface.
262. Cooking pot (V-13). Sandy ware, flanged rim.
263. Cooking pot (V-28). Sandy ware, unglazed.
264. Cooking pot (V-13). Sandy ware, unglazed.
265. Cooking pot (V-13). Sandy ware, unglazed, discoloured exterior.
266. and 267. Cooking pot (V-8 and 13). Hard, bright red, sandy ware, light brown glaze inside base, sooted exterior.
268. Skillet (XI-2). Sandy ware, sooted exterior.
- 269-272. Skillets (I-12, XIV-5, XV-15 and III-10). Sandy ware, light brown glaze over rim and splashed on inside base, sooted exterior, handle missing, but most likely as 97.
273. Skillet handle (V-8). Hard, sandy, red ware as 266-67 above, splashed with light brown glaze, sooted exterior.

Fig. 17:

274. Dripping pan, end portion (XII-4). Hard, sandy ware, clear, streaked, light green glaze on interior, sooted exterior. Possibly a similar example to this was found complete at Andenne (Fig. 17 inset); *cf.* Borremans (1966, Fig. 16).
275. Dripping pan? (Section only) (III-10). Hard, sandy ware, brown glazed interior.
276. Dripping pan, oval shaped (XV-14 and 15). Fine, sandy ware, pale brown glaze on interior, sooted exterior.
277. Dripping pan handle (VII-10). *cf.* No. 106.
278. Dish (V-13). Sandy ware, splashed green glaze.

279. Dish (XV-25). Sandy ware, sooted interior and green glazed exterior.
280. Dish (I-12). Sandy ware, sooted exterior.
281. Curfew? (I-12). Hard, sandy, red ware, applied strip decoration, lightly pressed on to surface.
282. Waster (VII-unstrat.). Hard, red ware, grey core, interior light grey, but exterior shows patch of dull yellow-brown, clear glaze with rim fragments in white ware.

Fig. 18:

White slipped red ware

283. Jug (I-12). Fine, sandy ware, light brown slip with white slip borders, stabbed decoration on brown area, clear, pale yellow glaze on exterior.
284. Jug (III-10). Fine, sandy ware, raised feather pattern in white ware, picked out in deep mottled green glaze, the remaining area covered with clear, pale yellow glaze.
285. Jug (I-12). Fine, sandy ware, raised strip decoration in red and white ware, pale mottled green glaze on the white ware.
286. Jug (XIII-3). Fine, sandy ware, raised strip decoration in red ware, covered with mottled light green glaze.
287. Jug (I-12). Fine, sandy ware, applied quatrefoil in red ware covered with pale yellow glaze.
288. Jug (I-12). Fine, sandy ware, white ware pad with stamped decoration, picked out in green glaze, on a pale yellow glaze.
289. Jug (XV-22). Fine, sandy ware, raised, white ware leaf pattern covered with dark green glaze.
290. Jug (I-13). Fine, sandy ware, raised, white ware leaf pattern covered with mottled green glaze.
291. Jug (XIV-4). Fine, sandy ware, raised strip and scale pattern, pale green glaze.
292. Jug (XIV-4). Fine, sandy ware, raised scale pattern, light green glaze.
293. Jug (XI-2). Fine, sandy ware, lower portion of rod handle, with applied strip, scale pattern, light green glaze.
294. Jug (XV-17). Fine, sandy ware, red ware scale pattern, pale brown glaze.
295. Jug (XIV-5). Fine, sandy ware, incised, combed decoration, pale green glaze.
296. Jug (XII-5). Sandy, red ware, random barbotine, deep yellow-green glaze on a mottled green glaze.
297. Jug (XI-2). Sandy, red ware, vertical, applied strip in red ware covered with pale yellow glaze.
298. Jug (XV-17). Sandy, red ware, combed trellis with cone-shaped boss in middle, clear, green glaze.
299. Jug (XIV-4). Sandy ware with rouletted strip of red ware covered with dull yellow-green glaze.
300. Jug (V-48). Fine, sandy ware, combed decoration of five pronged teeth, pale green glaze.
301. Jug (XV-19). Fine, sandy ware, combed decoration of six pronged teeth, pale green glaze.
302. Jug (XV-11). Fine, sandy ware, combed decoration of six pronged teeth, pale green glaze.
303. Jug (V-13). Fine, sandy ware, lightly incised decoration, light green mottled brown glaze.
304. Jug (III-10). Fine, sandy ware, pulled spout, applied, horizontal scale pattern, pale green glaze.
305. Jug (I-12). Sandy ware, strap handle with pair of finger impressions and stab holes. This is a very common shape in London; *cf.* Rackham (1973, Pl. 32).
306. and 307. Jug (I-12 and V-13). Fine, sandy ware, strap handle with applied spur, sagging base with continuous finger impressions, pale green glaze. This is also very common London shape; *cf.* Rackham (1973, Pl. 37).

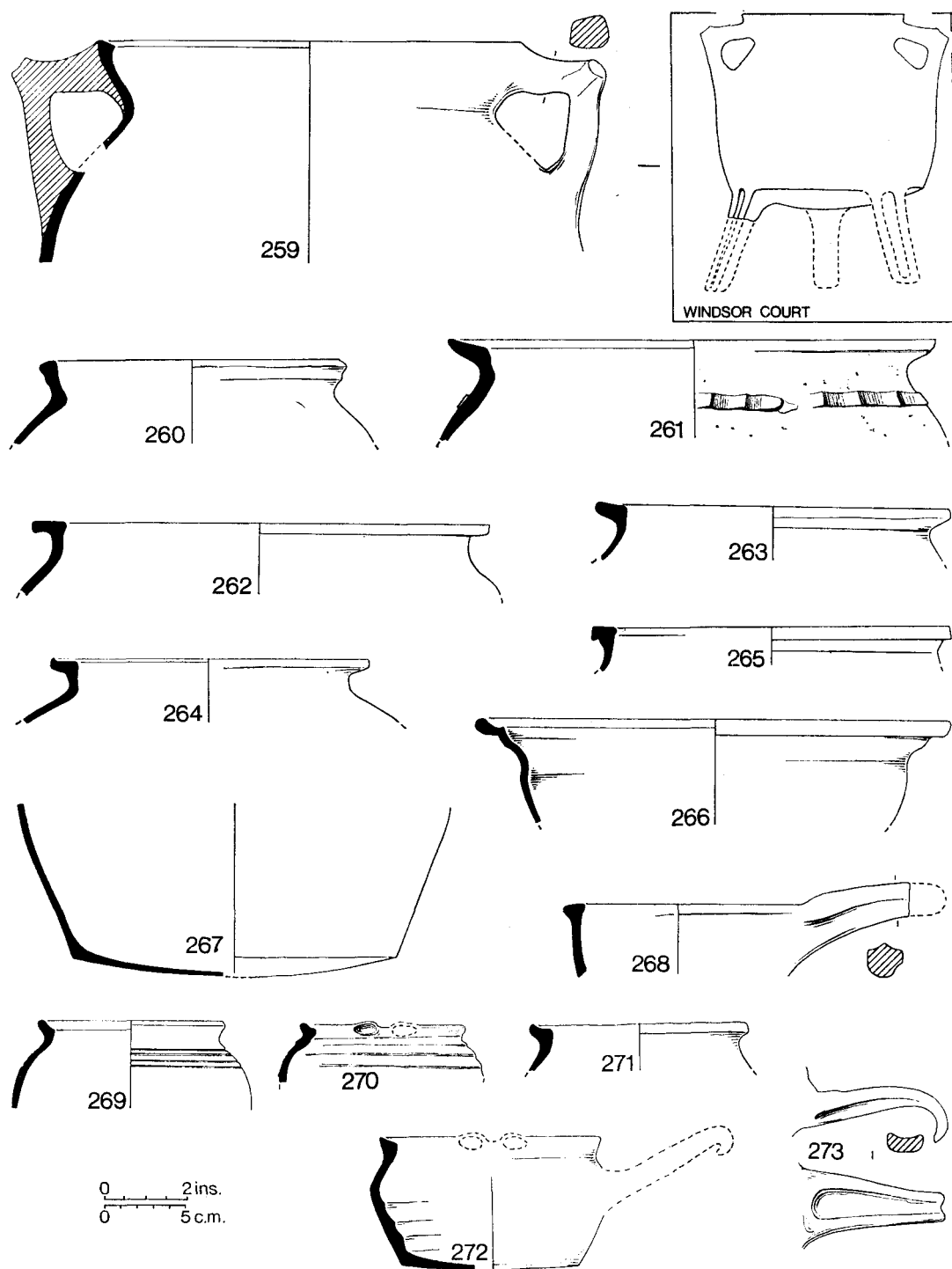


Fig. 16. Custom House Site. Medieval Pottery Group C.2 ($\frac{1}{4}$) (Inset $\frac{1}{8}$)

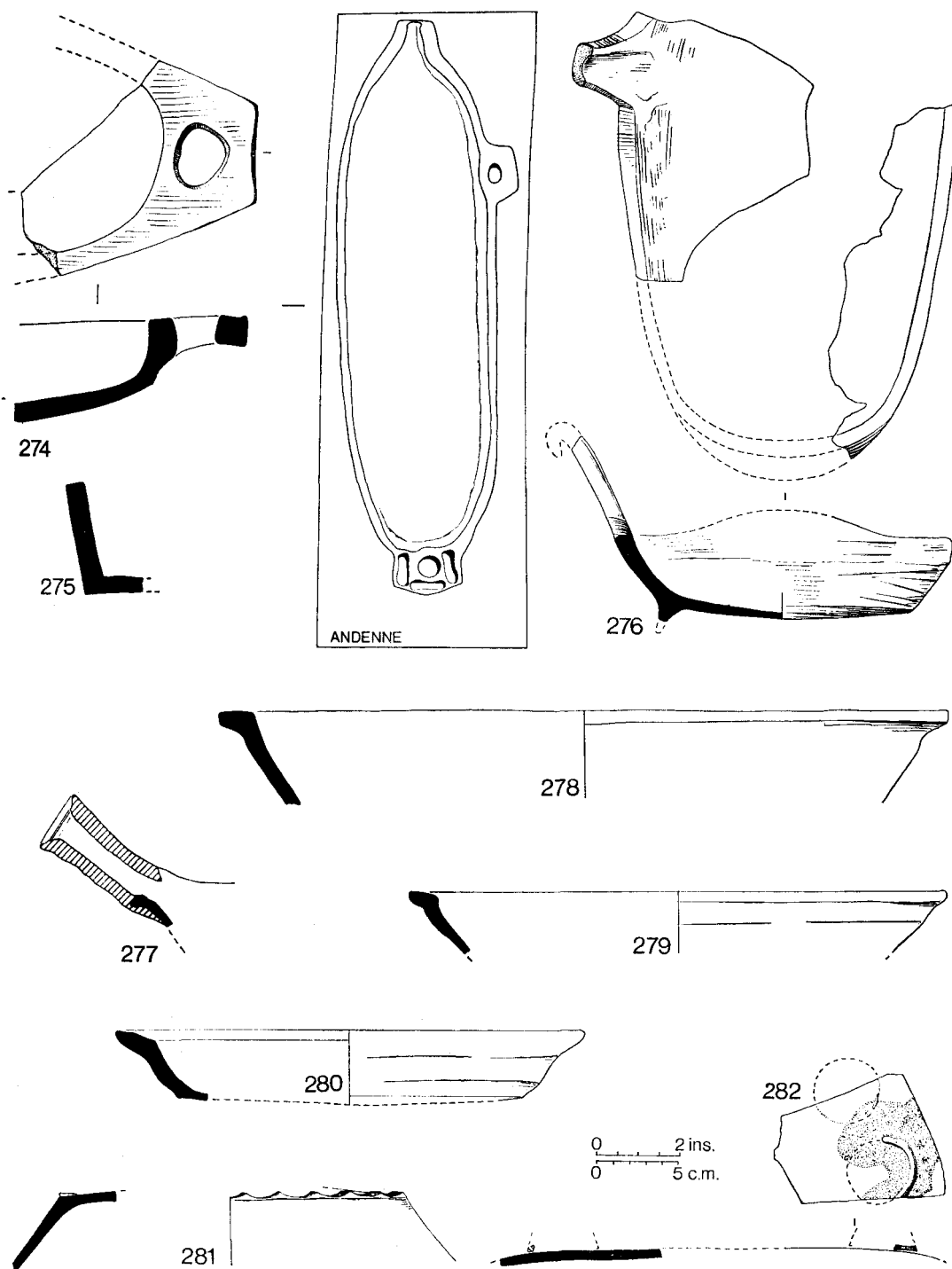


Fig. 17. Custom House Site. Medieval Pottery Group C.2 ($\frac{1}{4}$) (Inset $\frac{1}{8}$)

Fig18. Custom House Site. Medieval Pottery Group C.2 ($\frac{1}{4}$)

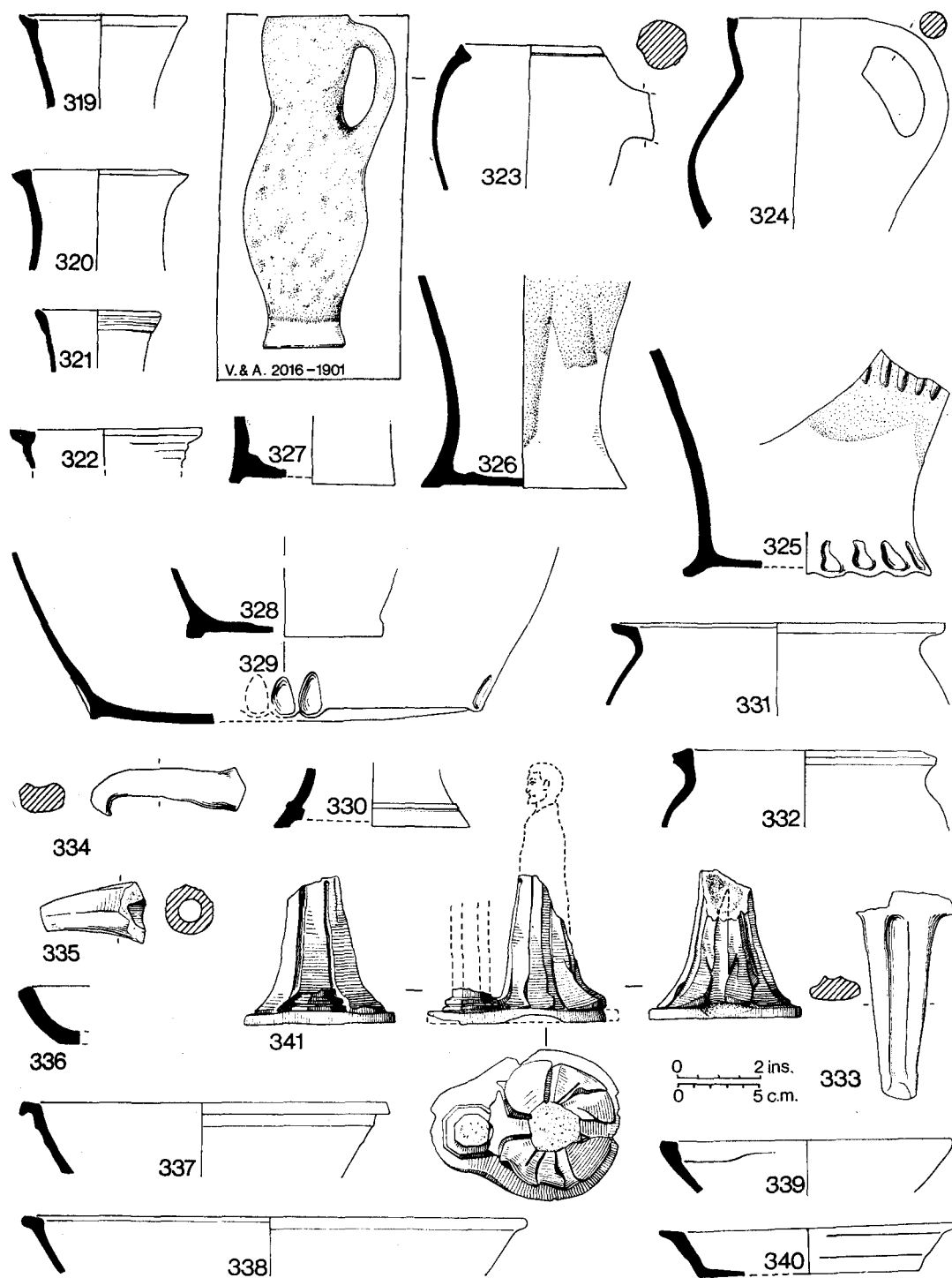


Fig. 19. Custom House Site. Medieval Pottery Group C.2 ($\frac{1}{4}$)

308. Jug, strap handle (I-13). Sandy ware, fluting impressed with stabbed holes.
309. and 310. Jug (V-13). Sandy ware with strap handle and flanged band, pale green glaze, possibly similar in form to 185 (Fig. 12 inset).
311. Jug (V-13). Sandy ware, stepped fluting, pale green glaze.
312. Jug (V-8). Sandy ware, pale green glaze on exterior.
313. Jug (VIII-10). Hard, sandy ware, pale mottled green glaze on exterior.
314. Jug (VI-25). Sandy ware, vertical strip decoration and a splashed, pale green glaze.
315. Jug (XIV-5). Sandy ware, applied spur on rod handle with trellis pattern covered with a pale mottled green glaze, similar to example from Mark Lane (G.M. 10631); *cf.* Rackham (1973, Pl. 37).
316. Jug, rod handle (V-13). Sandy ware, applied spur, splashed-on, pale green glaze.
317. Jug (III-10). Sandy ware with applied strap handle, pale green glaze.
318. Jug (VII-10). Sandy, red ware, sparse pale yellow glaze. Fig. 19:
319. Jug (XV-21). Fine, sandy ware, splashed pale green glaze.
320. Jug (XIII-3). Sandy ware, light green glaze streaked with dark green.
321. Jug (V-11). Sandy ware, light green glaze.
322. Jug (XIII-3). Sandy ware, dark green glaze.
323. Jug (VI-26?). Fine, sandy ware, splashed, pale yellow glaze. This example is typical of the London jugs and would have a base like that of 326 below. The form when complete would be like the Cannon Street example (V. & A. 2016-1901) (Fig. 19 inset). Dated examples of these were found at Lesnes Abbey with Saintonge polychrome 135 (Fig. 10 inset) and other wares, dating it to c. 1270-1325; *cf.* Dunning (1961, 4-5 and Fig. 1), and at Windsor Court; *cf.* Grimes (1956, 119 and Pl. 20) found with a penny of Edward III.
324. Jug (VI-26?). Fine, sandy ware with bib of pale green glaze.
325. Jug (VII-10). Hard, dull, sandy ware, base of vertical strip decoration and a continuous row of finger impressions at base. Pale yellow glaze on exterior.
326. Jug (I-12). Fine, sandy ware with painted slip, reduced exterior. This is the base belonging to jugs of 323 above. Base fragments have also been found in Southwark at Ingledew and Davenport, Pit 2; *cf.* Dunning (1959, 88-92 and Fig. 27), and at 244-46 Borough High Street deposit; *cf.* Celoria (1974, 266-68 and Fig. 1).
327. Jug (VII-10). Fine, sandy ware, splashed, pale yellow glaze.
328. Jug (XII-3). Fine, sandy ware, strip decoration with splashed, green glaze on underside of base.
329. Jug (XV-25). Fine, sandy ware showing sets of finger impressions around base.
330. Jug (XIII-3). Fine, sandy ware, raised cordon with mottled green glaze.
331. Cooking pot (V-13). Fine, sandy ware, patches of pale yellow glaze over rim and sooted exterior.
332. Cooking pot (III-10). Fine, sandy ware, unglazed, sooted exterior.
333. Cooking pot, tripod leg (III-10). Fine, sandy ware, sooted exterior. This would possibly be used on cooking pots of 259.
334. Skillet handle (VI-25). Sandy ware, light green glaze and sooted exterior. Similar handle to this has been applied to 97 and 272.
335. Skillet handle? (XII-3). Sandy ware, covered with light mottled green glaze, possibly attached to a vessel like 268.
336. Dripping pan (Section only) (VII-10). Fine, sandy ware, clear, yellow-green glaze, slipped interior. An example of this was found in a well at 112 Fenchurch Street (G.M. 16199) showing white slip over interior and handle and covered with a pale yellow glaze. In form it is like 276.
- 337-339. Bowls (I-12). Fine, sandy ware with mottled green glaze on interior.
340. Dish (III-10). Fine, sandy ware, thick slipped interior with sooted exterior.
341. Figurine (XV-17). Sandy ware, grey core, deep green glaze, weathered exterior. This figurine seems to wear a mantle, and appears to be facing towards a pedestal base, which is reminiscent of Gothic Transitional pillar bases of the fourteenth century. Evidence for the arms is missing, but it is likely that only the hands were visible. Evidence of other figures is varied, but would suggest that this may be a salt, as an example from the corner of Milton Street and Parliament Street, Nottingham, represents a woman with barrette and fillet headware with an annular brooch on chest. The arms are stretched out and forwards but are, unfortunately, broken, and below the brooch is a large triangular scar where an applied piece has broken off, which suggests that the arms were attached to it. An early Tudor salt was found at Cardiff in Cistercian ware, and shows an applied small dish incorporated at waist level amongst the drapery, with the arms just above it resting on the stomach (information from John Hurst). Evidence of male figurines for salts is not so clear, but it should be noticed that a figurine of a coroneted noble found in London shows an identical gesture and large scar as on the Nottingham example, and has been interpreted as a roof finial; *cf.* Wood (1965, 297 and Fig. 88).

Fig. 20:

Grey wares

342. Jug (I-13). Hard, sandy ware, pulled spout, rod handle with seven tooth combed decoration, applied strip decoration, lightly thumbled on to exterior. An example found in London (Fig. 20 inset) (G.M. 10322) shows the complete form.
343. Jug (III-10). Hard, fine, sandy ware with lightly incised decoration, which in ware and decoration is identical to an example found at the Bank of England (Fig. 20 inset) (G.M. 5738).
344. Jug (XIV-4). Sandy ware with rod handle showing diagonally stabbed holes.
345. Jug (III-10). Hard, sandy ware with three vertical rows of round stabbed holes. This type of decoration is identical to that used on a jug found in a deposit at 244-46 Borough High Street, Southwark, which seems to have affinity with wasters found at Titsey; *cf.* Celoria (1974, 269 and Fig. 2).
346. Cooking pot (XII-5). Hard, sandy ware, sooted exterior.
347. Cooking pot (VI-25). Sandy ware, with splashes of green glaze on interior.
348. Cooking pot (VI-26?). Sandy ware with applied vertical strips similar to a larger example from Windsor Court pit associated with a penny of Edward III; *cf.* Grimes (1956, Pl. XXII). Also with the deposit found at 244-46, Borough High Street, Southwark; *cf.* Celoria (1974, 269 and Fig. 2).
349. Cooking pot (I-13). Sandy ware with applied horizontal strip decoration, lightly pressed on to surface.

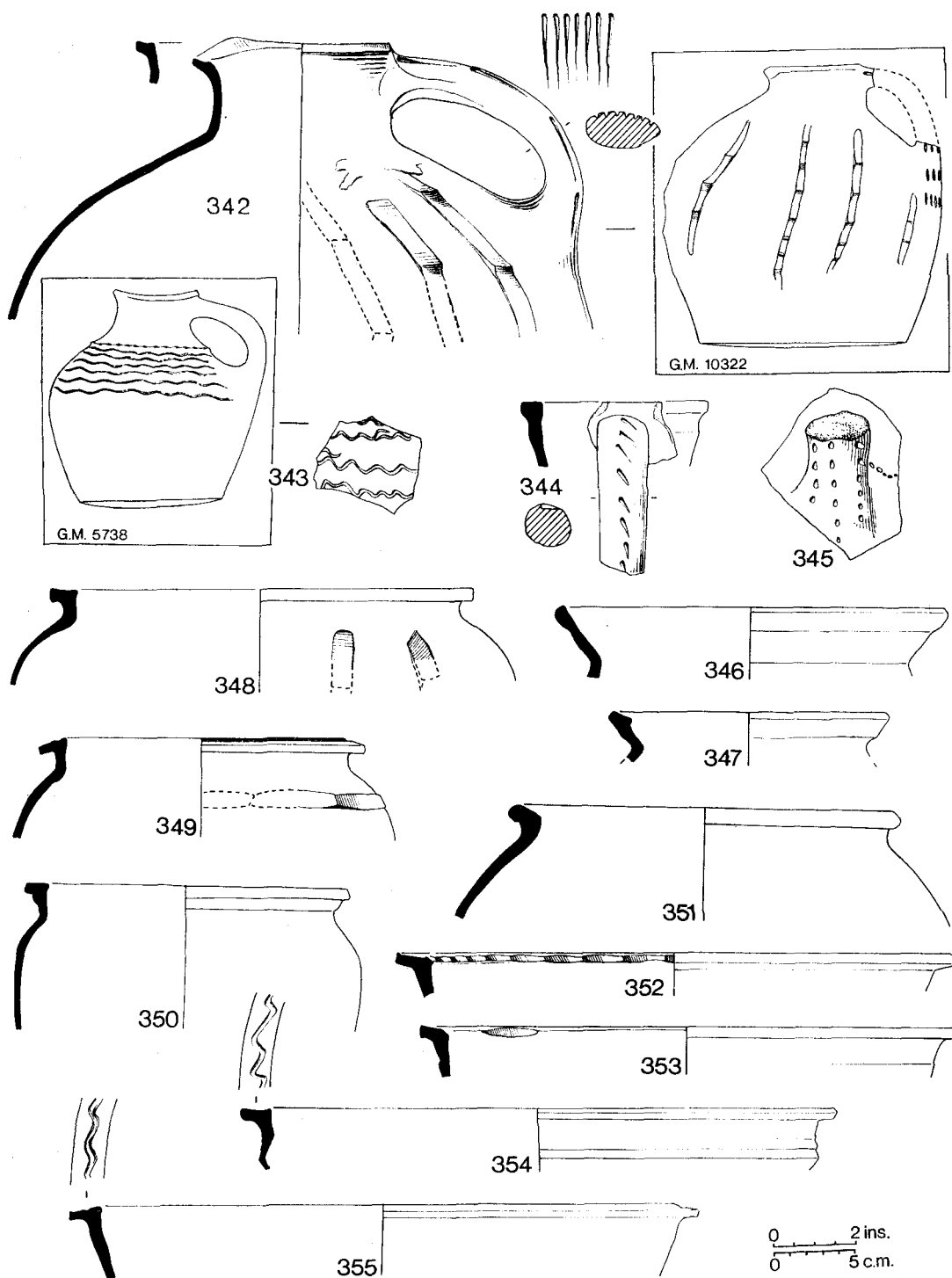


Fig. 20. Custom House Site. Medieval Pottery Group C.2 ($\frac{1}{4}$) (Inset $\frac{1}{8}$)

350. Cooking pot (V-13). Sandy ware, sooted exterior.
 351. Cooking pot (XII-5). Sandy ware, sooted exterior.
 352. and 353. Cooking pots (III-10 and XV-17). Sandy ware, lightly impressed decoration on interior rim, sooted exterior.
 354. and 355. Cooking pots (III-25 and V-13). Sandy ware, with incised wavy decoration on rim, sooted exteriors.
 FIG. 21:
 356. Cooking pot (VII-10). Sandy ware with lightly pricked, stabbed holes.
 357 and 358. Cooking pots (VI-26?). Sandy ware, sooted exterior.
 359. Cooking pot (V-13). Sandy ware, splashed green glaze with sooted inner and outer surfaces.
 360. Skillet handle (XIII-3). Sandy ware, sooted exterior, possibly used on type of vessel like 268.
 361. Flanged spacer? (III-10). Sandy ware, similar to a larger example 203 from the same context.

Shell tempered wares

- 362-365. Cooking pots (XIII-3). Fine, tempered ware, sooted exterior on some.
 366. Cooking pot (XI-2). Fine textured ware with a set of finger impressions on rim. A similar example to this was found at the Wakefield Tower in the Tower of London (information from Peter Curnow).
 367. Cooking pot (XIII-3). Fine textured ware, sooted exterior.
 368. Cooking pot (XIV-5). Fine textured ware, sooted exterior. A similar example to this was found at the Wakefield Tower in the Tower of London (information from Peter Curnow).
 369-371. Cooking pots (XI-2, 4, XXI-3). Fine textured ware, sooted exterior.
 372. Bowl? (XII-5). Fine textured ware, sooted exterior.

Group D1. THE UPPER GRAVELS:

Most of the material from this group is similar to that found in Group C2, but there are a number of items of exceptional interest. These are the Siegburg earthenware Nos. 375 and 376, Merida ware amphora, No. 388, which is unique, and a knight jug No. 400.

Blue-grey ware

FIG. 22:

373. Handled ladle (II-18). Hard, grey, sandy ware, applied rod handle. Another handled example of this occurred in Group D2. Comparative examples to these were found elsewhere in the City at the Mansion House (Fig. 22 inset), and Paternoster Row. The latter shows a luted handle in body; cf. Dunning (1960, 56-60 and Fig. 31: 1 and 2). The colour and texture compare with an example in the G.M. (23303), which was found in the upper levels of the Walbrook Stream at Bucklersbury, and to another (in E.R. 356) which was in a silt layer at the Public Cleansing Depot site (*ibid.* 73-77 and Fig. 40: 18) and was assigned a twelfth century date.

Siegburg stoneware

374. Jug (III-14). Hard, light grey ware, rilled neck, applied strap handle, patches of thin light brown glaze. The lower portion of this form is No. 31. In shape and size it would seem to compare to G.M. 25786 (Fig. 22 inset) which was found in the Cofferdam at Blackfriars in Boat III; cf. Marsden (1971, 7-9). Sherds of this shape were found in a group of deposited layers found at Winchester Palace, Southwark

(Trench 4N, Layer 14 62/8/4450 and 3254) which also contained a large variety of white ware, white slipped red ware, a sherd of Grimston and a sherd of Saintonge polychrome (information from Francis Celoria).

Siegburg earthenware

375. Jug (I-15). Hard, grey ware with white inclusions, sandy exterior with brown flecks.
 376. Jug (I-15). Hard, grey ware, sandy exterior, applied rod handle. Similar ware alleged to have been found on the corner of Chapel Street at the junction with High Street, Guildford, Surrey (Guildford Museum G. 805) (information from John Hurst). This form is reconstructed on a waster from Schinveld; cf. Bruijn (1966, Pl. 54).

Normandy ware (lemon yellow glaze)

377. Jug (III-36). Fine, white ware, pale yellow glaze on exterior.

Normandy ware (iron wash decoration)

378. Body sherd (I-15). Hard, grey ware, applied rouletted, vertical strip, outlined in yellow on a background of brick red iron wash under a clear glaze.

Isle de France (mottled monochrome glaze)

379. Jug (XIV-7). Fine, white ware, raised cordon around base restriction, covered with a bright, mottled green glaze.

Saintonge (polychrome)

380. Jug (I-15). Smooth, white ware, pink core, red inclusions, applied moulded mask, green surmounts the headdress, with the forehead and eyes picked out in purple-brown. The mask used on this jug compares extremely well with the jug found at Lloyds Bank, High Street, Cardiff (Fig. 22 inset); cf. Dunning (1933, 115, 124 and Pl. XXVI). Impressions of masks similar to this, but slightly inferior in detail, were found at Ingledew and Davenport in Pit 2; cf. Dunning (1959, 88, 90 and Fig. 27: 1) and at Sussex Place (G.M. 11512), Leadenhall Street; cf. Dunning (1933, 130 and Pl. XXX). A hand-modelled mask with pinched nose and other features indicated in purple-brown, such as the eyebrows and mouth, occurs on a jug (G.M. 13612) found at the subway site across King William Street. It was decorated with a botanical motif, and in shape is reminiscent of a jug in even, green glaze as discussed for No. 2.

381. Rim sherd (III-14). Smooth, white ware, green just under rim, covered by a pale yellow glaze.
 382. Body sherd of jug (III-14). Similar ware, red inclusions, decorated with botanical motif. The leaves are in yellow and green and outlined and overpainted in purple-brown.
 383. Body sherd of jug (III-14). Similar ware, pink core, decorated in yellow, outlined and overpainted in purple-brown.
 384. Jug (III-14). Similar ware, pink core, red inclusions, green, horizontal band under a clear, pale yellow glaze.

Saintonge (mottled monochrome glaze)

385. Jug (III-15). Similar ware, mottled green glaze on exterior.
 386. Jug (V-16). Similar ware, light, mottled green glaze over interior and exterior.

Merida ware

387. Rim sherd (I-14). Pale red, micaceous ware, grey core, external surface a dull purple-brown.

FIG. 23:

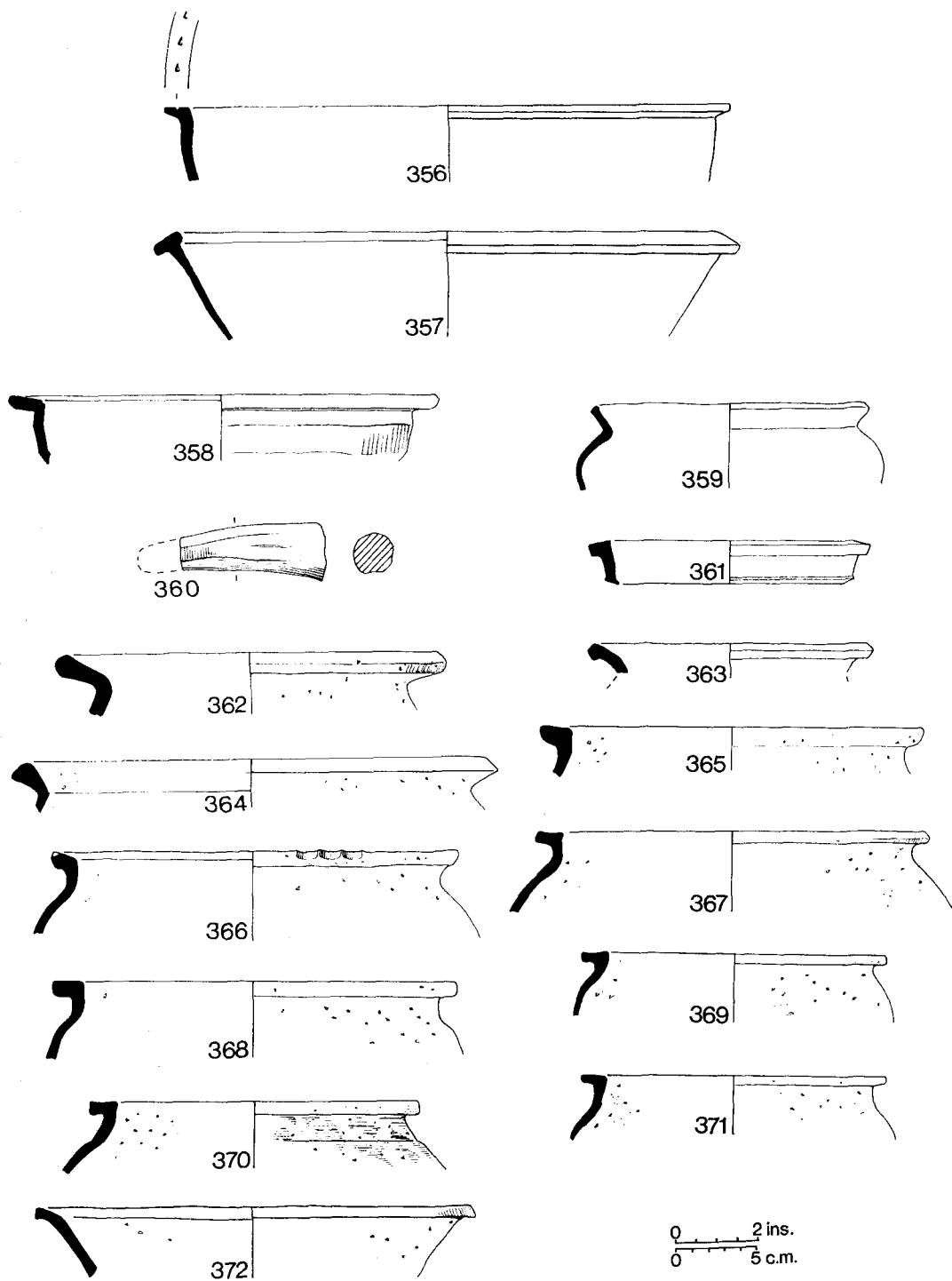


Fig. 21. Custom House Site. Medieval Pottery Group C.2 ($\frac{1}{4}$)

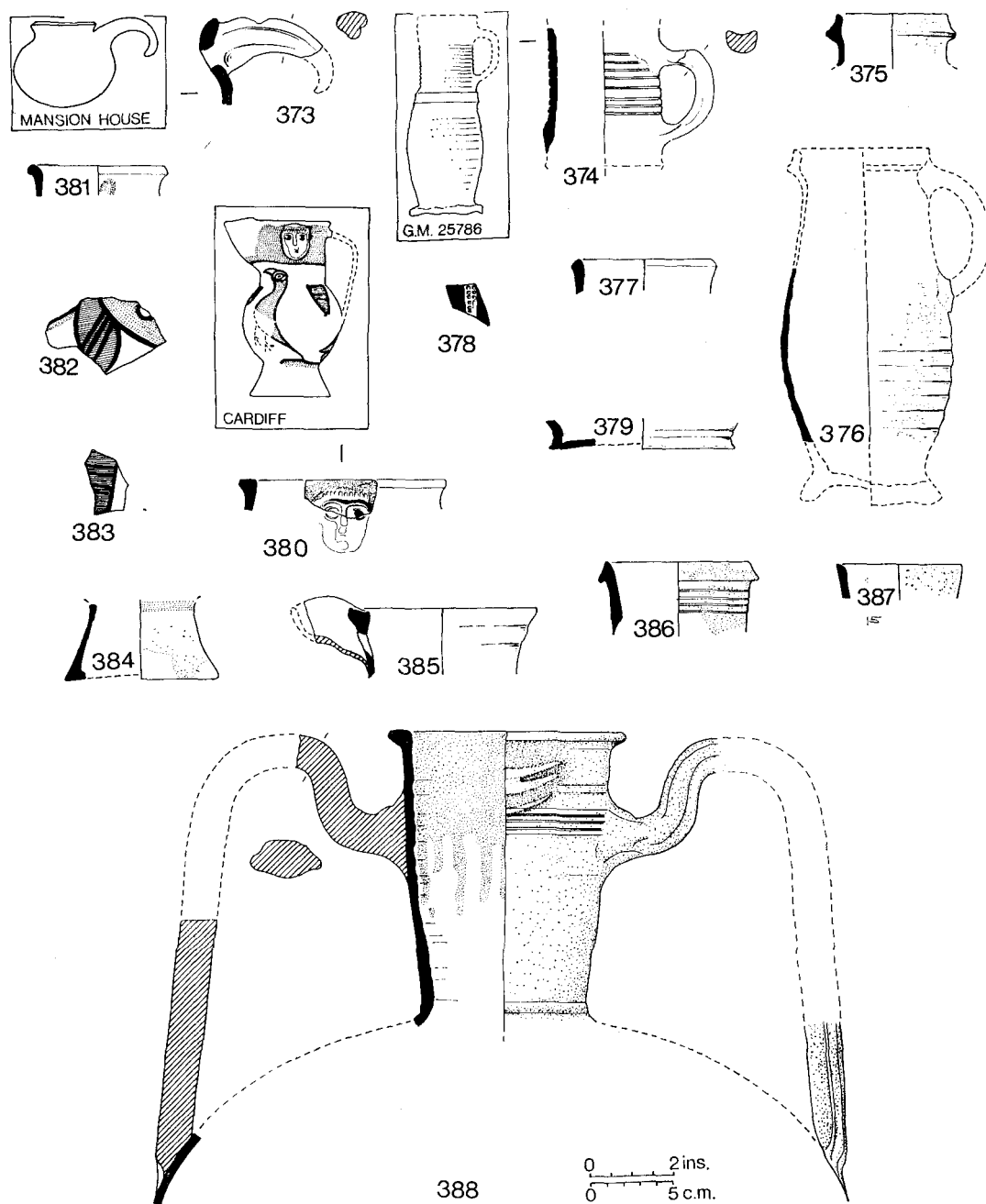


Fig. 22. Custom House Site. Medieval Pottery Group D.1 ($\frac{1}{4}$) (Insets $\frac{1}{8}$)

Mediterranean ware?

388. Amphora (III-15). Fine, pink ware, red, black and micaceous inclusions, cream-coloured surfaces. A thin, dull terracotta red wash on exterior, handles and partly inside neck. This wash contains a fine, red, granular substance, giving a fine sandpaper texture, and showing a thin, opaque, white decoration under the rim. A number of body sherds, possibly from the girth, show a geometrically-based botanical motif. The lower part of the base is completely free of the terracotta wash, although sherds above this show a trickle of wash finishing below the girth. These sherds are all possibly from different vessels. A reconstruction of this amphora would seem to imply that it was pear-shaped (see Fig. 23 inset, which is at a scale of 1/12). A slightly similar amphora base was found at Stonar associated with Saintonge polychrome wares, but the ware was slightly different (information from John Hurst).

White ware

389. Jug, neck sherd (I-15). Buff, sandy ware, diagonal strip decoration, picked out in deep green glaze on a yellow-brown glaze. Similar decoration to this is used on a polychrome zoomorphic decorated jug from Cannon Street (B.M. B40), which shows a debased griffin; cf. Rackham (1973, 26 and Pl. B).
390. Jug, body sherd (I-15). Hard, sandy ware, applied decoration covered with thick, olive green glaze. Similar decoration was used on a jug from a well group at the Bank of England, and suggests a fourteenth century date; cf. Dunning (1937, 414-16 and Fig. 1: 1).
391. Jug, body sherd (III-14). Hard, sandy ware, applied decoration under a deep, green glaze. The decoration is similar to that used on 140, which is from the Saintonge.
392. Jug, body sherd (I-14). Hard, sandy ware, applied, stamped decoration with ring dot stamp at base covered by a pale green glaze.
393. Jug rim sherd with rod handle (I-15). Sandy, buff ware, incised, rilled bands, covered with light mottled green glaze.
394. Cooking pot rim sherd (III-14). Sandy ware, splashed, even, green glaze with sooted exterior.
395. Cooking pot, rim sherd (I-15). Sandy ware, sooted exterior.
396. Cooking pot, rim sherd (III-14). Sandy ware, splashed even, green glaze with sooted exterior.
397. Bowl, rim sherd (XIV-7). Sandy, buff ware, sooted exterior.
398. Bowl, rim sherd (III-36). Sandy ware, sooted exterior.
399. Plate, rim sherds (I-15). Sandy ware, mottled green glaze on interior, sooted exterior.
- Fig. 24:
400. Jug, zoomorphic head (I-15). Light red ware with red and white inclusions covered with clear, olive green-brown glaze. Fragments of a fluted handle and rim possibly belong to this, and were found in the same layer. The zoomorphic head would seem to be a horse ridden by a knight which seems to be attached to a tubular spout, similar in form to another jug from Aardenburg attributed as Nottingham ware, although the Custom House example is not in Nottingham or Scarborough wares; cf. Dunning (1968, 41 and Fig. 14).
401. Jug body sherd (XII-8). Fine, dull, sandy ware, zone of red wash bordered by applied strip and pellet pattern covered by a clear, lustrous, yellow glaze. A similar jug to this in areas of zoning was found (Fig. 24 inset) on the site of St. Michael Church,

Crooked Lane in 1831; cf. Kempe (1832, 200 and Pl. XLIV).

402. Jug, body sherd (III-4). Hard, sandy ware, exterior showing lightly thumb impressed impressions covered with yellow-brown mottled glaze.
403. Jug, base sherd (XII-8). Fine, hard, sandy ware, continually lightly finger-impressed base, covered by a thin, mottled green glaze.
404. Dish, rim sherd (III-16). Dull, sandy ware with grey core, spots of green glaze on exterior.

White slipped red ware

405. Jug, rim sherd (XIII-4). Fine, sandy ware, unslipped under rim and one cordon, clear, yellow glaze on exterior appearing brown on unslipped area.
406. Jug, body sherd (V-16). Hard, sandy ware, raised stamp decoration, possibly of a six-pointed star shape. Stamped decoration on this type of ware is very scarce, as the author has only come across two other examples from medieval buildings at Joyden's Wood; cf. Dunning (1958, 34 and Fig. 6, 15), showing a raised herringbone pattern, and at 244-46 Borough High Street; cf. Celoria (1974, 268-69 and Figs. 2, 3), which shows a raised, crowned or hooded figure.
407. Jug, body sherd (I-15). Coarse, hard, sandy ware, applied strips of white clay over slip and covered by a clear, bright green glaze.
408. Amorphous fragment (III-14). Sandy ware, grey core, roughly slipped and covered with mottled green glaze.

Grey ware

409. Jug, strap handle (I-15). Light grey, sandy ware with white inclusions.
410. Jug, strap handle (I-14). Light grey ware with two rows of vertical finger impressed decoration. This decoration is used on a Hertfordshire reduced ware.
411. Cooking pot, rim sherd (I-15). Light grey ware, sooted interior.
412. Costrel? body sherd (I-15). Blue-grey, sandy ware, showing incised lines.

Shell tempered ware

413. Cooking pot body sherd (XII-5+7). Light grey ware, applied decoration, lightly pressed on to surface.
414. Cooking pot, rim sherd (III-36). Dull, red ware, grey exterior.
415. Cooking pot rim sherd (I-14). Hard, grey ware.
416. Cooking pot, rim sherd (XII-5+7). Hard, dull, red ware, sooted exterior.
417. Cooking pot, rim sherd (XIII-4). Hard, dull, red ware, sooted exterior.
418. Cooking pot, rim sherd (XII-5+7). Hard, dull, red ware, sooted exterior.
419. Skillet, handle broken (XII-5+7). Hard, dull, grey ware, sooted exterior.
420. Bowl? rim sherd (XIII-4). Hard ware, dull, red exterior, grey core.
421. Bowl? rim sherd (XIII-4). Hard ware, dull, red exterior, grey core, finger impressed rim.

Group D2. THE LOWER GRAVELS:

These lower gravels contained a very sparse collection of wares. Most of the material seems to correspond to Group C2.

White slipped red ware

422. Jug, body sherd (XII-14). Fine, sandy ware, light grey core, raised pattern covered with white slip and deep, clear, yellow glaze, sooted exterior.
423. Jug, body sherd (V-17). Fine, sandy ware, light grey core, applied strip decoration in red ware over slip and covered with a clear, yellow glaze.

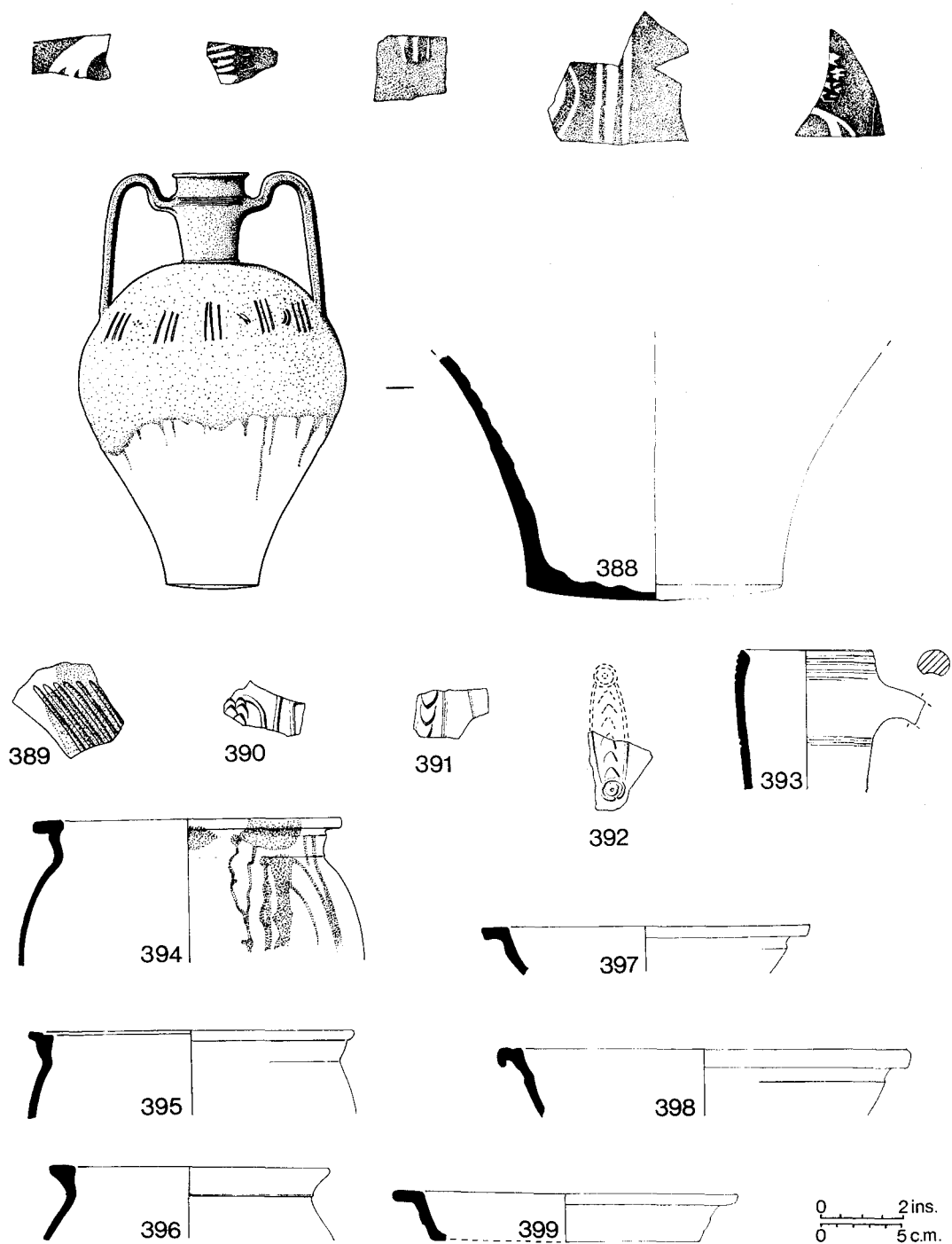


Fig. 23. Custom House Site. Medieval Pottery Group D.I (1/4) (Inset 1/12)

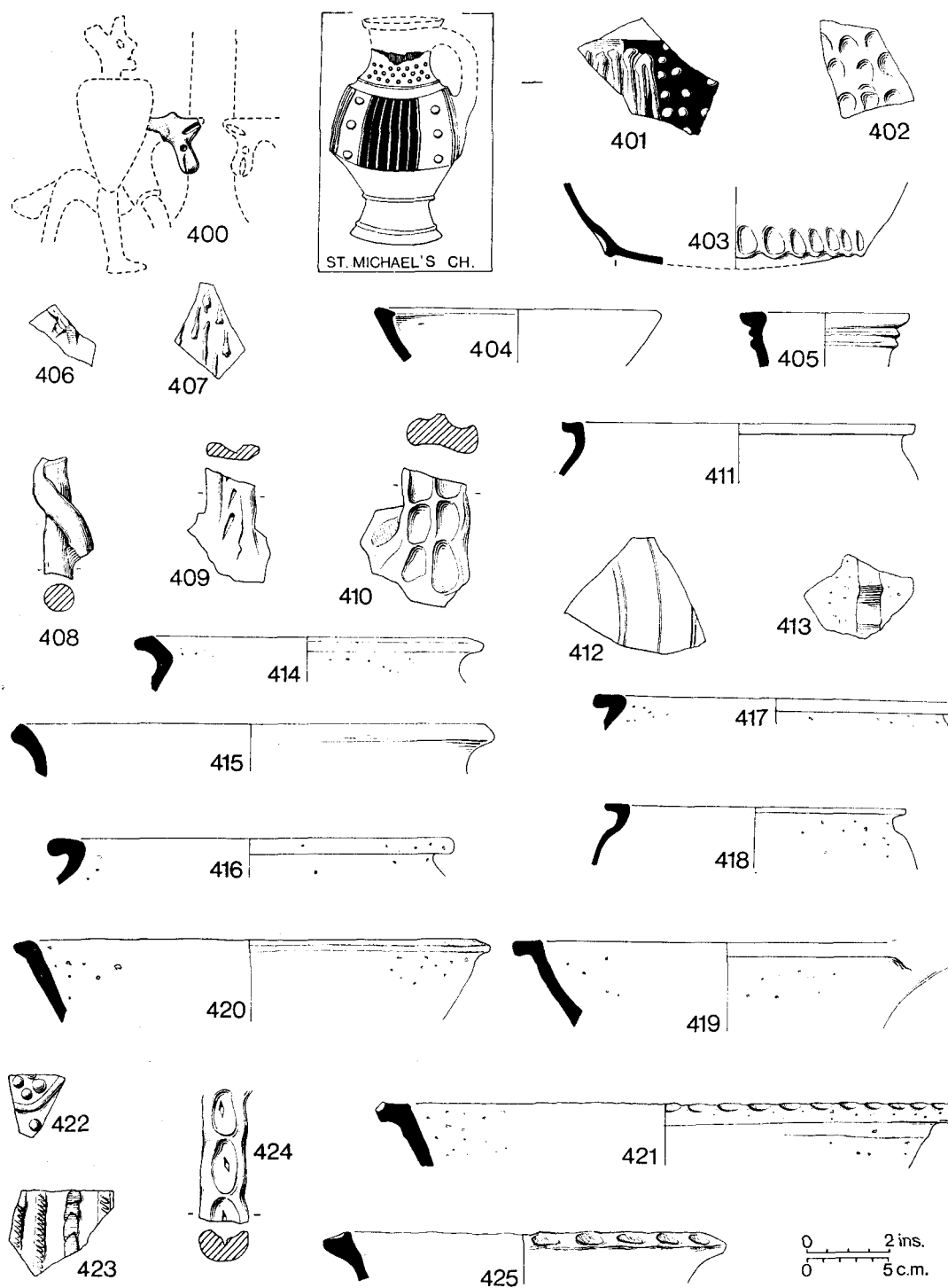


Fig. 24. Custom House Site. Medieval Pottery Groups D.1 and D.2 ($\frac{1}{4}$) (Inset not to scale)

Grey ware

424. Jug, rod handle (V-17). Hard, light grey ware, with a row of finger-impressed decoration with stabbed hole in the middle. This method of decoration is similar to a jug found associated with the Wakefield Tower, Tower of London (information from Peter Curnow). In the kitchen area at Northolt in a late thirteenth to

early fourteenth century context examples were found; cf. Hurst (1961, 273, Fig. 72). Wasters of this ware also found at Elstree in Hertfordshire; cf. Biddle (1961, 69 and Fig. 2).

425. Cooking pot, rim sherd (V-17). Light grey ware with row of finger-impressed decoration on rim.

DISCUSSION AND DATING:

The pottery from the Custom House site ranges in date from some time after the mid-thirteenth century until somewhere towards the end of the fourteenth century. Amongst the pottery in all the groups is a large percentage of residual sherds, some of which (particularly the imports) are easily identifiable and are found on other sites in twelfth century levels. This is well shown by the handled ladle (No. 373) and the Andenne ware (Nos. 119-20) as well as an unillustrated fragment of a Pingsdorf spouted amphora from Group D1. Associated contemporary material is lacking, although shell-tempered wares were most numerous in the lower levels of Groups C2 and D1 (Nos. 362-72 and 413-21). There is less in Group D2 (but see No. 425). There is no similarity between these and comparable shell-tempered wares found in eleventh century levels, such as those in the lowest silt layer of the eleventh century ditch at the Tower of London (information from Brian Davison). This was also the case with a late eleventh-early twelfth century group of shell-tempered forms found in pit P4 at Aldgate; cf. J. Clark in Chapman and Johnson (1973, 40-41, Fig. 19). The rim forms are more like those of thirteenth century material found in association with the Wakefield Tower (Tower of London) excavations (information from Peter Curnow) (Nos. 366, 368). The imports also seem to suggest this later date as early Langerwehe (No. 115), Siegburg earthenware (Nos. 375-76) and stoneware (Nos. 116 and 374) make their appearance in Group D1 associated with Saintonge polychrome jugs (No. 380) which are dateable to 1270-1325; cf. Dunning (1961). The Merida Ware amphora (No. 388) from this group probably dates from the same period. It is also noticeable that there is a lack of provincial white wares in Group D2, but a particularly large number of white and other provincial wares in Group D1. They correspond extremely well with forms found in Group C2, and this seems to imply that Groups D1 and C2 are contemporary and must both be late thirteenth to early fourteenth century in date. This would mean that the first timber structures were built at the earliest at the beginning of the fourteenth century and might only have lasted for a short period before the second timber structures were built some time after the first quarter of the fourteenth century.

Group C2, the organic layer that formed behind the second timber structure, contained the largest range of material from the whole site. Imports of notable wares, Flemish ware (No. 114), an Andalusian bowl (No. 152) and Mediterranean Majolica (No. 153) make their appearance here with a wide range of Saintonge and some Normandy wares (Nos. 122-28 and 133-51). Some of the provincial wares can be roughly dated; for example, the cooking pot (No. 259) is similar to a slightly larger example found associated with a silver penny of Edward III (1327-77; cf. Grimes (1956, 119). A sherd in the upper levels of the organic layer may belong to a jug found in Group A3 (No. 14) which has similarities with one found on the cellar floor at King's Langley, associated with a jetton of c. 1390 (Neal, 1973), just possibly indicating that the upper levels of C2 were still open in the late fourteenth century.

The pottery from Group C1 is contemporary with that from Group C2 on the other side of the timber structure. It contained a similar range of imports with a Langerwehe jug (No. 64), an Andalusian bowl (No. 67) and a sherd of Mediterranean Majolica (No. 66), all of which are also in Group C2. There were also some residual sherds of Siegburg and Andenne wares similar to sherds found in C2 and possibly originating in Group D1.

At some later date, part of the second timber structure was dismantled, robbing out part of Group C1. In the backfill of this robbing feature (Group B) the pottery was identical to that found in Groups C and D. This is demonstrated by the presence of residual sherds of Langerwehe (No. 29), Siegburg (No. 31) and Pingsdorf wares. In the range of Saintonge wares there is an additional type of decorated, even monochrome glazed ware (Nos. 32-33) which was not found elsewhere on the site and might be the only non-residual pottery in Group B. It is probable that all of Groups B and C were deposited before the end of the fourteenth century as they were entirely covered by the trodden gravel of Group A3, which overlies the top of Groups B and C.

Group A3 also contained residual sherds of Langerwehe and Siegburg wares and a provincial jug (No. 14). The presence of these earlier Medieval and also Roman sherds indicates that these gravels are mainly redeposited, possibly coming from a Roman level.

The material associated with the construction of stone foundations for the Custom House (Groups A1 and A2) seems to contain residual sherds probably originating in Group C2. The only complete vessel found was a Saintonge even green glazed jug (No. 2), which was in the construction trench for the drain (Group A1/A2).

This is disturbing as in form it is similar to jugs found in association with Saintonge polychrome glazed jugs of the early fourteenth century. However, a similar jug was found in a tomb dated to 1379 (Dunning (1933, 133-34)).

The fill of the cellar of the Custom House above the rough chalk floor (Group A4) contained residual sherds of Pingsdorf, Normandy and Saintonge wares which originate from Group C2. The storage jar (No. 28) is similar to an example found at Fawkham (Dunning (1940, 219)) and is thought to be of thirteenth century date, and is, therefore, also residual.

To conclude, the pottery from Groups A1-A4 shows no definite evidence for further dumping of ceramics on the site beyond what had been dumped in the earlier Groups B and C. It also seems that the vast majority of imports in Groups C and D belong to the early fourteenth century; little can be dated to the later fourteenth century. In the provincial wares as a whole, there is a lack of highly decorated and polychrome types as well as stamped jugs in white ware. There is also a tendency for the provincial wares to imitate earlier forms, but in a different fabric. We therefore have inferior red or white slipped red ware copying the forms of the earlier white wares; cf. No. 175 with No. 306, and No. 184 with No. 241 and No. 310). Hence the repetition of form throughout the catalogue of wares from the Custom House site.

BIBLIOGRAPHY

- (with abbreviations used in the Medieval Pottery Report)
- BARTON (1965), K. J. Barton, "Medieval Pottery at Rouen", *Archaeol. J.* 102 (1965), 73-85.
- BECKMANN (1974), B. Beckmann, in Ed. V. I. Evison, H. Hodges and J. G. Hurst, "The Main Types of the First Four Production Periods of Siegburg Pottery", *Medieval Pottery from Excavation* (1974), 183-220.
- BIDDLE (1961), M. Biddle, "Medieval Pottery from Elstree", *Trans. St. Albans Archit. and Archaeol. Soc.* (1961), 65-76.
- BORREMANS (1966), R. Borremans et R. Warginaire, *La Ceramique D'Andenne Recherches de 1956-65* (Rouderdam, 1966).
- BRUIJN (1966), A. Bruijn, *De Middeleeuwse Pottenbakkerijen in Zuid-Limburg* (Amsterdam, 1966).
- CELORIA (1974), F. S. Celoria and J. C. Thorn, "A Medieval deposit from 244-46 Borough High Street, Southwark", *Trans. London and Middlesex Archaeol. Soc.* 25 (1974), 264-72.
- CHRISTIE'S (1973), J. Christie's Auction Cat., *Fine English Pottery and Wedgwood* (Monday May 21, 1973), 14-17.
- CLARK (1973), J. Clark in H. Chapman and J. Johnson, "Excavations at Aldgate and Bush Lane House 1972", *Trans. London and Middlesex Archaeol. Soc.* 24 (1973), 40-41.
- DAVISON (1967), B. K. Davison, "Three Eleventh Century Earthworks in England: Their Excavation and Implications", *Chateau Gaillard II* (Köln 1967), 41-43.
- DUNNING (1932), G. C. Dunning, "Mediaeval Finds in London", *Antiq. J.* 12 (1932), 177.
- DUNNING (1933), G. C. Dunning, "Inventory of Mediaeval Polychrome Ware found in England and Scotland", *Archaeologia* 83 (1933), 126-34.
- DUNNING (1937), G. C. Dunning, "A Fourteenth century Well at the Bank of England", *Antiq. J.* 17 (1937), 414-18.
- DUNNING (1940), G. C. Dunning, "London Mediaeval Pottery", *London Museum Mediaeval Catalogue* (1940), 210-29.
- DUNNING (1958), G. C. Dunning, "Report on Mediaeval Pottery from Joyden's Wood, near Bexley", *Archaeol. Cantiana* 72 (1958), 31-40.
- DUNNING (1959), G. C. Dunning, "Mediaeval Pottery from the Ingledew and Davenport Site, Southwark", in K. M. Kenyon, *Excavations in Southwark* (1959), 88-92.
- DUNNING (1960), G. C. Dunning, "Pottery of the Late Anglo-Saxon Period in England. The regional and chronological groups of local pottery, and imports from the Continent", *Medieval Archaeol.* 3 (1959), 31-78.
- DUNNING (1961), G. C. Dunning, "A Group of English and Imported Mediaeval Pottery from Lesnes Abbey, Kent; and the Trade in Early Hispano-Moresque Pottery to England", *Antiq. J.* 41 (1961), 1-12.
- DUNNING (1968), G. C. Dunning, "The Trade in Mediaeval Pottery around the North Sea", *Rotterdam Papers. A Contribution to Mediaeval Archaeology*, ed. J. G. N. Renaud (Rotterdam, 1968), 35-58.
- FROTHINGHAM, (1951) A.W. Frothingham, *Lustreware of Spain* (New York, 1951).
- GRIMES (1956), W. F. Grimes, "Excavations in the City of London", in *Recent Archaeological Excavations in Britain*, ed. R. L. S. Bruce-Mitford (London, 1956), 111-43.
- G. M. CAT. *Catalogue of the Collection of London Antiquities in the Guildhall Museum* (London, 1908).
- HOLLING (1964), F. Holling, "Thirteenth Century Jug from Guildford High Street", *Surrey Archaeol. Collect.* 61 (1964), 102-3 and F3, 2.
- HURST (1961), J. G. Hurst, "The Kitchen Area of Northolt Manor, Middlesex", *Medieval Archaeol.* 5 (1961), 211-99.
- HUGGINS (1970), P. J. Huggins, "Excavation of a Mediaeval Bridge at Waltham Abbey, Essex, in 1968", *Mediaeval Archaeol.* 14 (1970), 30-127.
- KEMPE (1832), A. J. Kempe, "An Account of various Roman Antiquities discovered on the site of the Church of St. Michael, Crooked Lane, and in Eastcheap, in forming the northern Approaches of the new London Bridge", *Archaeologia* 24 (1832), 190-200.
- MARSDEN (1968), P. Marsden, "Archaeological Finds in the City of London, 1965-66", *Trans. London and Middlesex Archaeol. Soc.* 22 (1968), 12-14.
- MARSDEN (1971), P. Marsden, "Archaeological Finds in the City of London, 1967-70", *Trans. London and Middlesex Archaeol. Soc.* 23, 1 (1971), 7-9.
- NEAL (1973), D. S. Neal, "Excavations at the Palace and Priory at Kings Langley, 1970", *Hertfordshire Archaeol.* 3 (1973), 31-72.
- RACKHAM (1973), B. Rackham, *Mediaeval English Pottery*
- SMITH (1969), M. Smith, "Mediaeval Britain in 1968", *Medieval Archaeol.* 13 (1969).
- TATTON-BROWN (1974), T. W. T. Tatton-Brown, "Excavations at the Custom House site, 1973", *Trans. London & Middlesex Archaeol. Soc.* 25 (1974), 117-219.
- THORN (1972), J. C. Thorn and D. M. Thorn, "Heraldic Jugs of Forgotten Potters", *London Archaeologist* I, pt 16 (Autumn 1972), 372-77.
- THORN (1973), J. C. Thorn, "Two Mediaeval Pots from Friday Street", *London Archaeologist* II, pt 3 (Summer 1973), 62-63.
- WOOD (1965), M. Wood, *The English Mediaeval House* (London, 1965).

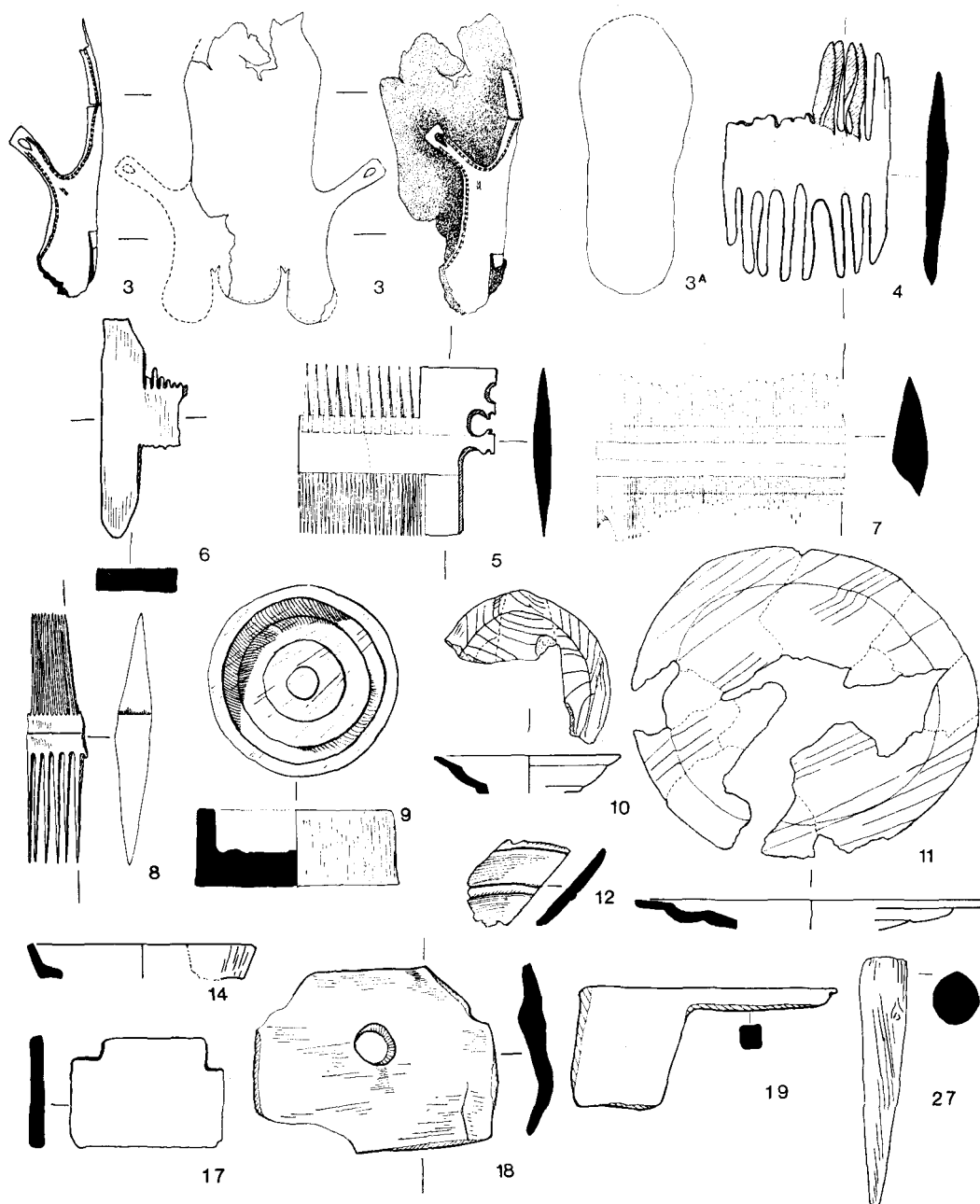


Fig. 25. Custom House Site. Small finds Nos. 3-4, 10-27 ($\frac{1}{4}$) and 5-9 ($\frac{1}{2}$)

SMALL FINDS

ROMAN FINDS

BY DR. MARTIN HENIG

FIG. 25:

Wood

1. (848, XIII-5). Part of a writing tablet. 76 × 65 × 2 mm. No trace of writing visible.

Iron

2. (II, I-24). Spike with square section and hollow socket. Length: 69 mm. Compare Tatton-Brown (1974, 191 and Fig. 37, No. 67). The earlier context here strengthens the case for these objects being of Roman date.

Leather

Miss Jennifer Jones writes:

3. (I-23). Small shoe, possibly left foot. Probably of one piece construction, as illustrated, but the front of the

shoe is too deteriorated for this to be certain. 168+ mm long, 2 mm thick. There is no evidence on the underside of the shoe of there having been any other sole layers added. Rouletted decoration as indicated. Possible? maker's mark just below the strap on the right side (Illustrated).

- 3a. (I-23). Sole, right foot, damaged near the toe. 165 mm long, 65 mm at ball of sole, 50 mm at waist, 5 mm thick. There are no stitch or nail holes and the edge of the sole slopes slightly outwards all the way round, as if it had been trimmed down from a larger piece (Illustrated).

MEDIEVAL FINDS

BY DR. MARTIN HENIG

FIG. 25:

Wood

4. (133, VI-25). Wool comb with teeth cut in two modules. Length: 95 mm, width: 125 mm (Illustrated).
5. (162, II-10). End of comb decorated in fretwork, teeth in two modules. Length: 54 mm, width: 50 mm (Illustrated). Compare the comb in Tatton-Brown (1974, 199 and Fig. 42, No. 245).
6. (113, V-13). End of comb, plain type. Length: 23 mm, width: 62 mm (Illustrated). Compare Ashmolean Museum (1967), 1090 (Fulbrook, London).
7. (148, I-12). Comb, almost complete. Length: 70 mm, width: 50 mm (Illustrated).
8. (151, I-12). Piece of wooden comb. Width: 70 mm (Illustrated).
9. (668, IV-48). Turned circular box (PYX). Dia: 50 mm-58 mm, external height: 22 mm, internal height: 12 mm (Illustrated). For Roman example, Marsden (1972, 50 and Fig. 19, No. 8).
10. (610, VII-10). Turned platter or shallow bowl. Dia. c. 105 mm, rim 10 mm wide. Trace of footing on underside (Illustrated). For a wooden bowl, Tatton-Brown (1974, 200, Fig. 42, No. 246), also Dunning (1937, 416, Fig. 2, No. 4).
- II (854, I-12). Turned platter, shallow. Dia. 190 mm, width of rim 20 mm (Illustrated).
12. (156, I-12). Piece of turned platter or bowl. Length: 65 mm (Illustrated).
13. (129, I-12). Piece of turned bowl. Straight rim, gr. length: 60 mm. For the type, Dunning (1937), 416, Fig. 2, Nos. 2, 3).
14. (119, I-12). Part of bowl or platter. Length: 400 mm, width: 20 mm (Illustrated).
15. (136, V-13). Part of rim of platter. Length: 25 mm, width: 23 mm.
16. (130, II-16). End of wooden handle. Length: 37 mm. For the type, Tatton-Brown (1974, 200, Fig. 42, No. 247), L. M. Medlat (1940, 53, No. A3041, Pl. XL, 9).
17. (120, II-16). Plaque or label, cut away at two corners. 88 × 62 × 7 mm (Illustrated).
18. (137, IV-42). Flat piece of wood, cut away at two corners. In the centre is a circular hole, 2.4 cm dia. 135 × 105 × 5 mm (Illustrated).
19. (994, XI-4). Shaped piece of wood in form of blade or paddle. Depth of blade: 70 mm. Total length: 146 mm (Illustrated).
- 20-27. Pegs (cf. Tatton-Brown (1974, 200, Fig. 42, Nos. 257-59)).

(615, IV-56) 40 mm; (667, III-10) 57 mm; (143, II-10) 55 mm; (822, XII-10) 66 mm; (118, I-12) 110 mm; (141, I-12) 100 mm; (131, I-23) 113 mm; (134, I-16); 140 mm (Illustrated).

- 28-53. Pins, perhaps used on the warping board, Pritchard (1954, 173), or in connection with baling of wool.

(117, III-15) 87 mm; (150, II-10) 128 mm; (121, I-12) 102 mm and 67 mm; (126, I-12) 113 mm; (127, I-12) 55 mm; (123, I-12) fragments 54 and 45 mm; (817, XIV-4) 85 mm; (160, II-10) 132 mm; (995, XII-4) 108 mm; (612, IV-56) 135 mm; (611, IV-56) point 25 mm; other fragments 20, 53 and 60 mm; (152, III-10) 69 mm; (135, V-13) 140 mm; (138, V-8) 77 mm; (144, II-16) 87 mm; (609, VII-10) 127 mm; (140, IV-37) 80 mm; (820, XIII-4) 111 mm; (821, XV-16) 121 mm; (672, V-8) 150 mm; (161, I-11) 96 mm; (116, II-11) 109 mm; (155, III-10) 118 mm; (114, V-8) 105 mm; (128, I-12) 72 mm; (145, I-15) 124 mm.

For other examples, cf. Tatton-Brown (1974, 200, Fig. 42, Nos. 251-56).

54. (132, IV-52). Three fragments of a pin, one with a groove around top: 35 mm. Other fragments 33 mm and 25 mm.

55. (613, III-27). ? Wooden peg, small depression in top. Length: 95 mm.

56. (154, I-12). Thin piece of wood. Length: 45 mm (?pin).

57. (147, III-15). Similar piece of wood. Length: 35 mm (?pin).

58. (855, I-12). Three fragments of a small wooden peg associated with a roofing tile. Hole in tile, dia.: 10 mm, length of pin: 22 mm.

59. (139, I-19). Piece of worked wood, possibly from bowl. Broken into an "arrow-like" shape. Length: 60 mm.

60. (115, I-19). Piece of worked wood. Length: 90 mm.

Iron

61. (710, XV-16). Needle or bodkin. Length: 132 mm. For the type, cf. Tatton-Brown (1974, 195 and Fig. 39, Nos. 84-91).

Tiles

FIG. 26:

- (a) Decorated (Printed) tiles (dimensions: lengths are each given as the greatest dimension of surviving fragments).
62. (454, II-17). Part of tile. Length: 105 mm, thickness: c. 30 mm-40 mm (Illustrated). Rosette (?originally with 9 petals) within circle. L. M. Med. Cat. (1940, 242 and Fig. 78, No. 25).

63. (453, II-14). Part of tile. Length: 100 mm, thickness: 28 mm (Illustrated). Quartered design; (?) castellated design above; lion rampant below.
64. (455, II-15). Part of tile. Length: 105 mm, thickness: 25 mm (Illustrated). Four-petalled flower, solid semi-circles between the petals. Hohler (1941-46, 35 and 112, No. P. 79).
65. (552, IV-23). Part of tile. Length: c. 60 mm, thickness: 25 mm (Illustrated). Lion-rampant within lozenge; trace of indeterminate design in outer angles.
66. (462, III-10). Part of tile. Length: 98 mm, thickness: 28 mm (Illustrated). Two semi-circles enclosing solid semi-circle. Trace of ? similar design repeating itself on another side; also to central feature.
67. (551, II-18). Part of tile. Length: 60 mm, thickness: 20 mm (Illustrated). Part of two triangles from a design of three triangles, the centre ones combining as a St. Andrew's cross. Similar conception to No. 63. For the type, L. M. Med. Cat. (1940, 243 and Fig. 79, No. 45).
68. (450, I-4A). Part of tile. Length: 65 mm (tile split) (Illustrated). Rosette between two curving lines. Type possibly as Keen (1973, 90-93, No. 2), attributed to the "Westminster" tiler.
69. (456, II-18). Part of tile. Length: 90 mm, thickness: 20 mm (Illustrated). Indeterminate, possibly vegetal pattern.
70. (449, I-15). Corner of tile. Length: 60 mm, thickness: 20 mm. Trefoil, arising from circle or arc of circle (Illustrated).
71. (452, I-00). Fragment of tile. Length: 65 mm, thickness: 15 mm (Illustrated). Rosette within circle, from which arise (?) fleurs-de-lis. Compare type with Hohler (1941-46, 34 and 110, No. P.67).
72. (553, IV-39). Corner of tile. Length: 65 mm, thickness: 18 mm (Illustrated). Compare Hohler (1941-46, 38 and 116, No. P.122).
73. (554, IV-35). Corner of tile. Length: 57 mm, thickness: 25 mm (Illustrated). Head of Griffin; arc of circle above.
74. (451, II-3). Fragment of tile. Length: 45 mm (tile split) (Illustrated). Fleur-de-lis. Compare L. M. Med. Cat. (1940, 247 and Fig. 82, Nos. 67, 69 and 72).
75. (888, VII-10). Corner of tile, yellow surface colour. Length: c. 60 mm, thickness: 27 mm. not decorated
76. (100, II-19). Fragment with uneven glaze. Length: 75 mm, thickness: 12 mm.
77. (1008, II-12). Fragment with uneven glaze. Length: 75 mm, thickness: 14 mm.
78. (549, III-36). Corner of tile with olive-green glaze.
79. (550, VI-25). Corner of tile with olive-green glaze. Length: 55 cm, thickness: 21 mm.
80. (1009, II-14). Large piece of tile, brownish glaze. Length: 125 mm, thickness 2 mm.
81. (457, III-16). Vitified brick with greenish glaze. Length: 100 mm, width: 70 mm, thickness: 60 mm.

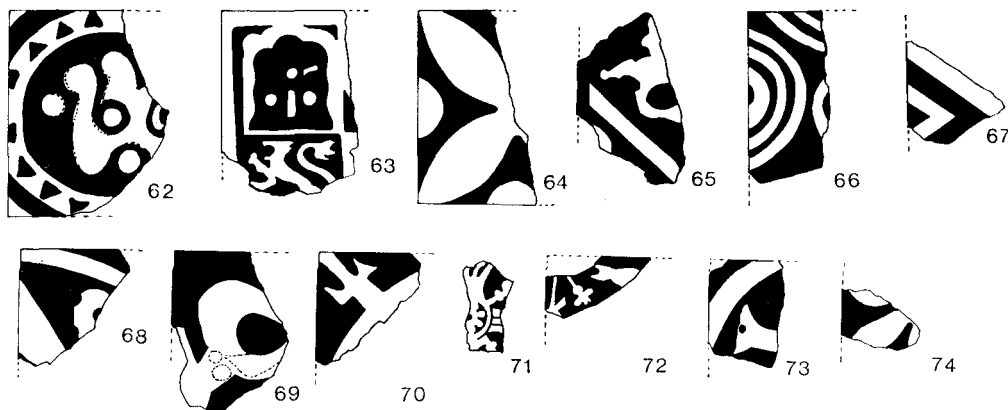


Fig. 26. Custom House Site. The Medieval Tiles ($\frac{1}{4}$)

MEDIEVAL LEATHER

BY JENNIFER JONES

The leather was preserved in the layers of peat and organic material which built up to the north and south of the second period medieval timbers.

Because of the enormous quantity of leather found, it has not been possible to describe each scrap separately. This description has therefore had to be selective. All whole soles and sections of upper in a good state of preservation have however been described, plus any examples with features of interest.

The catalogue has been split into convenient sections (*i.e.* whole shoes, soles, uppers, sheaths, other objects). Owing to the nature of the layers in which the leather was found, dating across the whole site would seem to be largely contemporary, thus permitting the deposit to be classified in this manner. The exact layer for each object is however given.

Measurement "A" is taken across the ball of the foot, or the widest point of the sole.

Measurement "B" is taken across the waist or narrowest point of the sole.

The numbers in brackets are, first the index card number; then the trench and layer.

Whole shoes

FIG. 27 and Pls. 4, 5:

1. (51, I-12). Almost complete adolescent's shoe. Right foot. Sole, worn at back edge and near the toe, c. 210 mm long, 77 mm at "A", 32 mm at "B". The round-toed uppers are made largely from one piece of leather, joining at the inside instep with a seam running for c. 10 mm above the sole, and the rest of the opening is fastened presumably with a thong. Lace holes only remain. A small triangular piece fitting into a gap above the sole, near the inside instep, is missing. Also present is a loose, rectangular piece, with lace holes, fitting along the existing top edge of the inner side of the uppers. The uppers leather is 2 mm thick; the stitches joining the upper to the sole are c. 3 per 20 mm. The uppers would extend well above the ankle in use. Turnshoe construction (Pl. 4).
2. (7, II-12). Infant's shoe. Left foot. Sole, unworn, 130 mm long, 42 mm at "A", 26 mm at "B", and unusually thick at 5 mm. The uppers are in one piece, joining at the inside instep. The join is stitched for c. 15 mm above the sole, the rest of the seam presumably fastened with a thong. Small lace holes

remain. Bootie is unusual in that it includes a welt, though it is of turnshoe construction: the welt is 1 mm thick, and 10 mm wide, though folded over when in use. It is included between the sole and the upper when the shoe is stitched together. The stitches are c. 1 per 10 mm, though unevenly placed (Pl. 5).

3. (69, XI-2). Infant's shoe. Left foot. Sole very damaged 120 mm long, 3 mm thick. Uppers of one piece of leather 1 mm thick, but the existence of lace holes was difficult to establish because of damage. No welt present. Turnshoe. Very similar to No. 2 above, but pointed toe to sole. Sole illustrated in No. 18.
4. (182, V-8). Front half of shoe, comprising sole, insole and upper, complete to the waist of the sole. Sole and insole still fitting neatly inside each other. Sole 80 mm wide at "A", 3 mm thick. Insole 77 mm wide at "A", 2 mm thick. Left foot. Sole very worn under big toe joint, but the insole is not. Nailmarks on the underside and around the outside edge of the sole suggest that it was patched once before being finally discarded. Pointed toe. Upper rather damaged, present as far as instep, rounded toe and fragmentary thong, but the method of fastening is uncertain. Turnshoe; the stitches are c. 1 per 10 mm. Sole and insole illustrated.

SOLES (Fig. 27):

There were some 1,007 pieces of sole examined, the majority being small, worn or cut pieces. Only the whole examples and those showing noteworthy points of interest have been described.

All the soles examined were turnshoe soles, with the exception of No. 25, unstratified from a pile hole under the south-east wing of the Custom House. As such, they all displayed the usual stitch channel 3-5 mm from the edge of the sole on the upper or flesh side of the leather. The tension of the thread used for stitching the soles gives this channel a scalloped appearance. This stitch channel has not been indicated on the majority of illustrations, but it was present in every case. Turnshoe soles require firm leather (3-5 mm) thick, as they are directly in contact with the ground when walking. There is, in general, no insole. The sole tends to wear most at the toe and heel, but many of the examples under consideration were also extensively worn under the ball of the foot, where the sole bends in walking; Goodfellow and Thornton (1972, 97). The shape of the soles is most comparable to the range illustrated from Lund in Sweden, of 14th century date, Blomquist (1938). Comparisons can also be drawn from among the shoes found at Clare Castle, Suffolk (1350-1450), Thornton (1958), and shoes found at the Clarendon Hotel Site, Oxford; Sturdy (1959).

Measurements "A" and "B" as used in the catalogue are those taken across the widest part of the sole, under the ball of the foot ("A") and across the waist or narrowest part ("B"). The solid dots in the illustrations indicate holes and stitches penetrating right through the leather.

5. (10, I-12). Sole in two pieces. Turnshoe. Left foot. Worn at toe and outside heel edge. Cut at waist, possibly indicating previous repair of heel or toe section. 258 mm long, 90 mm at "A", 38 mm at "B". Round toe (not illustrated).
6. (10, I-12). Sole. Right foot. Turnshoe. Pointed toe. 267 mm long, 82 mm at "A", 44 mm at "B". Hole in heel section.
7. (10, I-12). Turnshoe sole. Right foot. Worn at toe, heel. 260 mm long, 90 mm at "A", 39 mm at "B". Round toe (not illustrated).
8. (10, I-12). Turnshoe sole. Left foot. Worn at heel. c. 265 mm long, 17 mm at "A", 45 mm at "B". Round toe.
9. (19, II-16). Turnshoe sole. Right foot. Worn at outside heel. 210 mm long, 60 mm at "A", 18 mm at "B". Round toe.
10. (22, II-12). Turnshoe sole. Right foot. Worn near

toe and outside heel. 210 mm long, 71 mm at "A", 36 mm at "B". Round toe (not illustrated).

11. (46, III-33). Turnshoe sole, very damaged around the toe. Unusual in having no appreciable waist. 124 mm long, c. 50 mm at "A", 43 mm at "B". It is not possible to say whether it is a right or left foot. This sole comes from a layer which contained much Roman material as well as medieval. Tatton-Brown (1974, 149).
12. (47, I-14). Turnshoe sole. Right foot. Worn at heel. c. 161 mm long, 64 mm at "A", 35 mm at "B". Round toe (not illustrated).
13. (49, I-14). Turnshoe sole. Right foot, extensively worn at heel, also worn at toe. 230 mm long, 85 mm at "A", 41 mm at "B". Pointed toe (not illustrated).
14. (51, I-12). Turnshoe sole. Right foot. Worn at toe and heel. c. 178 mm long, 67 mm at "A", 39 mm at "B". Round toe (not illustrated).

15. (51, I-12). Half turnshoe sole, cut off at waist, suggesting heel repair. Otherwise unworn. Left foot. 192 mm long, 90 mm at "A". Very pointed toe (not illustrated).
16. (56, I-12). Turnshoe sole. Right foot. Hole near toe and worn through above outside heel. 216 mm long, 80 mm at "A", 43 mm at "B". Pointed toe (not illustrated).
17. (66, XII-5). Turnshoe sole. Left foot. Worn through under the ball of the foot. 280 mm long, 106 mm at "A", 50 mm at "B". Round toe. The very round toe and broad form of this example suggests a boot rather than a shoe (not illustrated).
18. (69, XI-2). Turnshoe sole. Left foot. Worn along outside heel. c. 120 mm long, 40 mm at "A", 27 mm at "B". Pointed toe.
19. (168, IV-56). Turnshoe sole. Left foot. Unworn. 127 mm long, 45 mm at "A", 25 mm at "B". Round toe.
20. (86, XI-4). Turnshoe sole. Left foot. Worn at inside heel edge. 290 mm long, 100 mm at "A", 58 mm at "B". Round toe (not illustrated).
21. (86, XI-4). Turnshoe sole. Left foot. Worn under ball of foot. 270 mm long, 90 mm at "A", 48 mm at "B". Round toe (not illustrated).
22. (116, I-12). Turnshoe sole, with insole surviving to waist of sole. Left foot. 250 mm long, 89 mm at "A", 50 mm at "B". Insole very thin. Pointed toe. Sole damaged along heel edge.
23. (149, IV-48). Turnshoe sole. Left foot, damaged along heel edge. 237 mm long, 80 mm at "A", 42 mm at "B". Pointed toe (not illustrated).
24. (154, IV-50). Turnshoe sole. Right foot. Worn on inside edge near toe. 180 mm long, 57 mm at "A", 26 mm at "B". Round toe (not illustrated).
25. (194, see introduction p. 0). Sole left foot. Not of turnshoe construction. Damaged at the toe, and very worn along the back heel edge. This example is very thick at 6 mm. The stitch holes pass straight down through the thickness of the leather. A depression on the underside just in front of the back edge suggests there may have been a heel attachment of some sort there. The leather is grain side up—a more usual arrangement for insoles. This example is probably much later in date than the rest of the material. 220 mm long, 75 mm at "A", 37 mm at "B" (not illustrated).
26. (187, V-11). Turnshoe sole. Left foot. Unworn. 142 mm long, 52 mm at "A", 35 mm at "B". Pointed toe (not illustrated).
27. (187, V-11). Turnshoe sole. Right foot. Worn around toe. 240 mm long, 84 mm at "A", 33 mm at "B". Pointed toe (not illustrated).
28. (185, VI-15). Turnshoe sole. Right foot. Worn under ball of foot and heel. 280 mm long, 110 mm at "A", 63 mm at "B". Round toe (not illustrated).
29. (179, IV-26). Turnshoe sole. Left foot. Worn at inside heel edge. 149 mm long, 50 mm at "A", 25 mm at "B". Round toe (not illustrated).
30. (160a, VI-26). Turnshoe sole. Left foot. Worn at heel edge and near the toe. 275 mm long, 94 mm at "A", 42 mm at "B". Pointed toe (not illustrated).
31. (160b, VI-26). Turnshoe sole. Right foot. Damaged along the heel edge. 255 mm long, 86 mm at "A", 42 mm at "B". Round toe (not illustrated).
32. (160a, VI-26). Turnshoe sole. Right foot. Worn along outside heel edge. 250 mm long, 82 mm at "A", 34 mm at "B". Pointed toe (not illustrated).
33. (204, VI-26). Turnshoe sole. Right foot. Worn through near toe, and in heel part. 270 mm long, 92 mm at "A", 35 mm at "B". Pointed toe (not illustrated).
34. (222a, IV-25). Turnshoe sole. Right foot. Extreme edge around toe area worn away. c. 215 mm long, 80 mm at "A", 38 mm at "B". Round toe (not illustrated).
35. (222b, IV-25). Turnshoe sole. Left foot. Damaged along heel edge. c. 140 mm long, 50 mm at "A", 28 mm at "B". Pointed-round toe (not illustrated).
36. (222c, IV-25). Turnshoe sole. Left foot. Worn along heel edge. c. 155 mm long, 60 mm at "A", 30 mm at "B". Round toe (not illustrated).
37. (240, VI-15). Turnshoe sole. Left foot. Worn along inside toe edge. 195 mm long, 66 mm at "A", 39 mm at "B". Pointed toe (not illustrated).
38. (248, V-13). Turnshoe sole. Right foot. Hole worn under heel. 140 mm long, 45 mm at "A", 32 mm at "B". Pointed toe (not illustrated).
39. (258a, III-10). Turnshoe sole. Left foot. Worn along inside to edge, and around heel edge. 250 mm long, 86 mm at "A", 39 mm at "B". Pointed toe (not illustrated).
40. (258b, III-10). Turnshoe sole. Left foot. Worn along outside heel edge. 235 mm long, 79 mm at "A", 35 mm at "B". Round toe (not illustrated).
41. (259a, III-10). Turnshoe sole. Left foot. Slightly damaged near the toe, inside edge. 270 mm long, 95 mm at "A", 49 mm at "B". A row of nail holes begins 21 mm below the edge of the toe. Six are visible in a line on the upper side of the sole, and a further two on the heel 38 mm from the back edge. On the underside there are a great many other nail marks, suggesting the addition of an extra layer to the forepart of the sole, and either an additional layer or repair piece to the heel, it being worn through along the outside edge. Pointed-round toe (not illustrated).
42. (259b, III-10). Turnshoe sole. Right foot. 250 mm long, 79 mm at "A", 37 mm at "B". Round-pointed toe (not illustrated).
43. (259c, III-10). Turnshoe sole. Right foot. Worn along heel edge and inside edge of toe. 215 mm long, 79 mm at "A", 42 mm at "B". On the underside are a number of nail or track marks, indicating where either an additional layer was added or a repair was made to cover the hole near the toe—probably the latter. Round toe (illustrated).
44. (260, III-10). Turnshoe sole. Right foot. 240 mm long, 79 mm at "A", 30 mm at "B". Pointed toe (not illustrated).
45. (270b, XV-21). Turnshoe sole. Right foot. 260 mm long, 88 mm at "A", 35 mm at "B". Worn slightly along outside edge. Pointed toe (illustrated).
46. (270a, XV-21). Turnshoe insole. Right foot. Very thin leather, and a stitch channel very close to the edge. 258 mm long, 95 mm at "A", 48 mm at "B". 2 mm thick. Round toe (not illustrated).
47. (271, I-12). Turnshoe half sole. Right foot. The original toe has been cut off, and a repair piece (now missing) has been added by sewing. 68 mm at "A" (illustrated).
48. (274, XV-17). Turnshoe sole. Right foot. Slightly worn along inside heel edge. 135 mm long, 47 mm at "A", 25 mm at "B". Pointed toe (not illustrated).
49. (288, XIII-3). Turnshoe sole, in two parts, cut at waist. Left foot. Cut possibly indicating repair either to toe or heel section. 175 mm long, 66 mm at "A", 30 mm at "B". Round toe (not illustrated).

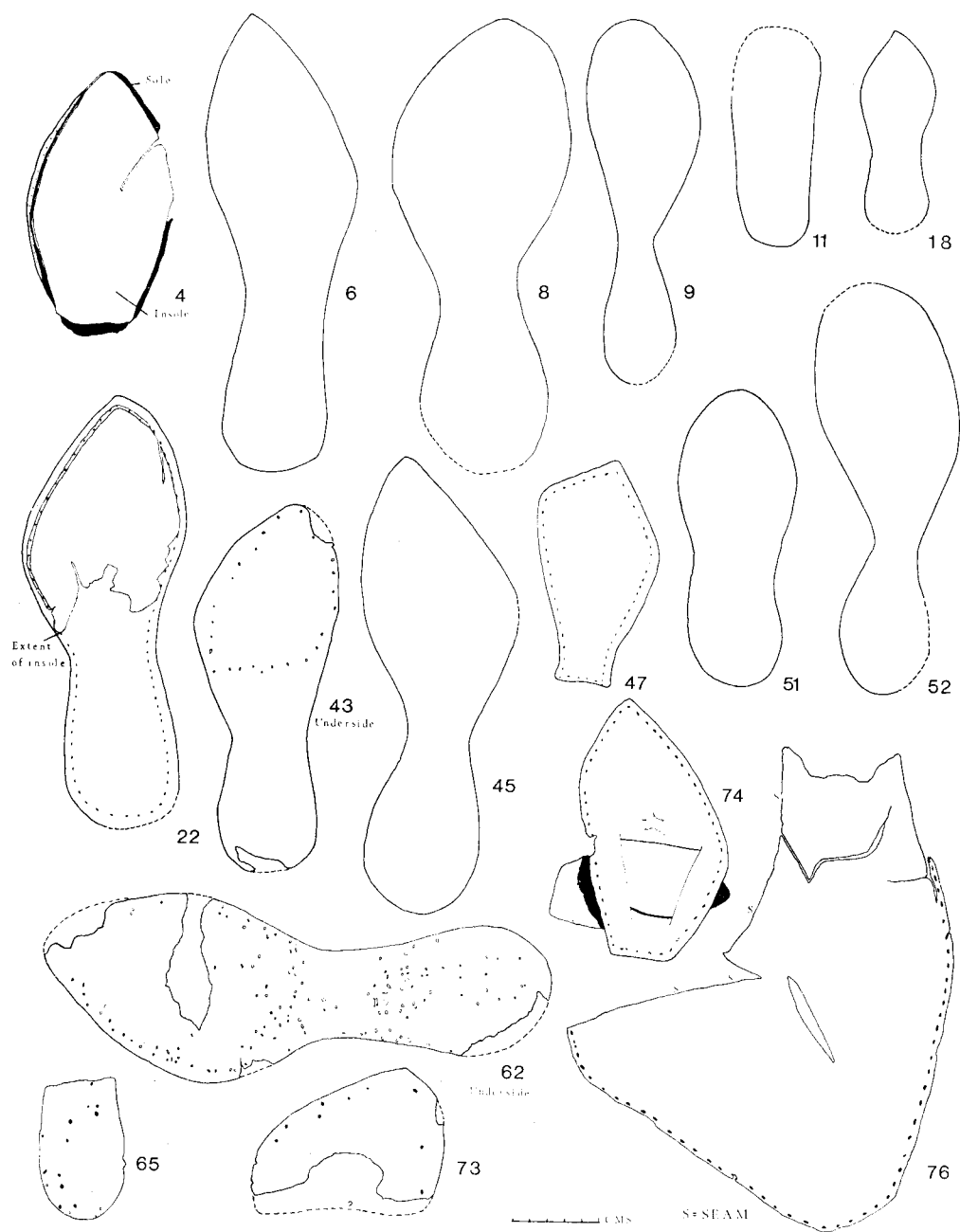


Fig. 27. Custom House Site. Medieval Leather Nos. 4-76 ($\frac{1}{4}$)

50. (295a, XIII-3). Turnshoe sole. Left foot. Worn at outside edge near toe. 215 mm long, 88 mm at "A", 58 mm at "B". Round toe (not Illustrated). Very similar in shape to No. 51.
51. (295b, XIII-3). Turnshoe sole. Left foot. 167 mm long, 66 mm at "A", 47 mm at "B". Round toe (Illustrated).
52. (500, IV-14). Turnshoe sole. Right foot. Worn at inside toe edge, and outside heel edge. 240 mm long, 81 mm at "A", 23 mm at "B". Round toe (Illustrated) (cf. Thornton and Goodfellow (1972, 105, No. 6)).
53. (301, I-12). Turnshoe sole. Left foot. Worn at inside toe edge and outside heel edge. 270 mm long, 87 mm at "A", 39 mm at "B". Pointed toe (not Illustrated).
54. (305, IV-48). Turnshoe sole. Left foot. 145 mm long, 52 mm at "A", 35 mm at "B". Round toe (not Illustrated).
55. (6, I-11). Heel repair piece. Worn away along back edge. 80 mm long, 70 mm wide, 3 mm thick. Nail or tack marks on both sides. Right foot (not Illustrated).
56. (148a, VI-29). Very damaged heel or toe repair piece. 2 mm thick. A number of very large holes penetrated the leather (3 mm-14 mm long). Also a thin piece of thong, 7 mm wide is slotted into the piece for no apparent reason (not Illustrated).
57. (148b, VI-29). Heel repair piece, very damaged. Nine holes penetrating the leather and a number of other nail marks on the underside. 4 mm thick (not Illustrated).
58. (75, XI-4). Toe repair piece, or additional sole layer, damaged at waist. 139 mm long, c. 92 mm wide, 3 mm thick. Tack marks around the extreme edge of the underside and also two centrally placed irregular rows (not Illustrated). Left foot.
59. (314, XIII-3). Two pieces of very thin leather (0.5 mm thick). Stitch holes around the edges. One piece is a pointed toe shape 107 mm long, 91 mm wide, the other sub-rectangular 100 mm long, 32 mm wide. Both the pieces have small, round all over perforations 2 mm across and c. 2 per 10 mm. Possibly two layers as many of the perforations coincide. Possibly a sort of ventilated insole, though very thin (not Illustrated).
60. (169, V-8). Rectangular repair piece. Very worn around the edges, so original shape uncertain. 123 mm long, 51 mm wide, 1.5 mm thick. Many nail marks, mostly around the edges, on both sides (not Illustrated).
61. (166a, VII-10). Heel repair piece, 75 mm long, 57 mm wide, 4 mm thick. Worn through on the back of the heel. Nail marks around the edges on the underside (not Illustrated).
62. (166b, VII-10). Right foot turnshoe sole. 290 mm long, 106 mm at "A", 51 mm at "B", 3 mm thick. Worn under the ball of the foot and around outside heel edge. The underside shows many nail marks, probably indicating either the addition of extra sole layers or repair pieces to cover the holes in the toe and heel parts. The round toe and broad form suggest a boot rather than a shoe. This was the largest sole examined (Illustrated).
63. (217a, IV-52). Toe repair piece. Right foot. Very damaged along both edges. 111 mm long, 3 mm thick. Numerous nail marks around the edges and over the surface of the underside. Pointed toe (not Illustrated).
64. (217b, IV-52). Repair piece. Damaged at both ends, possibly originally whole sole. 165 mm long, c. 44 mm wide at waist, 3 mm thick. Nail marks scattered over the surface of the upper side, concentrated around the waist (not Illustrated).
65. (222a, IV-25). Heel repair piece, 80 mm long, 41 mm wide, 4 mm thick. A number of holes penetrate the leather, especially around outside heel edge. Right foot (Illustrated).
66. (222b, IV-25). Repair piece, or discarded sole section, comprising waist and part of heel and toe section, edges worn away. 111 mm long, 40 mm wide at waist, 3.5 mm thick. A number of small nail holes penetrate the heel section (not Illustrated).
67. (222c, IV-25). Sole forepart. Left foot, surviving to waist. 180 mm long, 86 mm at "A", 39 mm at "B", 5 mm thick. Nail marks around the edge and across the waist of the underside, suggest the addition of an extra layer to the front area of the sole. Round toe (not Illustrated).
68. (263b, III-10). Toe repair piece. Left foot. Damaged towards waist. 56 mm long, 69 mm wide, 3 mm thick. Nail marks around the edge of the piece on both surfaces. Round toe (not Illustrated).
69. (263a, III-10). Heel repair piece. Right foot. Worn through around outside heel edge. c. 85 mm long, 34 mm wide at waist. Nail marks around the edge of the underside (not Illustrated).
70. (212, IV-42). Turnshoe sole. Left foot, surviving to waist. Worn away at toe. c. 185 mm long, 82 mm at "A", 38 mm at "B". 4 mm thick. Nail marks around the toe suggest the addition of a semi-circular patch to cover the hole worn there. Round toe (not Illustrated).
71. (259b, III-10). Turnshoe sole. Right foot forepart. Damaged at toe, and surviving to just above waist. c. 185 mm long, 115 mm wide at "A". Nailmarks on underside suggest repair pieces were added to cover areas of wear before the sole was finally discarded. Pointed-round toe. 3 mm thick (not Illustrated).
72. (259d, III-10). Turnshoe sole. Left foot, surviving to just below waist. Damaged at toe. 137 mm long, 82 mm at "A", 45 mm at "B", 4 mm thick. Nailmarks on underside suggest the addition of a repair piece to cover wear at the toe. Round-pointed toe (not Illustrated).
73. (257, III-10). Toe repair piece, damaged towards waist. Right foot. 78 mm long, 105 mm at "A", 2 mm thick. Nail holes around the edge of the piece. Pointed toe (Illustrated).
74. (277, III-10). Half sole, pointed toe. Right foot. Two slashes have been cut through the sole and a wide piece of strap threaded through (41 mm wide), the ends now torn off. Possibly represents a rough method of holding the shoe on when it was in a state of great disrepair—although it would seem even then a desperate sort of measure (Illustrated).
75. (326, 374, V-16). Piece of pointed sole, with a thin long bone (5 mm diam.) stuck through it, just below the point. The bone possibly was being used as a sort of needle when the point of it broke, or it became stuck. The hole created is much too large for a stitch. Possibly an attempt to make a thonged sandal out of an old sole, with the hole intended for a thong to pass between the big toe and the next one (not Illustrated).

UPPERS (Fig. 27, No. 76 and Fig. 28):

There were some 500 pieces of upper examined, but most of these were damaged and fragmentary. Most were of a size to be parts of a shoe but some probably came from larger articles such as boots (e.g. Nos. 106 and 198). The most complete fronts, displaying different styles, have been illustrated, plus an example of a back, a front and a heel stiffener. Any other pieces with notable features have also been described.

The shoe fronts are illustrated flattened out for comparison of stylistic detail.

The shoe fronts have the closest parallels once again with the shoes from Lund, Sweden, Blomquist (1938) but also with the Clarendon Hotel site, Oxford, Sturdy (1959), and Oakham Castle, Rutland, Gathercole (1958).

Illus. No. 108 represents a reconstruction of the various parts of a shoe, seen from the side, showing their name and position. The heel stiffener is indicated by a broken line, and the other broken line shows where the seam would be when the uppers were fashioned from one piece of leather.

Illus. No. 109 shows a section through a turnshoe, demonstrating the mode of construction, Waterer (1940, 176) for this and other methods of medieval shoe construction.

76. (313, I-12). Front section of round-toe shoe, surviving to instep on one side and to the heel on the other. The instep seam would indicate that the uppers were constructed in one piece, joining at this seam. No indication of method of fastening. 2 mm thick; edge stitches 3 per 20 mm, other stitches 5 per 20 mm. Turnshoe, probably a sort of bootee with high ankle flaps. The slit in the middle of the upper front does not seem to have any purpose (Illustrated).
77. (172a, VII-10). Front section of round-toed turnshoe, damaged all around the edge. Wide projecting strap with two buttonholes 12 mm long. The shoe survives to the quarters seam on both sides. Quarters and back are missing. The shoe probably fastened with either a pair of large thongs or actual buttons, now missing, on the opposite edge of the upper to the strap. There is a small hole, 7 mm long, presumably for a thong, in the middle of the instep edge. Leather 2 mm thick; the seam stitches are 3 per 10 mm (Illustrated).
78. (172b, VII-10). Front section of round-toed turnshoe, surviving to quarters seam on one side and heel on the other. Quarters now missing. Left front seam edge damaged. Very similar to No. 77. Projecting strap, with two buttonholes 16 mm long. In this case the thong survives in the centre front, but is too small to be part of the fastening arrangement. Leather 2 mm thick; edge stitches are 2 per 10 mm, the other stitches are 5 per 20 mm (Illustrated).
79. (225, IV-60). Front of round-toed turnshoe, probably of one-piece construction as the lace holes survive on the left side. The Quarters, joining the right side, are missing. Hole in central instep for thong. May have been fastened by a buckle and strap affixed to opposing truncated central edges, marked with a seam, just below the instep edge. Leather 1.5 mm thick; edge stitches are 3 per 20 mm, other stitches are 2 per 20 mm (Illustrated).
80. (258, III-10). Front of round-toed turnshoe, very damaged around the toe area, and also rather large. Again probably of one-part construction, though the piece is too deteriorated to be certain. There were probably quarters, now missing. The piece has a narrower projecting strap than 77 and 78, and only one large buttonhole, 20 mm long. Hole for thong on instep edge. 1 mm thick, stitches 2 per 10 mm (not around the edge) (Illustrated) (cf. Blomquist (1938, 203, No. 25)).
81. (259, III-10). Front section of round-toed turnshoe. Quarters missing. One projecting strap with no buttonhole—possibly there was a buckle attachment here, or a thong arrangement. Uppers damaged at toe and around outside edge. Hole for thong on instep. Leather 2 mm thick; edge stitches 2 per 10 mm, other stitches 4 per 10 mm (Illustrated).
82. (6, I-11). Rectangular piece of upper 195 mm long, 110 mm wide, with traces of stitch holes along one edge. Possible opening down the middle, but leather very damaged (not Illustrated).
83. (8, I-12). Round toed piece of upper, 4 mm thick. Thong surviving in instep edge. Projecting strap with buttonhole. Similar to No. 80 (not Illustrated).
84. (8, I-12). Damaged rectangular piece, 250 mm long, 80 mm wide, stitch holes along 3 edges. Probably piece of boot upper (not Illustrated).
85. (9, I-12). Possible section of boot upper, damaged along bottom edge, sides 200 mm long, the top c. 100 mm, angled to form a point. Five lace holes along one edge. c. 170 mm wide (not Illustrated).
86. (10, I-12). Piece sewn inside uppers to strengthen the lace hole area. Complete. Left side 85 mm long, 20 mm wide, right side 95 mm long, 17 mm wide. Overstitched all the way round. 1 mm thick (Illustrated).
87. (19, II-16). Portion of round-toed upper, very damaged. One projecting strap with buttonhole, and thong in place in instep edge. Similar to No. 80 (not Illustrated).
88. (20, II-19). Lace-hole strengthener (like No. 86). Overstitched round three sides. Damaged at top end. 220 mm long, 40 mm wide tapering to 15 mm, 1.5 mm thick. Probably part of a boot, considering its length (Illustrated).
89. (22, II-12). Round-toed uppers, damaged at toe and beyond instep. Hole for thong in instep. No indication of fastening method. 3 mm thick, seams on uppers 7 stitches per 50 mm (not Illustrated).
90. (22, II-12). Damaged piece, possibly back of uppers (not Illustrated).
91. (38, I-12). Part of round-toed upper, front edge cut away. Knotted thong in place in the middle of the instep edge. No indication of fastening method (not Illustrated).
92. (56, I-12). Fragment of upper with fluted appearance along the top edge, either for decoration or owing to oversteitching. Damaged (not Illustrated).
93. (51, I-12). Heel stiffener. 64 mm long, 55 mm wide, tapering to 8 mm, 1 mm thick. The inside surface of No. 1 shows stitch holes where such a stiffener was attached (Illustrated).
94. (68, XII-5). Uppers of child's round-toed bootee, missing quarters. Worn at toe and very thin (1.5 mm-0.5 mm). No trace of fastening method (not Illustrated).

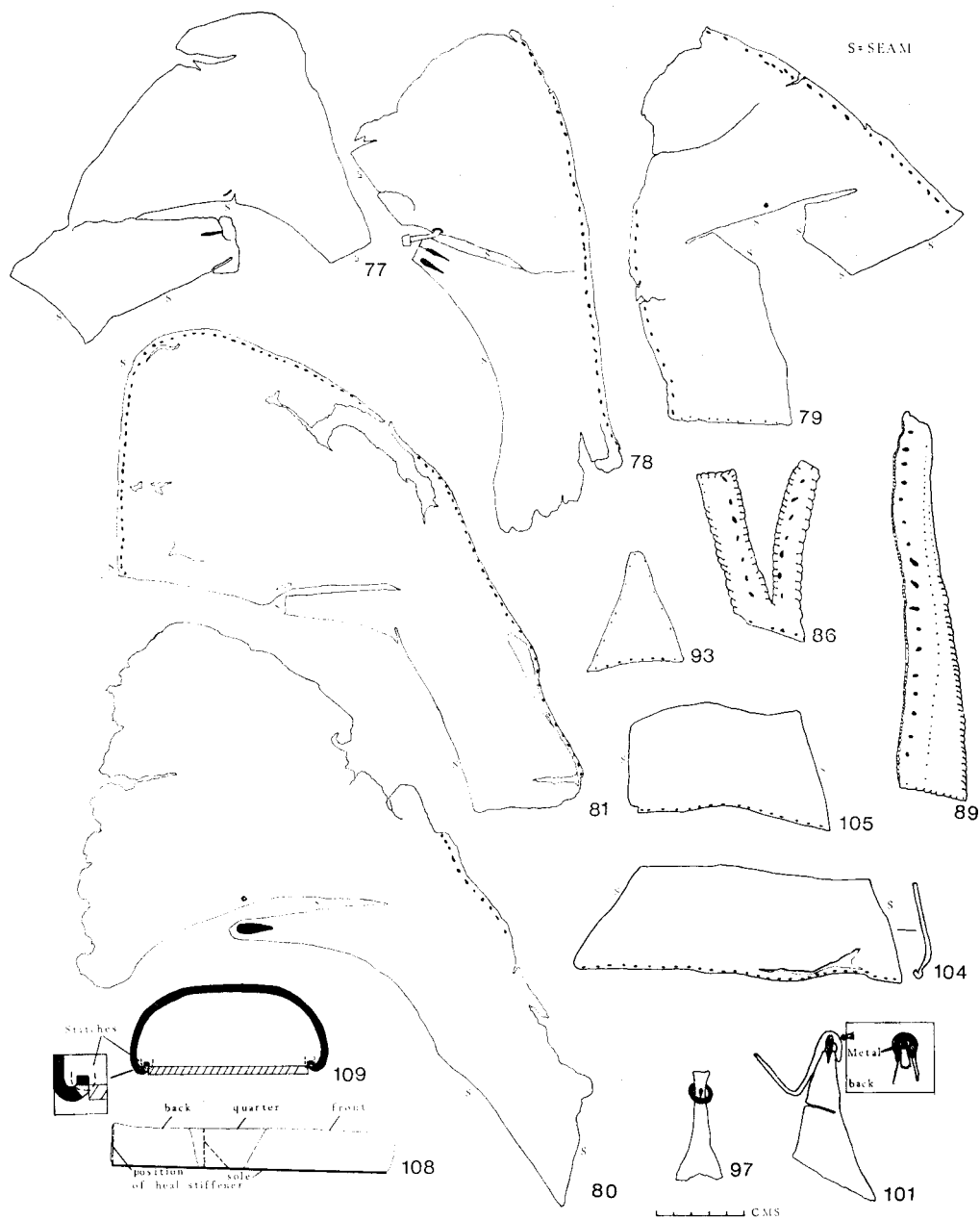


Fig. 28. Custom House Site. Medieval Leather Nos. 77-109 ($\frac{1}{4}$)

95. (86, XI-4). Front piece of upper, with rounded point to the toe. Only 80 mm wide across instep, so there was possibly an extra strip now missing running round the front below this piece and joined to the sole. Stitch holes round the vamp are 3 per 10 mm (not illustrated).
96. (107, I-12). Portion of round-toed front with button-hole on projecting strap (as No. 80), but there is no thong on the instep (not illustrated).
97. (137, I-12). Section of projecting strap part of upper. 60 mm long, 1.5 mm thick, with small round ring of buckle still in place, 13 mm diam. (illustrated).
98. (164, VI-28). Piece probably belonging to boot 120 mm long, c. 100 mm wide. The bottom edge is cut up into a "V"-shape, the top edge angled to form a point. Ten lace holes down one edge (not illustrated).
99. (179, IV-26). Front part of round-toed bootie, no sign of any opening or fastening method. Seam stitches 2 per 10 mm, leather 3 mm thick. Left foot. This upper possibly belongs with sole No. 29 (not illustrated).
100. (222, IV-25). Front part of round-toed shoe, or possibly boot as the vamp extends beyond the instep, where it is cut, with no sign of opening or fastening method. Rather fragmentary. Leather 2 mm thick. Left foot. Stitch holes 2 per 10 mm (not illustrated).
101. (259, III-10). Triangular section of upper. 73 mm long, with metal, leather-covered buckle and tongue of buckle still in place. Leather 1 mm thick, ring 3 mm thick. Stitch holes around all 3 sides of leather (illustrated).
102. (259, III-10). Lace hole strengthener, as No. 86. 85 mm long right side, 95 mm long on left side, 35 mm wide at base (not illustrated).
103. (275, II-12). Front of round-toed shoe, surviving to instep. Quarters and back missing. 2 mm thick. Thong surviving on instep edge of upper (not illustrated).
104. (275, II-12). Back portion of shoe. 185 mm long, 61 mm wide, 2 mm thick. The illustration also shows a section through this back, showing the bulge above the bottom seam where the back has been "trodden down" in wear (illustrated).
105. (267, XIV-4). Quarter, 106 mm long, 60 mm wide, 1.5 mm thick (not illustrated).
106. (277, III-10). Piece probably from boot. Top edge angled to a point, bottom edge damaged. c. 120 mm long, 4 mm thick. Has 3 threaded thongs ending in buttonholes (cf. Gathercole (1958, 32, Nos. 1 and 2); Blomquist (1938, 207, Nos. 36 and 37)) (not illustrated).
107. (347, XIII-3). Piece, 80 mm long, 70 mm wide. Damaged. 3 mm thick. Has a thong 3 mm wide and 1.5 mm thick threaded through, probably for decoration, as the thong is too thin to be pulled (cf. Blomquist (1938, 205, No. 29)) (not illustrated).
108. Side view of construction of imaginary turnshoe, showing the name and position of the various parts.
109. Section through a turnshoe showing mode of construction. Waterer (1940, 176).

SHEATHS (Figs. 29-30):

There were a number of parallels for the knife sheaths, mainly from London, though there are two examples also from York; Richardson (1959); Russell (1940); Tatton-Brown (1974). Particular examples are indicated in the catalogue.

Although of pleasing appearance, upon close examination the decoration on the sheaths is often found to be poorly executed and repetitive in design. The use of armorial bearings alone and in combination with scrolls was popular in the twelfth and thirteenth centuries (Nos. 110 and 119). Interlace was a popular pre-Conquest motif, but continued in use for a considerable period of time afterwards (No. 113).

The use of metal stamps on sheaths is especially characteristic of the fourteenth and fifteenth centuries and they are usually heraldic in subject (Nos. 114 and 119).

As far as can be judged from medieval monuments and brasses, military sword and dagger sheaths were plain, though elaborately decorated with metal, so presumably the sheaths in question belonged to civilians; Russell (1940).

If present, the slits on the sheaths seem to have been fashioned very roughly (e.g. No. 111), as if by the owner himself. The sheath was probably fastened to a belt by means of a thong passed through these slits, though no such thong has been found *in situ* amongst the material examined. It has been observed that English sheaths found in Sweden seem to have been fastened to the belt in the German manner, rather than the English, thus supporting the theory of the owner doing this for himself; Blomquist (1938, 164).

FIG. 29:

110. (47, I-14). Tapering, rectangular section of sheath or scabbard. 224 mm long, 63 mm-56 mm wide, 4 mm thick. Wider end cut. Butted seam stitch holes around other 3 sides. The decoration, engraved with blunt tool, takes the form of heraldic devices and half circles. The damaged centre section gives the impression of having been gnawed (illustrated) (cf. Russell (1940, Pl. XL, No. 2)).
111. (87, I-14). Virtually complete, though in poor con-

dition. 191 mm long, 39 mm tapering to 8 mm wide, as folded, 2 mm thick. Centre back butted seam. Decoration, engraved with blunt tool and incised. Four slits near the top on the seam side, perhaps for attaching to a belt with a thong (illustrated) (cf. Tatton-Brown (1974, 197, No. 233)).

112. (168, IV-56). Fragment 82 mm long, 26 mm, tapering to 6 mm wide, 1 mm thick. Abstract decoration engraved with a blunt tool. Probably part of a sheath (illustrated).

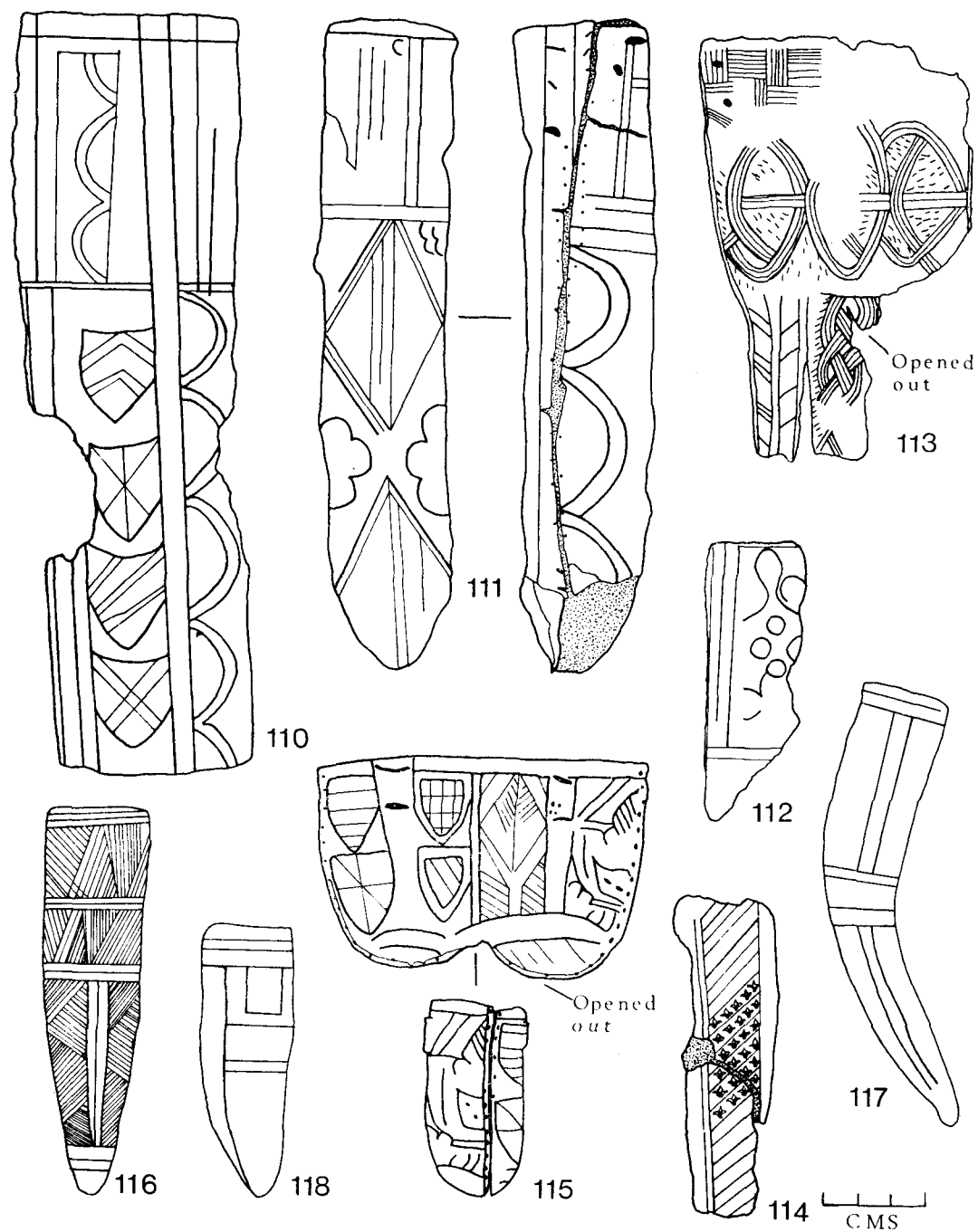


Fig. 29. Custom House Site. Medieval Leather Nos. 110-118 ($\frac{1}{2}$)

113. (263, III-10). Sheath for knife with narrow blade and wide handle. Damaged at top and bottom edges. 123 mm long, 79 mm wide at top, 2 mm thick. Side butted seam. Decoration engraved and incised, and parts of it were too faint to be made out (*cf.* Russell (1940, Pl. XLIV, No. 1) for interlace decoration) (Illustration shows the sheath opened out.)
114. (310, VII-10). Two fragments from the same sheath. 91 mm long, 29 mm tapering to 18 mm wide, 2.5 mm thick. Damaged at top and bottom edges. Centre back butted seam. Stamped decoration of small fleurs-de-lis, which cover the whole surface not just the area indicated in the illustration.
115. (312, IV-60). Complete small holder, perhaps for glass or lead bottle. 65 mm long, 95 mm wide, opened out, 4 mm thick. Butted seam join. Decoration engraved with a blunt tool, and incised, comprising heraldic devices. A pair of small slashes each side of the seam at the top of the piece, perhaps for a thong. Illustrated closed and opened out.
116. (316, I-15). Small complete sheath. 115 mm long, 30 mm tapering to 3 mm wide as folded, 3 mm thick. The decoration is sharply incised on both sides. Centre back butted seam (Illustrated).
117. (315, III-10). Sheath, complete. 135 mm long, 26 mm tapering to 3 mm wide, as folded, 5 mm thick. Decoration engraved with a blunt tool. The curved shape may be due primarily to the conditions of burial. Centre back butted seam (Illustrated).
118. (318, IV-58). Complete sheath, 80 mm long, 25 mm tapering to 2 mm wide as folded, 5 mm thick. Side butted seam. The decoration, engraved with a blunt tool, is very faint (Illustrated).
- FIG. 30:
119. (328, V-16). Large sheath, almost complete though in poor condition. 252 mm long, 45 mm tapering to 25 mm wide as folded, 2 mm thick. Overstitched side seam. Decoration of small stamped heraldic motifs, surrounded by single-punch dots to give granulated effect, and acanthus pattern engraved with a blunt tool (*cf.* Russell (1940, Pl. XLIV, No. 2); Tatton-Brown (1974, 197, No. 234); Russell (1940, Fig. 61, No. 2) for granulated effect) (Illustrated).
120. (330, I-12). Complete sheath. 190 mm long, 44 mm, tapering to 23 mm wide, as folded, 2 mm thick, side butted seam. Decoration of heraldic devices and trilobate arcing is engraved with a blunt tool, and stamped (*cf.* Richardson (1959, 104, Fig. 29, No. 1); Tatton-Brown (1974, 197, No. 233)) (Illustrated).
121. (336, VI-26). Almost complete sheath for narrow-bladed, wide-handled knife. 188 mm long, 52 mm, tapering to 4 mm wide, 2 mm thick. Centre back butted seam. The geometric decoration, engraved with a blunt tool, is very faint on both sides and could not be completely drawn out (*cf.* Tatton-Brown (1974, 200, No. 236)) (Illustrated).
122. (337, V-8). Fragment of sheath 59 mm long, 1 mm thick, with centre back butted seam. Geometric decoration is incised (Illustrated).
123. (III-10). Tiny fragment of sheath, 0.5 mm thick, design of half circles and diamonds engraved with blunt tool (not Illustrated).
124. (I-15). Fragment of sheath, 2 mm thick. Stamped fleur-de-lis design. Very similar to No. 119 (not Illustrated).
- Other objects (Figs. 30-31):
125. (335, I-14). Thong of square section 5 mm wide, 3 mm thick, with figure-of-eight knot tied in it (Illustrated).
126. (257a, III-10). Piece of strap or belt, damaged at both ends. 25 mm wide, 4 mm thick. In common with many other pieces, this example has 3 rows of tiny slashes or stitch holes running along its length. These could be for decoration as they stand; for securing a backing of thinner leather or material, now perished; or possibly they were once threaded with coloured thread or very thin leather (Illustrated).
127. (257b, III-10). Length of strap, 16 mm wide, 1.5 mm thick, damaged at both ends. The illustration demonstrates in section how the piece was made, by rolling a flat piece of leather, the stitching passing through all 3 thicknesses (Illustrated).
128. (302, VII+). Piece of belt, 25 mm wide, 1 mm thick, damaged at both ends. Decorated with cut-out shapes, a little like half-moons. Irregularly spaced stitch holes along the edges, and slashes of uncertain purpose (Illustrated).
129. (51, I-12). Length of flat strap, damaged at both ends. 22 mm wide, 5 mm thick (not Illustrated).
130. (51, I-12). Length of flat strap, damaged at both ends. 12 mm wide, 6 mm thick (not Illustrated).
131. (88, XII-4). Two lengths of flat belt or strap joining together, damaged at both ends. 35 mm wide, 5 mm thick, 225 mm long altogether (not Illustrated).
132. (94, III-7). Length of flat strap, damaged at both ends, made up of two layers. 40 mm wide, 10 mm thick (not Illustrated).
133. (121, I-15). Length of strap, damaged at both ends, folded over, no stitch marks. 4 mm wide as folded, 2 mm thick (not Illustrated).
134. (123, II-12). Length of flat strap, damaged at both ends, 14 mm wide, 4 mm thick. One end of the piece is embedded in a small lump of concrete (not Illustrated).
135. (145, VI-25). Length of flat belt, damaged at both ends. 38 mm wide, 3 mm thick (not Illustrated).
136. (165, IV-56). Four fragments of same flat strap or belt. Damaged. 17 mm wide, 3 mm thick (not Illustrated).
137. (185, VI-15). Length of thong, damaged at one end, 7 mm wide, 2 mm thick. The knot at the other end is made by rolling up the last 10 mm or so, cutting a slit through the thickness of this roll and passing the long end of the thong through it and pulling it tight (not Illustrated).
138. (203, V-8). Fragment of flat strap, damaged at both ends. 12 mm wide, 5 mm thick (not Illustrated).
139. (205, V-8). Length of flat strap, damaged at both ends. 10 mm wide, 4 mm thick. The piece has a knot in the middle of it, possibly repairing a break (not Illustrated).
140. (247, IV-48). Two pieces of flat strap or belt, probably from the same thing, 41 mm wide, 2 mm thick. Damaged at both ends (not Illustrated).
141. (258, III-40). Length of flat belt or strap, 50 mm wide, 4 mm thick. Damaged at both ends (not Illustrated).
142. (260, III-10). Length of ?strap. 190 mm long, 50 mm wide as folded, 2 mm thick. The piece has a centre back seam which was probably overstitched, and butted seam stitchholes along the top and bottom edges (not Illustrated).
143. (277, III-10). Length of flat strap or belt, damaged at both ends, 23 mm wide, 2 mm thick. Has sort of decoration on one side looking like nail marks, irregularly placed over the surface (not Illustrated).
144. (317, I-12). Two fragments of strap or belt, damaged. 25 mm wide, 5 mm thick, having 3 rows of slashes as No. 126 (not Illustrated).

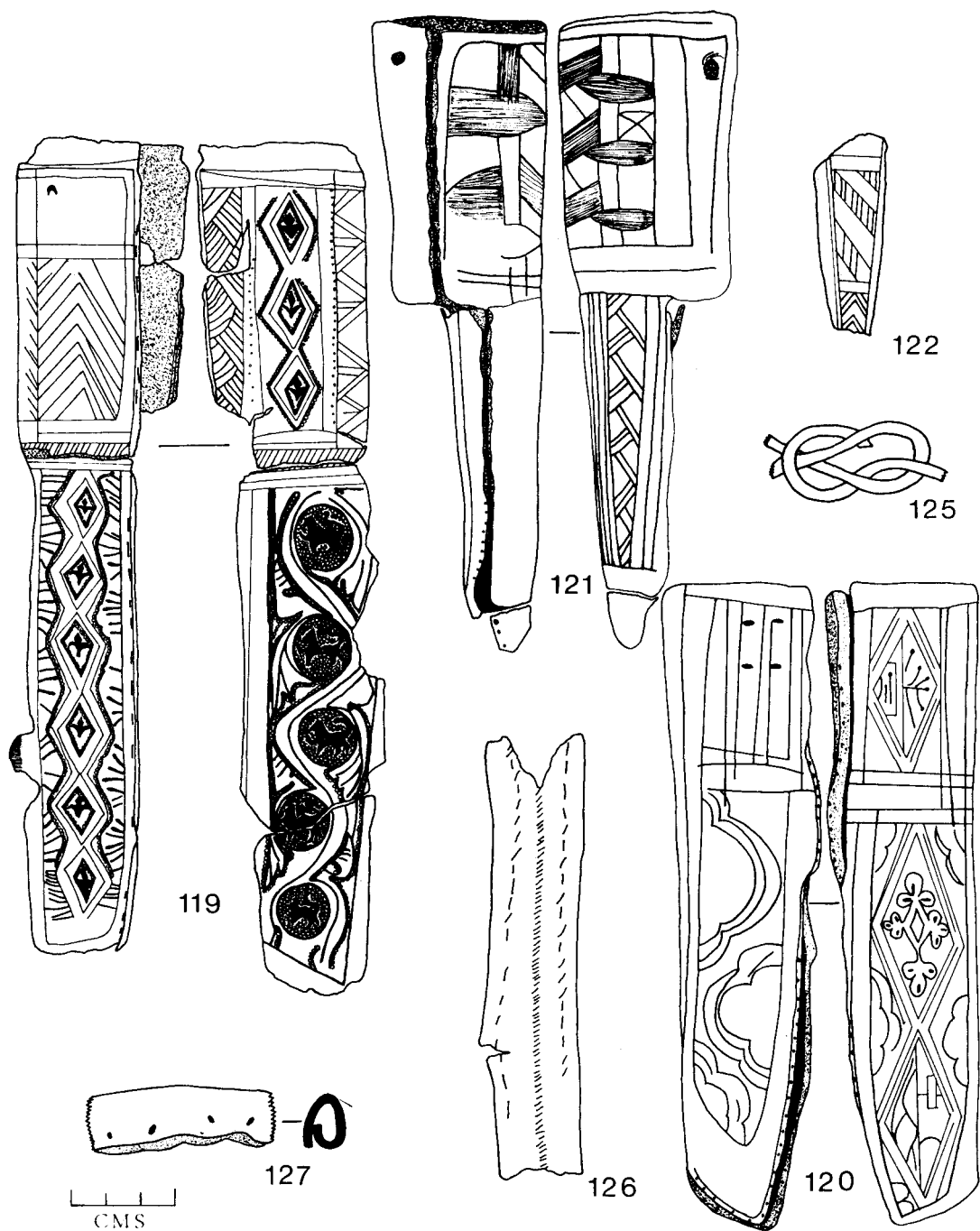


Fig. 30. Custom House Site. Medieval Leather Nos. 119-127 ($\frac{1}{2}$)

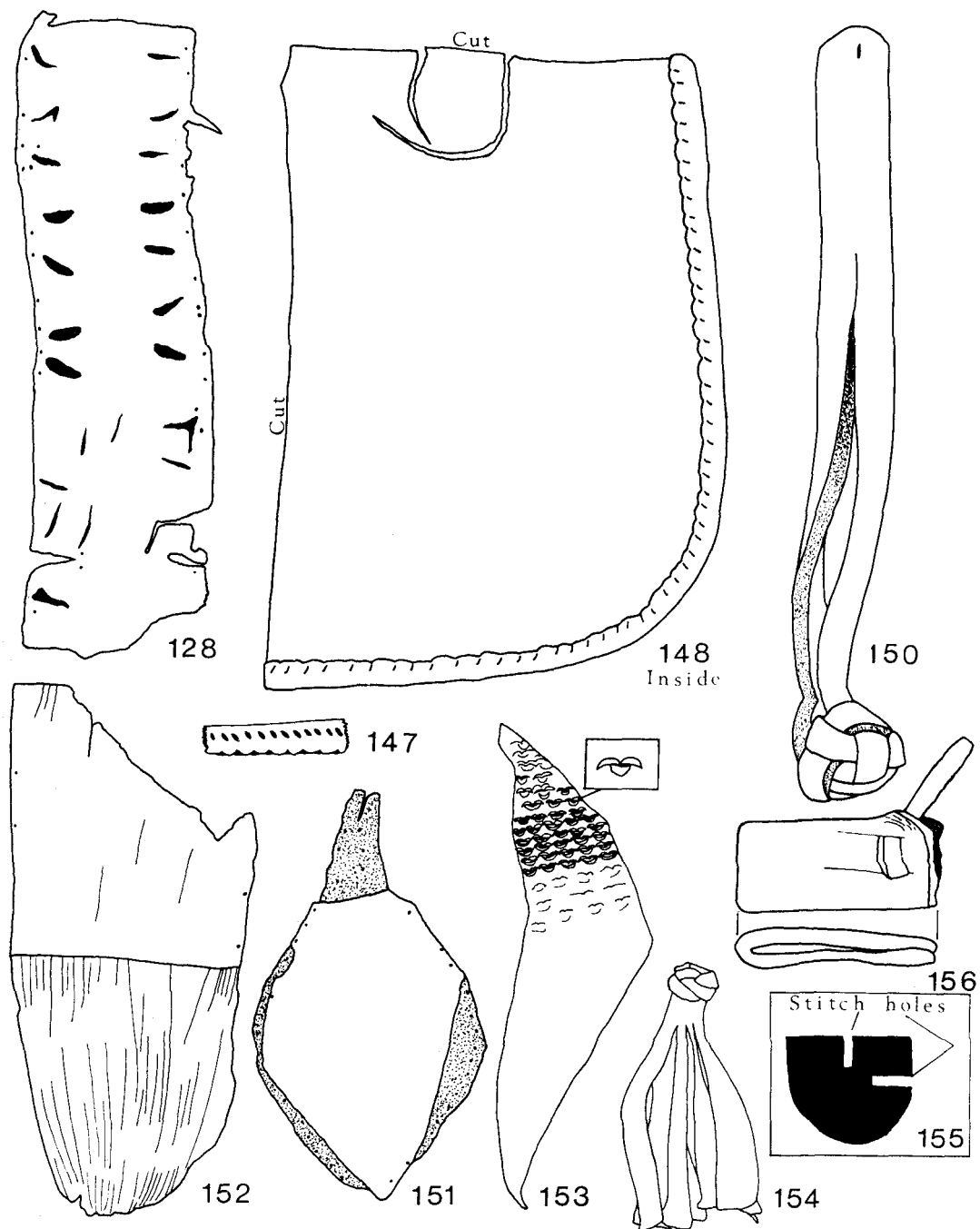


Fig. 31. Custom House Site. Medieval Leather Nos. 128-156 ($\frac{1}{2}$) except 155 (not to scale)

145. (321, I-12). Length of ?strap made up of 3 layers, damaged at both ends. 46 mm wide tapering to 38 mm, 7 mm thick altogether. The bottom layer has holes for tongue of belt, so is probably reused. There is a triangular piece cut out through the 3 layers at one end, stitch holes surrounding this cut. The 3 layers were probably originally secured by stitching (not illustrated).
146. (334, XI-2). Length of flat belt, damaged at both ends. Holes for buckle tongue surviving. 50 mm wide, 2 mm thick. Tiny slashes along both edges (not illustrated).
147. (340, XIV-4). Short length, folded over. 17 mm wide in all, 1 mm thick. Damaged at both ends. Small diagonal slashes penetrate both thicknesses, and the edges are scalloped with stitch holes in them. Very many of the uppers examined had stitch holes along what one would take to be the top edge of the shoe. It has been suggested that unsewn edges were pierced thus decoratively. Sturdy (1959, 75). But possibly some shoes had fancy edgings such as this attached (cf. Blomquist (1938, 203, Fig. 23)) (illustrated).
148. (8, I-12). Part of one side of a purse or bag, the top and inside edges cut off. 185 mm long, 120 mm wide, 2 mm thick. The sewing edge is turned in and the piece was probably overstitched to its other half (cf. Cook, Mynard and Rigold (1969-70, 103, Fig. 20, L.15); Izyomova (Fig. 11, No. 9)) (illustrated).
149. (10, I-12). Possible remains of ?thumb and surrounds of glove. 4 mm thick and very hard and brittle. The "thumb" seems to have been pushed out from the leather, as it is not sewn on. Very damaged, no sign of any seam (not illustrated).
150. (26, II-11). ?Strap 225 mm long overall, 22 mm wide, 5-7 mm thick. 70 mm from top edge the piece is split into two thongs which ultimately intertwine into a ball. Only indication of use is a slit 5 mm long piercing the leather 5 mm from the top edge (illustrated).
151. (50, IV-27). Ovalish piece 121 mm long, 67 mm wide, made up of two layers 1 mm thick, one of which is now damaged. Half a "tag" at the top end, showing remains of ?buttonhole. Originally overstitched all the way round. Looks rather like an eye patch (illustrated).
152. (60, I-12). Possibly remains of insole, though number and position of stitch holes do not suggest this. 156 mm long, 73 mm tapering to 16 mm wide, 1 mm thick, 75 mm from the top edge to bottom are dozens of lines incised with sharp knife, some curving towards middle of bottom edge. Some penetrate right through the leather. Possibly to make insole have more "give", but the number seems excessive (illustrated).
153. (107, I-12). Fragment of stamp-decorated leather, 142 mm long, 1 mm thick, damaged along all edges. Stamp of double crescent shape, with single crescent upside down beneath it. An enlarged version of the stamp is drawn out beside the piece (illustrated).
154. (255, IV-28). Tasse, 80 mm long. Made up of three layers 1 mm thick, a tightly entwined thong securing one end, and the three layers then split into four strips each. No indication of fastening method (illustrated).
155. (108, III-14). Piece of welt found in convincing association with a pointed half sole. A section through the welt (x 2) is shown, with the positions of the two sets of stitch holes indicated. The welt is 9 mm wide across its top edge (illustrated).
156. (320, V-16). Loop of leather, 59 mm long as folded, 27 mm wide, 3 mm thick. Open end fastened by a threaded thong. Possibly the loop placed on a belt into which the loose end of the belt is tucked (illustrated).

DISCUSSION:

The deposit of leather represents waste from a cobbler's shop. This conclusion is based on the fact that the greatest part of the material consisted of severed edges of soles and small pieces of used leather, cut or damaged and then discarded. Many of the soles had pieces cut from them, were worn through in one or more places, or showed evidence of previous repairs.

The evidence of repair work rules out the possibility that the deposit represents shoemaker's waste, as shoemakers were not allowed to undertake repairs, just as cobblers were not permitted to make shoes. Riley (1868, 540 and 570). The singular lack of complete shoes is accounted for when the deposit is viewed as waste material.

The shoes which can be reconstructed seem to be of a simple, everyday sort, devoid of decoration: their importance as such should not, however, be underestimated, for far less is known about this sort of footwear than of the more extreme examples of fashion.

The presence of the knife sheaths is more difficult to account for. Many of the examples appear to be complete and undamaged. They may represent casual loss, though they are perhaps too numerous to support this theory.

The deposit can be broadly dated to the early to mid-fourteenth century. Parallels for the shoes cited in the text support this date, though the parallels for the sheaths seem to cover a wider time span, from the thirteenth to the fifteenth centuries, largely on stylistic grounds. The early to mid-fourteenth century was a period when the pointed toe was taking over from the round toe in shoe fashion. This change is reflected to a certain extent in the material under consideration, though there are an equal number of soles with round toes, and the shapes of the uppers examined do not seem to take account of this change in sole shape.

BIBLIOGRAPHY

- BROOKE (1949), I. Brooke, *A History of English footwear* (London 1949).
- BLOMQUIST (1938), R. Blomquist, "Medeltida Skor i Lund", *Kulturen* (1938) 189.
- COOK, MYNARD and RIGOLD (1969-70), A. M. Cook, D. C. Mynard and S. E. Rigold, "Excavations at Dover

- Castle", *J. Brit. Archaeol. Assoc.* (1969-70) 101.
- DUNNING (1937), G. C. Dunning, "A Fourteenth Century Well at the Bank of England". *Antiq. J.* 17 (1937) 414-18.
- GATHERCOLE (1958), P. W. Gathercole, "Excavations at Oakham Castle, Rutland". *Trans. Leics. Archaeol. and Hist. Soc.* 34 (1958) 31.

- GOODFELLOW and THORNTON (1972), A. V. Goodfellow and J. H. Thornton, "Excavations in Low Petergate, York", *Yorks. Archaeol. J.* (1972) 97.
- HOHLER (1941-46), C. Hohler, "Medieval Paving Tiles in Buckinghamshire", *Records of Bucks* 14 (1941-46) 1-49, 99-132.
- IZYOMOVA (1959), S. A. Izyomova, "Excavations at Novgorod", *СССР* 65 (1959) 192.
- KEEN (1973), L. Keen, "Medieval Floor Tiles of the 'Westminster' tiler at Bengoe, Hertfordshire", *Herts. Archaeol.* 3 (1973) 90-93.
- MARSDEN, P. R. V. Marsden, *A Ship of the Roman Period from Blackfriars, in the City of London*.
- NORRIS (1940), H. Norris, *Costume and Fashion*, vol. II, 1066-1485 (London, 1940).
- PRITCHARD (1954), M. E. Pritchard, *A Short Dictionary of Weaving* (London, 1954).
- RILEY (1868), H. T. Riley, *Memorials of London and London Life in the XII, XIV and XV Centuries* (London, 1868).
- RICHARDSON (1959), K. Richardson, "Excavations in Hungate, York", *Archaeol. J.* (1959), 102.
- RUSSELL (1940), J. Russell, in *London Museum Medieval Catalogue* (London, 1940) 185.
- SALZMANN (1923), L. F. Salzmann, *Industries of the Middle Ages* (Oxford, 1923) 245.
- TATTON-BROWN (1974), T. W. Tatton-Brown, "Excavations at the Custom House Site", *Trans. of London and Middlesex Archaeol. Soc.* 25 (1974) 117-219.
- STURDY (1959), D. Sturdy, "The Clarendon Hotel, Oxford", *Oxoniensia* (1958-59) 75.
- THORNTON (1956-58), J. H. Thornton, in "Excavations at Feasegate, York", *Yorks. Archaeol. J.* (1956-58) 422.
- THORNTON (1958), J. H. Thornton, in "Clare Castle Excavations", *Proc. Suff. Inst. Arch.* (1958-60) 146.
- THORNTON (1970), J. H. Thornton, *Textbook of Footwear Manufacture* (London, 1970).
- WATERER (1957), J. W. Waterer, *History of Technology*, vol. II (Oxford, 1957) 147.

THE EXCAVATED TEXTILES

BY KAY STANILAND

(Note. The fibres have been identified by sight only)

1. Coarse wool/animal hair

(823, XIV-5) 340 mm × 340 mm

Probably the remains of a floor mat; a small section, now separate from the main section, has a 35 mm fringe formed by twisting the threads into a loop. A tough and resistant fabric has been produced by using firmly spun threads which have been tightly twisted together in pairs for both the warp and weft. Tabby woven; 8-9 threads per inch, 5-6 threads per cm.

(776, XIV-3) 110 mm × 30 mm

Fragment of a similar floor mat.

2. Sheep's wool

(582, VI-26) (597, IV-10) (603, III-15) (608, XIV-5) (750, XIII-4) (774, XIV-7) (779, XIII-4)

Lengths of spun thread (between 45 mm and 375 mm), mostly thick (8.12 mm) and lightly spun; some finer and more tightly spun threads in (750), (774).

(584, III-10) (587, III-14) (686, XII-3) (781, XIV-7) (812, XV-18)

Irregularly-shaped scraps of woven cloth; sizes vary from 280 mm × 145 mm-120 mm × 40 mm. With one exception—(812) which is a plain tabby weave—all are woven with floating warp threads forming a diagonal twill, they are rather coarse examples (many have very uneven weft threads), and have been fairly heavily fulled. One piece (in 686) appears to have evidence of the use of different coloured threads to form open checks.

3. Silk

(584, III-10) 120 mm × 20 mm (585, I-12) 330 mm × 330 mm

Fine tabby weave silks (approx. 30 threads per cm), lightly spun (585) has a 2 mm selvedge of closely packed threads which shows evidence of sewing; it is possibly the remains of an old lining. (584) is a partially bias-cut narrow strip, one side of which is still overcast in a 2-ply silk thread; this could possibly be a clothing frill.

(536, III-16) 190 mm × 210 mm

An irregularly-shaped piece of fine gauze of indeterminate use; it retains a section of selvedge like that of (585). The loosely woven threads—weft 70 per inch, 24 per cm; warp 100 per inch, 34 per cm—are tightly spun, giving a crisper and less soft effect.

4. Cords etc.

(598, III-10) (602, I-12)

Fine circular plaited cords, some with tassels attached; composed of 2-ply silk threads.

(585, I-12) (592, I-12)

Flat plaited silk laces; (592) forks into two ?tiles.

(109, I-12) (594, III-10)

Straps of tablet-woven 2-ply silk thread.

(594 8-9 mm wide, 220 mm long.

(109) in three sections each 8 mm wide, 79 mm, 132 mm, 118 mm long; one of these sections has three rectangular metal studs (8 mm × 5 mm) attached at 15 mm distance and could be the remains of a belt.

The items in this assemblage form no cohesive or explicable group and add little to present knowledge of fourteenth century textiles and techniques.

THE ANIMAL BONES

BY ALISON FLECK-ABBAY AND ANTHONY KING

The bone material studied consists solely of the layers of Group C2 (early to mid-fourteenth centuries). Thirty-seven layers from all parts of the site were used, all being the peaty build-up subsequent to the construction of the second medieval waterfront, Tatton-Brown (1974, 121). This peat had preserved the bones well and most were merely discoloured. It may be assumed from this that the material is in substantially the same state as it was when deposited and the erosion factor can be regarded as minimal.

Table 1 gives the minimum numbers; Table 2 the minimum numbers of each bone for the main food animals; and Table 3 a comparison for these animals between the two tables, along with carcass and meat weights. The differences in the minimum number totals are accounted for by the different methods used in adding together the bones from each layer, those from Table 2 being totalled for each bone for each layer and then pooled together and those from Table 1 being calculated for each layer and then totalled. In this case, the differences are not significant (but see Grayson (1973)).

Table 1. Minimum numbers of animals

Cow	<i>Bos taurus</i>	93
Sheep	<i>Ovis aries</i>	94
Pig	<i>Sus scrofa</i>	69
Horse	<i>Equus caballus</i>	3
Fallow deer	<i>Dama dama</i>	12
Roe deer	<i>Capreolus capreolus</i>	3
Cat	<i>Felis catus</i>	1
Dog	<i>Canis familiaris</i>	5
Hare	<i>Lepus europaeus</i>	3
Mustelid	<i>Mustelidae</i> sp.	1

Table 2. Minimum numbers of bones for *Bos*, *Ovis* and *Sus*

	<i>Bos</i>	<i>Ovis</i>	<i>Sus</i>
Head			
Cranium	50	26	8
Maxilla	12	15	17
Mandible	55	69	51
Scapula	53	43	14
Forelimb			
Humerus	22	27	23
Radius	28	49	17
Ulna	24	15	29
Metacarpal	25	45	3
Pelvis	44	44	11
Femur	27	19	9
Tibia	32	48	32
Hind limb			
Calcaneum	20	7	5
Astragalus	15	4	1
Metatarsal	34	37	20

Table 3. Minimum numbers and meat weights for *Bos*, *Ovis* and *Sus*

	<i>Bos</i>	<i>Ovis</i>	<i>Sus</i>	
(a)	93(36%)	94(37%)	69(27%)	from Table 1
(b)	55(31%)	69(39%)	51(29%)	from Table 2, mandibles
(c)	400	60	100	animal weights, kg (Yealland & Higgs (1966, 140))
(d)	200	30	70	meat weights, kg (after White (1953))
(e)	37,200(75%)	5,640(11%)	6,900(14%)	(a) × (c) (kg)
(f)	18,600(71%)	2,820(11%)	4,830(18%)	(a) × (d) (kg)

It can be seen that sheep or, rather, mutton and lamb, was numerically most important, although beef was by far the most popular food if weight is considered, with pork second and mutton last. Chicken was also common, occurring in 31 out of the 37 layers, as were fish of various sizes, occurring in 14 layers. Fallow and roe deer are mainly represented by limb bones and must be regarded as part of the food supply. The absence of red deer (*Cervus elaphus*) is noteworthy, considering the numbers of the other deer and may be a sign of its scarcity in the London region at this period. Scattered limbs of the other animals occurred, none articulated, which is not surprising in view of the nature of the deposit. It is unlikely that a dead horse would have been thrown behind the waterfront and bones may indicate food remains. Hare, also, would have been part of the diet. There is a single rabbit (*Oryctolagus cuniculus*) bone.

Table 2 shows, in effect, the relative proportions of different joints of meat and waste. For the cow, the large proportion of remains of the axial skeleton is noteworthy (head, scapula and pelvis) and the various parts of the limbs are present in about equal numbers. For sheep and pig the head is most common. For sheep the scapula and pelvis is common compared with the rest of the upper limb but this was not the case with pig. In both these animals the lower limb is more numerous than the upper, especially considering that the radius and tibia were more often represented by their distal rather than proximal ends. The smaller bones of sheep and pig such as calcanea, astragali and (for pig only) metacarpals are low in number and this may be due to the tidal situation washing them away while the other heavier bones have stayed in the deposit.

Most of the bones of the three main food animals had been chopped up for stewing, indicating the much more complete use of animal carcasses in medieval (and earlier) times compared with today. Besides the use of the bone for cooking, some of the lower long bones of *Bos*, *Dama* and *Ovis*, and a goose (*Anser* sp.) bone had been utilized in man-made objects; Henig (1974, 198-99). There was little antler but the number of *Bos* horncores perhaps suggests a horner's manufactory (see Ryder (1970, 418, 423-25, 427) for a similar case at York).

The numbers and relative proportions of some other medieval sites are given in Table 4.

Table 4. Minimum numbers of animals from some late medieval sites

	date	<i>Bos</i>	<i>Ovis</i>	<i>Sus</i>	<i>Equus</i>	source
Custom House	C14	93(36%)	94(36%)	69(27%)	3(1%)	Table 1
Southwark	C14-C15	10(40%)	9(36%)	6(24%)	—	Rixson (1973)
Petergate, York	C11-C14	10(31%)	12(38%)	7(22%)	3(9%)	Ryder (1970)
Seacourt, Berks.	C13	13(48%)	10(37%)	3(11%)	1(4%)	Jope (1962)
"	C14	18(33%)	27(50%)	7(13%)	2(4%)	"
Upton, Gloucs.	C12-C13	4(11%)	26(72%)	3(8%)	3(8%)	Yealland and Higgs (1966)
"	C13-C14	5(26%)	11(58%)	1(5%)	2(11%)	Noddle (1969)

The urban sites, London, Southwark and York, are very similar in animal composition and so, presumably, was the diet. This also suggests that the unusual circumstances of deposition at the Custom House site have not affected the proportions of the animals. The two deserted village sites are less regular in their proportions but, in general, less reliance is placed on the pig.

To conclude, the deposit, although unusual in situation, contains a normal assemblage of bones for a late medieval urban situation. All parts of the main food animals were found, suggesting that the animals were purchased at livestock markets in London (East and West Smithfield?) and the waste bones (*i.e.* feet and head) used as much as possible and then thrown away with the rest of the food debris. For sheep, in particular, waste bones were in the majority. A substantial proportion of the bones were from young animals, indicating variation in the diet, as does the presence of deer, hare, chicken and fish bones. The relative weights of the animals indicate an overwhelming preference for beef, especially when compared with modern consumption, but similar to Roman preferences, King (1975). The weights themselves should be used with caution since they are for modern animals (fourth century cattle from Caernarvon only weighed 145, 190 and 209 kg respectively; Noddle (1974, 76)). Estimation of stature and measurements have not been made but should be done in the near future and the results lodged, together with detailed bone analysis, in the Museum of London.

(The bones were identified by A. F.-A. and the discussion is by A. K.)

BIBLIOGRAPHY

- GRAYSON (1973), D. K. Grayson, "On the Methodology of Faunal Analysis", *Amer. Antiq.* 38 (1973) 432-39.
 HENIG (1974), M. E. Henig, "The Small Finds" in Tatton-Brown (1974) *op. cit.*, 186-201.
 JOPE (1962), M. Jope, "The Animal Remains in M. Biddle; The deserted medieval village of Seacourt, Berks", *Oxoniensia* 26-27 (1962) 197-201.
 KING (1975), A. C. King, "Animal Bones in Romano-British Archaeology, with particular reference to Cirencester and its region, unpublished B.A. dissertation", *Institute of Archaeology, London*.
 NODDLE (1969), B. Noddle, "The Animal Bones in P. A. Rahtz; Upton, Gloucestershire, 1964-68", *Trans. Bristol and Gloucestershire Archaeol. Soc.* 88 (1969) 124-26.
 NODDLE (1974), B. Noddle, "The Animal Bones in P. J. Casey; Excavations at Segontium 1971", *Archaeol. Cambrensis* 123 (1974) 75-77.

- RIXSON (1974), D. Rixson, "Animal Bones in H. Sheldon; Excavations at Topping's and Sun Wharves, Southwark, 1970-72", *Trans. London and Middlesex Archaeol. Soc.* 25 (1974) 108-11.
 RYDER (1970), M. L. Ryder, "The Animal Remains from Petergate, York, 1957-58", *Yorkshire Archaeol. J.* 42 (1970) 418-28.
 TATTON-BROWN (1974), T. Tatton-Brown, "Excavations at the Custom House Site, City of London, 1973", *Trans. London and Middlesex Archaeol. Soc.* 25 (1974) 117-219.
 WHITE (1953), T. E. White, "A method of calculating the dietary percentage of various food animals utilized by aboriginal peoples", *Amer. Antiq.* 18 (1953) 396-98.
 YEALLAND and HIGGS (1966), S. Yealland and E. S. Higgs, "The Economy in R. M. Hilton and P. A. Rahtz; Upton, Gloucestershire, 1959-64", *Trans. Bristol and Gloucestershire Archaeol. Soc.* 85 (1966) 139-43.

MEDIEVAL DENDROCHRONOLOGY

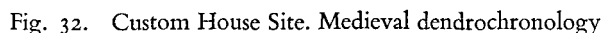
BY DR. JOHN FLETCHER

In the previous report,¹ it was mentioned that both the posts and the vertical planking of the medieval samples from Trenches IV, XII and XIV were derived from fast-grown oaks. The posts were shaped from the trunks, of 1-1½ ft dia., the pith being approximately in the centre of the pieces cut for samples. The wide horizontal planking in Trench IV was cut from butt logs (derived from one or more trees) of 2-2½ ft dia., the cuts being made across the whole tree and near to the centre so as to achieve the height of about 22 in.

In the only sample, that cut from the post XII-1, of slow growth, there were 164 rings of average width 1 mm. These were tentatively dated by comparison with a mean curve (for narrow rings) derived from panels for paintings, to the years 1154-1318 A.D. An important constituent in this mean curve were the ring-widths for two trees used in the boards of the *Scenes from the Life of St. Etheldreda*. The rings for them spanned the years 1147-1419.²

REFERENCES

- ² John Fletcher, "Dating Panel Paintings of St. Etheldreda from Ely", *Country Life*, (28 March 1974) 728-30.



and Julian Munby (who did the reconstruction). Dr. John Fletcher (Dendrochronology), Tony Dyson (Documentary History) and Cecil Hewett (Carpentry), Dr. Martin Henig (Small Finds) and Miss K. Staniland (Textiles), also kindly produced specialist reports; while Vanessa Mead helped with some of the finds, drawings and mountings. The report was typed by Diana Twells and Sioned Alban-Jones. Finally, as last year, I must thank Hugh Chapman for constant help and advice.

The Society and Editors are very grateful to the Museum of London and the Department of the Environment for financial assistance towards the cost of publishing this report.

DEPARTMENT OF URBAN ARCHAEOLOGY, MUSEUM OF LONDON
CHIEF URBAN ARCHAEOLOGIST: BRIAN HOBLEY

EXCAVATIONS ON THE SITE OF ST. MILDRED'S CHURCH, BREAD STREET, LONDON, 1973-74

PETER MARSDEN, TONY DYSON and MICHAEL RHODES

CONTENTS

	<i>Page</i>
I SITE, GEOLOGY AND SUMMARY by PETER MARSDEN	171
II THE EXCAVATION	
Period 1 Gullies of pre-Flavian Date	173
Period 2A { Levelling by Dumped Brickearth	173
Period 2B {	175
Period 3 A Stone Building of possible Flavian Date	175
Period 4 Destruction	179
Discussion	179
Period 5 The Sunken-floored Saxon Hut	181
The Pits	183
The Significance of the Hut-pit	185
Period 6 The Medieval Church	187
III ST. MILDRED, BREAD STREET: DOCUMENTARY SURVEY by TONY DYSON	191
IV FINDS REPORT by MICHAEL RHODES	193

THE SITE:

The site of St. Mildred's Church is situated on the east side of Bread Street about mid-way between Cannon Street and Queen Victoria Street in the western half of the Roman and Saxon city of London (Fig. 1A). It was the first excavation to be completed by the Department of Urban Archaeology, and was undertaken during a period of six weeks in December 1973 and January 1974. The excavation was under the general supervision of Mark Guterres, parts of the site recording being carried out by Andrew Caldwell and Peter Murphy. The published illustrations were drawn by Vanessa Mead and Howard Pell.

GEOLOGY AND SUMMARY

The natural subsoil of this site comprised a mixture of brickearth and sand and gravel at a height of 9.50 m–10 m above O.D. The site, however, lay at the southern edge of the Taplow Terrace of the Thames, just south of which originally existed the steep slope down to the edge of the Thames and the flood-plain terrace.

The first major use of the site seems to have been the extensive dumping of brickearth (Periods 1 and 2) in preparation for the construction of a stone building during the first century A.D. (Period 3). Following the demolition of the building there seems to have been some extensive clearance of rubble from the site, which was in turn followed by the dumping of more brickearth (Period 4).

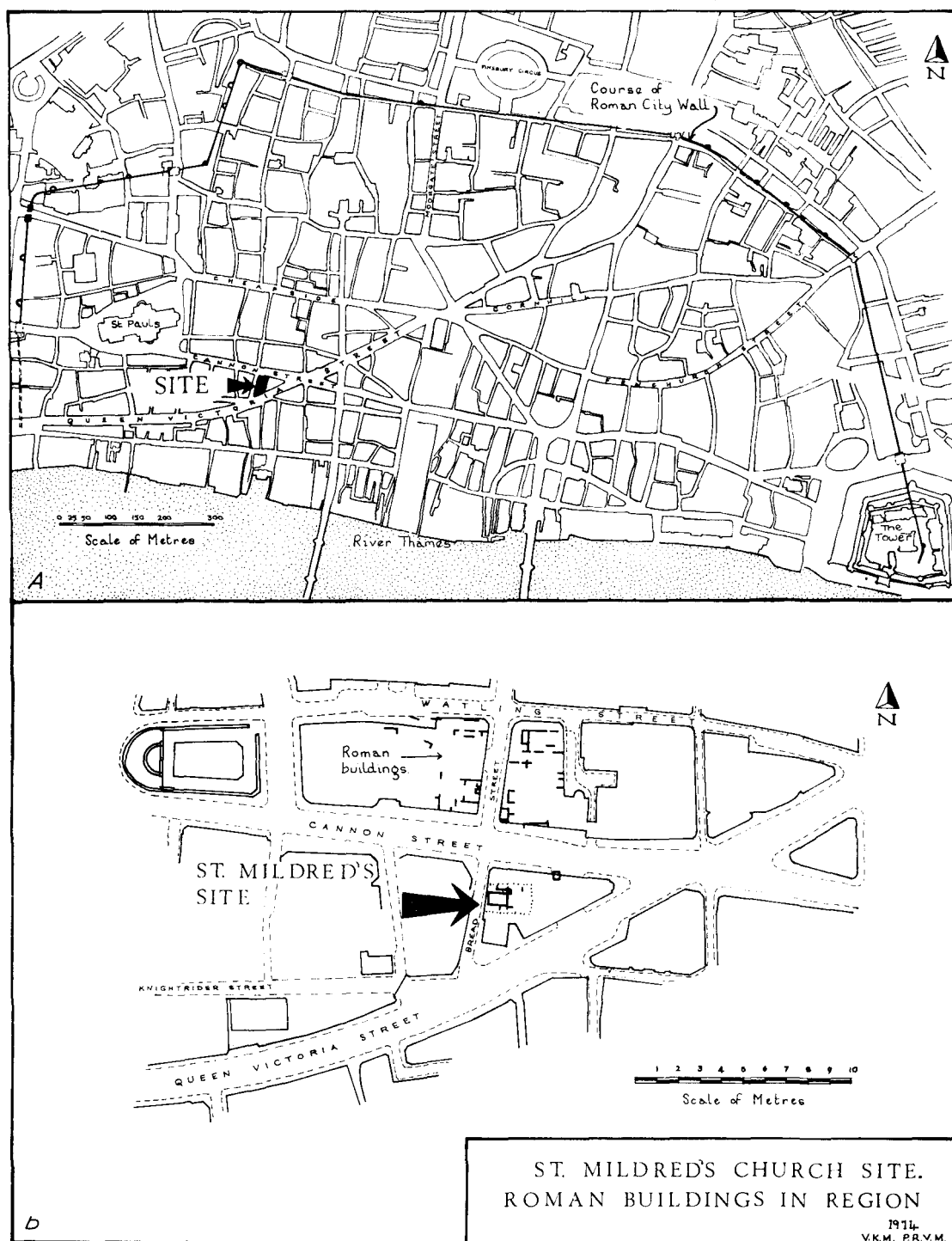


Fig. 1. St. Mildred's Church. Location of site.

During the Saxon period a sunken hut was constructed and occupied (Period 5), this evidently being part of a development which has also been located on a nearby site. Probably associated with the hut were a series of rubbish pits.

The dedication suggests that the church of St. Mildred (Period 6) may have had a Saxon origin, but this was not supported by the limited archaeological evidence which favours the twelfth century. Probable traces of the earliest church were found, together with evidence of at least two later periods of church construction, which includes a tower, dating prior to the destruction of the church in the Great Fire of 1666. Subsequently the church was rebuilt by Wren.

PERIOD 1 (Fig. 2):

The earliest traces of human occupation on this site were very fragmentary and comprised three shallow depressions or gullies and one shallow pit, all cut into the underlying natural subsoil. It would be tempting to suggest that the gullies were slots to contain the sleeper beams of a timber framed building, but as, in fact, two of the "gullies" ("a" and "b") were seen only in section (Section A-B, Fig. 3) it is clearly not certain that they were gullies. Also, as other sections did not show evidence of gullies, and there was no "occupation debris" associated with them, it is difficult to conclude that there was an early timber building on the site.

GULLIES "a" AND "b":

Two shallow angular depressions which were seen in section only (Section A-B, Fig. 3), and had been dug into the natural subsoil. Each was about 100 mm deep and 300 mm across. It is possible, however, that this section may have been cut at an oblique angle to the alignment of the gullies and that their true width could have been less than 300 mm.

GULLY "c":

This was a shallow gully or slot in the natural subsoil about 100 mm deep and 200 mm wide (Fig. 2). It was traced for a distance of 1.40 m, but its eastern end was very shallow, being only 20 mm deep. Its western end was not located at a point 2 m west of the excavation in which the gully was revealed.

PIT 1:

This was a small pit which had been cut by Gully "c" (Fig. 2). It was no more than 300 mm deep and was U-shaped in cross-section.

DATING EVIDENCE:

No dating evidence was found in the pit or gullies though as these were the earliest features on the site it is clear that they should be of pre-Flavian date. Three sherds of indeterminate date were recovered from the small Pit 1 (p. 194, Nos. 1-3, not illustrated).

PERIOD 2A:

An even deposit of brickearth, the "Lower Clay Dump" (shown in Fig. 3, Sections A-B, C-D; Fig. 4, Sections E-G, H-I, J-K, L-M), generally about 300 mm thick was laid over the natural subsoil and the features of period 1, and was found to extend over the whole area of the excavation where the archaeological deposits remained undisturbed. It seems likely that this may have been in preparation for building development on the site—perhaps the period 3 building. A few traces of disturbance to the dump were located, Pit 3, in Section C-D, for example, but these all pre-dated the construction of the period 3 building, and none of the disturbances were sufficiently extensive to suggest that there was any significant occupation of the site prior to the construction of the period 3 building.

The "Lower Clay Dump" described above contained very little pottery or building material (Fig. 10, No. 15), though some pieces of Kentish ragstone were observed in Section L-M (Fig. 4). The ragstone appeared to be a rough jumble of unfaced pieces which had been included in the brickearth brought from elsewhere in the City.

PIT 2:

A small pit-like cut into the "Lower Clay Dump", Section H-I (Figs. 2 and 4) was filled with clean brickearth.

GULLY "d":

This was a small depression in the top of the "Lower Clay Dump" and was seen only in Section H-I (Figs. 2 and 4). There is no evidence that it may have once contained a timber sill beam of a building, and indeed the apparent absence of similar features in the other sections indicates that no phase of Roman timber building existed on top of the dump of brickearth.

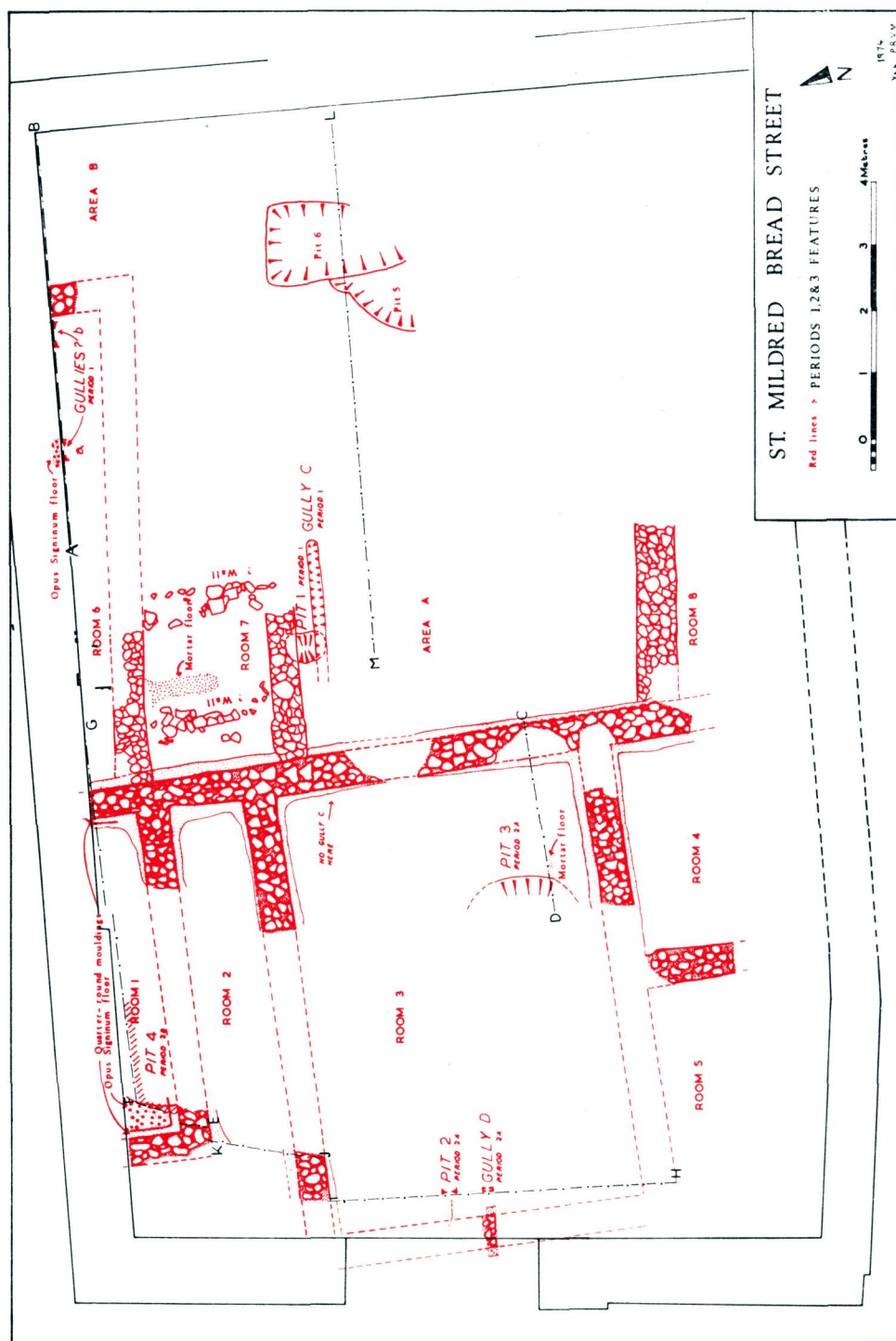


Fig. 2. St. Mildred's Church. Roman features, Periods 1, 2, 3 (in red) and location of sections.

PIT 3:

This was a pit cut into the "Lower Clay Dump" and had a straight side and a flat bottom (Section C-D, Figs. 2 and 3). It was filled with a later dump of brickearth, the "Upper Clay Dump". The pit had been cut by the later Pit 16.

DATING EVIDENCE AND SIGNIFICANCE:

No dating evidence was recovered, possibly indicating that the site did not remain open long before the next major phase of dumping occurred (Period 2B). Indeed, it is reasonable to suggest that the break in dumping between Periods 2A and 2B was merely a reflection of the method of dumping in layers, and that the Gully "d" could have been caused by something as simple as the wheels of heavily laden vehicles bringing clay to the site for dumping.

PERIOD 2B:

A new dump of brickearth, the "Upper Clay Dump" (shown in Sections A-B, C-D, H-I, J-K, Figs. 3 and 4), more orange in colour than the "Lower Clay Dump" over which it was deposited, ranged in depth from 200 mm-600 mm. It filled and overlay all the features associated with Period 2A, but only seems to have occupied the area subsequently covered by the Period 3 stone building.

PIT 4:

The limits of these layers (Section E-G, Layers 11-16, Fig. 4), which are interpreted as the contents of a pit dug into the "Upper Clay Dump", had been destroyed by the construction of the south wall of room 1 of the subsequent Period 3 Roman building, and by the post-Roman Pit 7. The Pit 4 deposits are shown in Section E-G (Figs. 2 and 4), and largely comprised clay containing ash and building materials.

DATING EVIDENCE:

Sherds of the latter half of the first century A.D. were recovered from the "Upper Clay Dump", though as the brickearth deposit in which they occurred had been brought from elsewhere the pottery gives merely a *terminus post quem* date for the dumping of the deposit (Fig. 10, Nos. 4-6).

PERIOD 3 (Fig. 2):

A Roman building with stone walls and foundations was eventually built on the "Upper Clay Dump", and it is perhaps significant that the extent of this deposit in the western half of the site largely coincided with the extent of the first phase of the stone building, whereas the underlying "Lower Clay Dump" appeared to extend over the whole site.

The construction of the Roman walls seems to have been carried out as follows: firstly, a foundation trench was dug into the dumped clay subsoil (Section E-F, Fig. 4), and in this was constructed the lower part of the wall foundation of ragstone and cement. The top level of each foundation was constant wherever it survived. Upon this foundation was built the wall, about 500 mm thick, of ragstone and buff mortar, faced with fairly neatly laid stone blocks. The greatest surviving height of the walls of the building were the north and south walls of Room 2, which stood about 450 mm high, and at that level had a course of red bonding tiles. This was 3.50 m below the present level of Bread Street, and should be considered with the evidence (pp. 192-193) of "ancient" charred wood and thick rubble walls encountered during the course of non-archaeological excavations below the floor of St. Mildred's in 1897-98. These operations were said to have penetrated to 16 ft (4.88m), but the precise depth at which individual structures were found was not recorded. An elevation of the west front of Wren's church¹ shows that the church floor was between 2-3 ft (610-914 mm) above street level.

Only part of the Roman building was found on this site, it clearly having extended both to the north of and to the south of the excavated area. It seems certain, however, that the eastern limit of the building in its primary phase was found, this being the east wall of Rooms 1, 2, 3 and 4. During a secondary phase, rooms 6, 7 and 8 were added to the existing building.

ROOM 1:

Only the south end of this chamber was located, the remainder of the room lying beyond the northern limit of the excavation. The room was about 5 m wide (east-west), and contained traces of three phases of flooring. The earliest floor (Section E-F, Layer 8, Fig. 4) was constructed of pink cement containing many small fragments of brick to form a kind of *opus signinum*, and at the southern edge of the floor was a quarter-round moulding of pink mortar. This floor overlay a dump of brickearth (Layer 10) which had evidently been deposited to fill up the foundation trench of the south wall of this room and to level the room area. The earliest floor was overlaid by a rubbly layer containing much broken mortar and by a dump of brickearth (Layer 7) which may have been dumped to form a base for the second floor (Layer 4). The second floor was of white mortar and had a quarter-round moulding at the southern edge of the room. This was overlaid by an additional dump of orange-

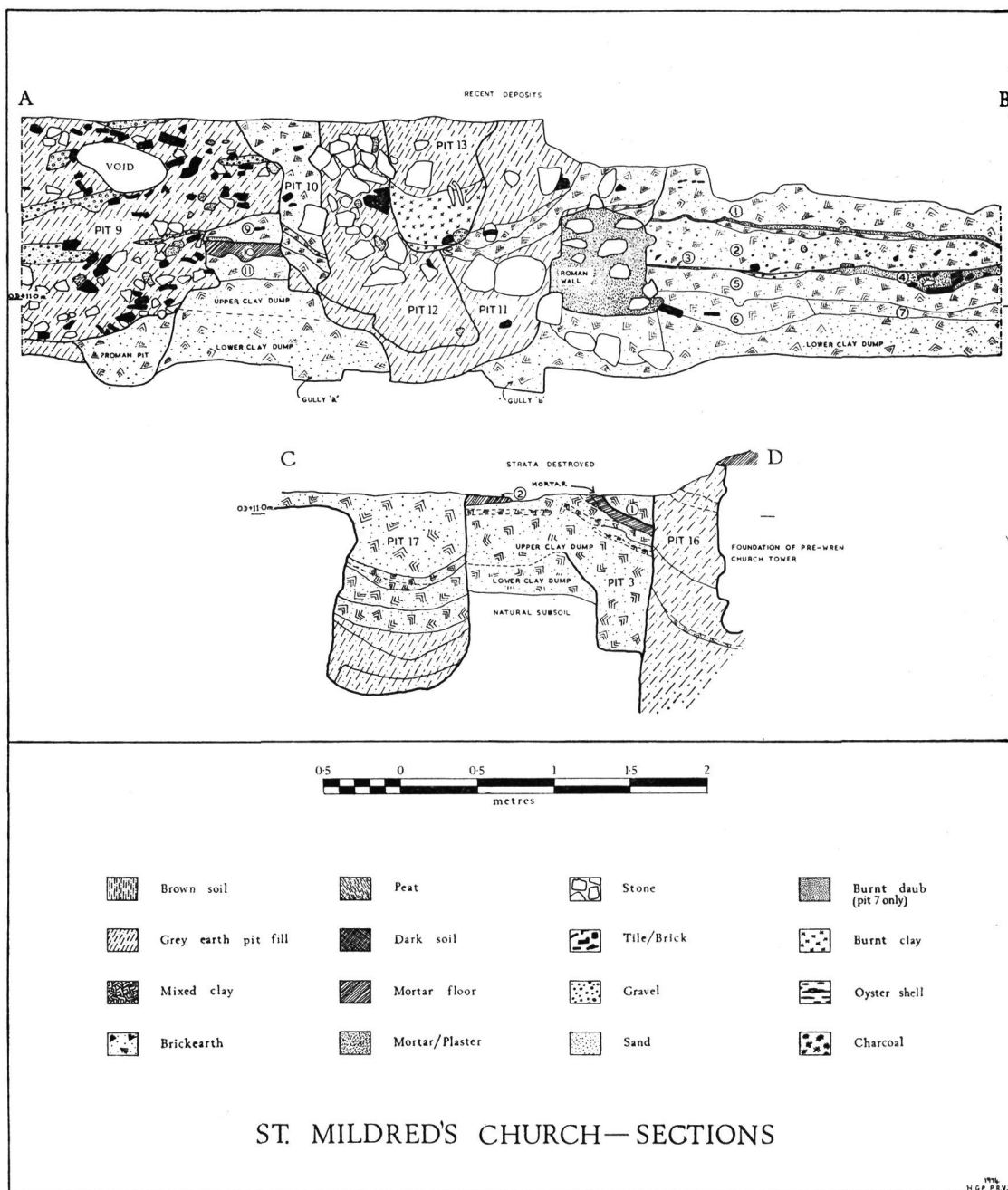


Fig. 3. St. Mildred's Church. Sections A-B, C-D.

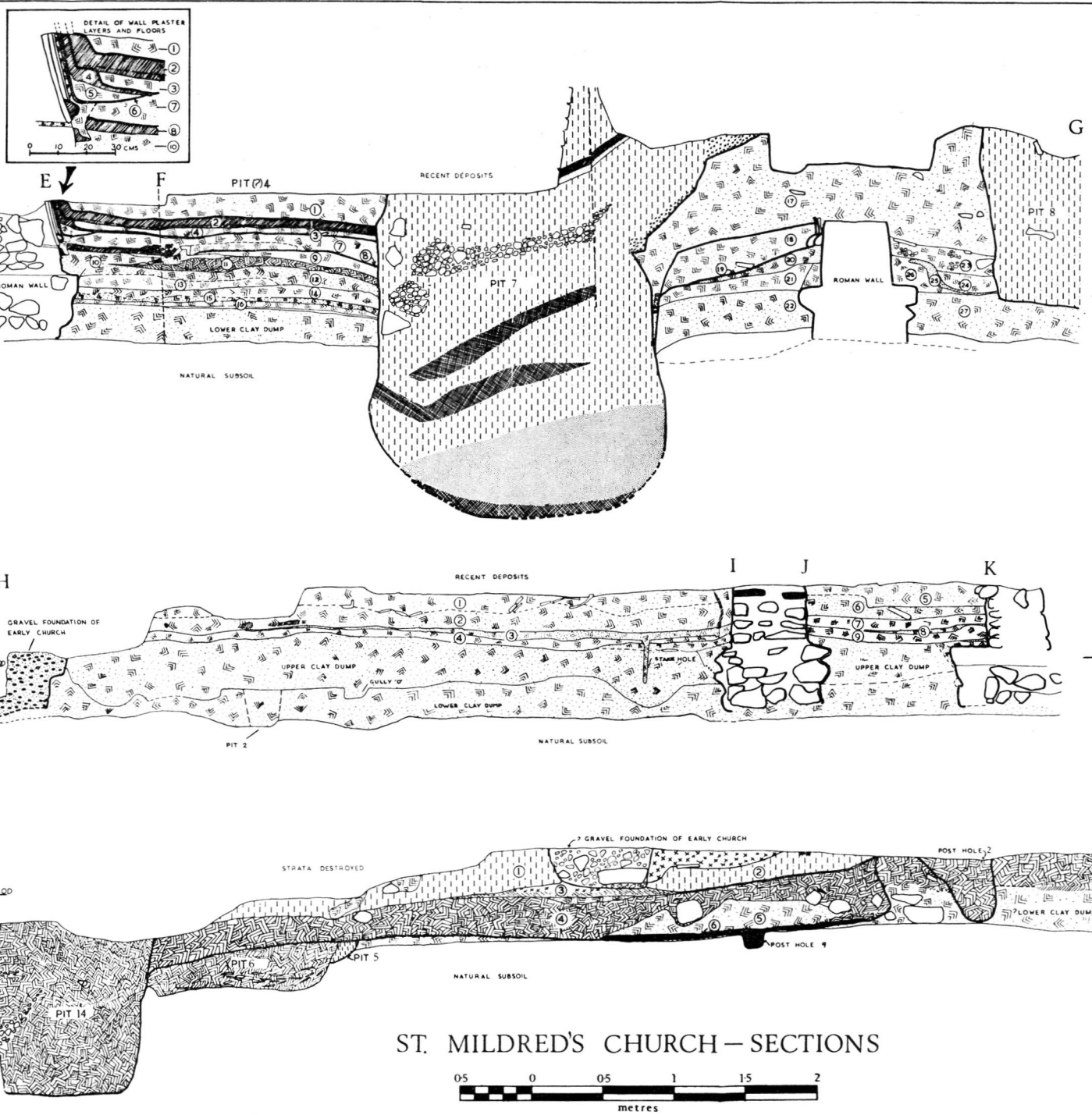


Fig. 4. St. Mildred's Church. Sections E-F-G, H-I-J-K, L-M

brown brickearth which contained many fragments of wall plaster (Layer 3), and was finally overlaid by the third floor (Layer 2), which was of *opus signinum* and also had a quarter-round moulding at the southern edge of the room.

Associated with each floor was a new surface of painted wall plaster, superimposed over those that had already been laid, the earliest floor having two plaster surfaces associated with it. This was superseded by yet another (Section E-F, Layer 6, Fig. 4) which overlay the quarter-round moulding of the first floor, perhaps to form an additional mortar floor (Fig. 4 insert). It is difficult to link up the western part of the section across this room with that to the east because a large medieval pit (Pit 7, Fig. 5) had been dug into the room and had removed certain key deposits. In addition, the floors of this chamber, especially the first and second floors (Section E-F, Layers 8 and 4, Fig. 4 insert) seem to have been either mostly worn away or otherwise removed, making it difficult to trace their position in the stratigraphical sequence across the room. The two quarter-round mouldings against the east wall of the room, however, would seem to have been parts of the first and second floors, and the overlying dump of brickearth (Layer 18, Fig. 4) seems to have been a continuation of Layer 3 which underlay the third floor (Layer 2).

ROOM 2:

This seems to have been a corridor about 1.20 m wide, and 7 m long—if one assumes that there was no cross wall in the central part of the chamber where later church burials had destroyed the Roman structures.

Section J-K (Fig. 4) across this room shows no definite trace of any mortar floors although, even if the floors had been worn away, it might be expected that some trace would have survived adjacent to the walls of the room. Instead the section shows a succession of deposits of clay, mostly brickearth, which may be interpreted in two alternative ways. They may represent a succession of clay floors, or they may have been dumps to raise the ground level above the surviving tops of the walls prior to the construction of a mortar floor.

The lowest deposit in Section J-K which completely overlay the "Upper Clay Dump" was Layer 9, a layer of brickearth which had a thin, grey, clayey upper surface which included flecks of charcoal—perhaps a trampled layer. This was overlaid by another dump of brickearth, Layer 7, above which was a thick layer of grey, sandy clay, Layer 6. The nature, form and thickness of this grey deposit is more consistent with a dumped deposit than with an "occupation layer". This was overlaid by an additional dump of brickearth (Layer 5), the top of which had been truncated by post-Roman disturbances.

ROOM 3:

This was a large chamber (assuming that no cross-wall existed across its destroyed central area) internally measuring about 6 m by 4.75 m.

Two sections (Sections C-D, Fig. 3 and H-I, Fig. 4) were investigated across this room, and as in Room 2 there was no clear evidence of any good mortar floor, except in Section C-D, Layer 2, and it seems likely that the deposits, which mostly comprised layers of dumped brickearth and other debris, were either dumped to raise the floor level soon after the walls of the building had been completed, or represent a succession of clay floors.

In Section H-I the "Upper Clay Dump" was overlaid by a deposit of brickearth (Layer 4) which seems to have formed a floor or working surface. This deposit also overlay the brickearth layer which had been used to fill in the foundation trench of the north wall of this room. Clay Layer 4 was overlaid by Deposit 3, a layer of dark brown and black sandy clay containing much charcoal which may be interpreted as a working surface or as an occupation level. A small post hole or stake hole was recorded in Section H-I descending from Layer 3, perhaps indicating construction activity within the room during this phase. Two dumps of brickearth and other debris, Layers 1 and 2, overlay Layer 3, and the upper of these two deposits seems to have slightly overlain the top of the north wall of Room 3, indicating that it had been dumped after the stone building had been demolished.

The deposits in Section C-D (Fig. 3), however, were more disturbed by later features, though even here some significant information had survived. Overlaying the "Upper Clay Dump" and pre-dating the construction of the stone building, were several thin deposits of brickearth, all of which sloped steeply down to the west—this slope presumably indicating some form of tip or subsidence into an earlier pit which had largely been dug away by the post-Roman Pit 16 (Fig. 5). Of particular interest was the mortar layer (Layer 2) overlaying the clay deposits, which is perhaps best interpreted as a floor of the stone building, the survival here having been due to the land subsidence. A thin layer of brown soil overlay the floor, and above that was a dump of brickearth (Layer 1).

ROOM 4:

This was a small chamber about 3.40 m wide (east–west), which extended southwards beneath the pre-1666 tower of the church. No definite floor surface was recorded.

ROOM 5:

Traces of only the east wall of this room were found: the presumed north, west and south walls could not be located as they either lay beyond the limits of the excavation or had been destroyed. Assuming that the west wall of Room 3 had continued southwards to form the west wall of Room 5, it may be conjectured that Room 5 was about 3 m wide (east–west).

ROOM 6:

This room had suffered a very considerable amount of later disturbance with the result that the positions of the walls and the associated stratigraphy are very difficult to interpret. Indeed, more than one room might have existed, but in the absence of any evidence it is here assumed that Room 6 was one chamber.

The south wall of this room had clearly been added to the east wall of Room 1, the foundation of the former being separated from that of the latter by a straight joint. Only the bottom of the foundation of this south wall had survived beneath the later disturbances. Its foundation was different from the construction of the east wall of Room 1, for it had been built of rough pieces of ragstone, tiles (mainly *tegulae*) and lumps of mortar, and the whole foundation had been dug into some of the underlying dumps of brickearth.

The east wall of the room was only recorded in section (Section A–B, Fig 3). It was a little different in build from the walls in the western part of the site, its construction comprising a ragstone and yellow mortar wall and foundation on top of a lower foundation apparently of unmortared ragstone set in clay—this suggesting the existence of more than one period of construction. There were possible traces of a course of bonding tiles at the top of the wall.

What may have been the floor of this room had survived in a small undisturbed area between Pits 9 and 10 (Section A–B, Layer 10). This was a floor of *opus signinum* which had been built on top of a dump of brickearth. It is perhaps significant that the “offset” on the west face of the east wall of this room coincided in level with the *opus signinum* floor, indicating that the floor and wall were originally directly associated.

ROOM 7:

This was a chamber about 2 m wide (north–south) adjacent to Room 6, and it had clearly been added to the earlier Room 2 for the foundations of its north and south walls had been built up against the east wall of Rooms 2 and 3. The north wall of Room 7 was also the south wall of Room 6 and has already been described under Room 6. The foundation of the south wall of Room 7 had survived, this being of the same generally rough construction as the north wall of the room. A small portion of Roman mortar floor was found in an area of shallow subsidence in this room, and it is possible that this was part of the floor of this Roman building.

Deep post-Roman disturbances had removed most traces of the foundations of this room, though the very bottoms of what appear to have been two north–south walls were found in the area of Room 7. The easternmost foundation built of ragstone lying in brickearth seems to have had a straight edge on its east side, and may be interpreted as the east wall of this room. The other foundation lay near the middle of this small room, and although of similar unmortared stone construction, its significance is less easily understood. It is possible, however, that more than one phase of construction is represented here, though as so little of the structure remains it is impossible to interpret it with any degree of certainty.

ROOM 8:

This is presumed to have been a room, but in fact it is merely the area south of a wall uncovered at the southern edge of the excavation to the east of Room 4. It seems reasonable to assume that it was the north end of a room, however, but as the wall, only the foundation of which had survived (this being very similar in construction to the north and south wall foundations of Room 7), was built up against the east wall of Room 4, it is clear that Room 8 had been added to Room 4.

AREA A:

This is the region lying between Rooms 7 and 8, which may have been an additional room in the Roman building, or perhaps it may have comprised a small courtyard enclosed by two or three wings of the Roman building. Unfortunately, post-Roman disturbances had removed all trace of the nature of this “area”, though the two Roman rubbish pits (Pits 5 and 6), at least one of which was of Flavian date, might, assuming that they are contemporary with the Roman stone building, indicate that this was an open, outside area rather than part of the interior of the building.

AREA B:

This too could have comprised another room of the Roman building, though if this was the case it did not have any mortar floor (Section A-B, Fig. 3). A layer of dumped brickearth (Layer 5) was found overlaying the projecting foundation of the west wall of Room 6, and over this was what seemed to be a dump of grey, rubbly earth containing fragments of tiles. This may have formed a working surface in Area B for the duration of the earlier occupation of the Roman building though, of course, this is uncertain. It is perhaps significant that this "surface" is at about the same level as the *opus signinum* floor inside Room 6.

Above Layer 4 were deposits of brick earth containing some building debris, Layer 2, immediately above which was a layer of broken mortar which may represent the destruction of the Roman building.

PIT 5 (Fig. 2):

A pit which contained a few sherds of the first century A.D. (Fig. 11, No. 65), cut by Pit 6.

PIT 6 (Fig. 2):

A Flavian rubbish pit, not stratigraphically related to any of the other Roman features on the site contained fragments of pottery, glass, tiles, painted wall plaster and *opus signinum* (Fig. 10, Nos. 22-37; Fig. 11, Nos. 41-64; Fig. 12, No. 94). Also found was a small tile which had probably been derived from a herringbone pavement. This pit had been partly dug through the earlier Pit 5.

DATING EVIDENCE:

Almost no evidence was recovered from the Roman building to help date its construction and occupation. Pottery from the "Upper Clay Dump" and from the "Lower Clay Dump" below the Roman stone building show that the building was constructed not earlier than the Flavian period. The pottery in the dump of brick-earth over the building after its demolition (Section F-G, Layer 1, Fig. 4) is also of Flavian date and therefore is unlikely to reflect the date of the destruction of the building (Fig. 11, Nos. 70-77).

PERIOD 4:

The Period 3 stone building was destroyed in Period 4, after which thick dumps of brickearth were deposited all over the site, perhaps in preparation for a new building development.

If the building had been constructed entirely of stone it is natural to assume that there should be at least some demolition debris under the later dump of brickearth which overlay the stone walls (e.g. Section F-G, Layer 17, Fig. 4). In fact, no roof tiles or other building materials were found, except as a scatter with other artifacts in the dumped clay. Indeed, as the dumped brickearth must have been derived from elsewhere it would seem most likely that so too were the building materials and other items found scattered throughout it.

The absence of a layer of ragstone and tile debris representing the demolition of the Roman building might be interpreted in one of two ways. It might be argued that the surviving low stone walls had merely supported a clay and timber upper work; or, alternatively, that the walls were of stone but had been systematically demolished and the debris removed. The former suggestion might help to account for the great quantity of dumped brickearth, but although the walls had survived to a variety of different levels, indicating uneven demolition, it was clear from the excavation that in spite of there being areas where the demolition of the stone walls had certainly taken place, such as the south wall of Room 3, there was still a marked absence of demolition debris.

The unavoidable inference is, therefore, that the building was probably constructed with stone walls, and presumably a roof of tiles, but that the demolition had occurred in a systematic fashion with almost every piece of rubble having been removed from the site, presumably for re-use elsewhere.

The dump of brickearth (Sections A-B, Layer 1, Fig. 3 and F-G, Layer 17, Fig. 4) which overlay the stumps of the Roman walls and foundations, was presumably deposited to level up the site by burying earlier features, prior to some new building development. The brickearth contained a scatter of building debris which included tiles and painted wall-plaster, and also some pottery, none of which was later in date than the late first century A.D. In Section F-G there was also a suggestion of a pit having been filled with the dumped brickearth, but this had almost completely been dug away by the post-Roman rubbish Pit 7 (Fig. 5).

DISCUSSION:

THE ROMAN PHASES 1-4

Although the stone building is the major Roman structural feature on this site, its relationship and association with the other phases of human activity uncovered in the excavation is crucial to the understanding of all Roman phases. A marked feature of the site is the series of major and minor dumps of brickearth, and the apparent absence of any certain deposits of occupation debris.

In phase 1 there is little evidence of human activity on the site prior to the dumping of brickearth in phase 2, this presumably meaning that the dumping occurred fairly early during the Roman period, and presumably during the first century A.D., as first century occupation has been found nearby.²

The dumping itself occurred in two major layers, each deposit being of almost equal thickness though of differing extent. Again, there is little sign of any significant land use or pause in the dumping process, suggesting that the dumping was a continuous process and that the land surface was raised in two levels. The only really definite trace of an activity between the two phases of dumping was the digging of Pit 3 (Figs. 2 and 3), which was filled up with brickearth, apparently before any rubbish had accumulated in it. So although the digging of this shallow pit possibly indicates a pause within the dumping process, its filling shows that it was a short-lived feature of the site. Although the reason for the dumping is uncertain, it is significant that the Roman stone building of Period 3 lies directly on the dumped brickearth without any intervening deposit of occupation or other debris as might be expected had the dumping been for some purpose other than to form an elevated level base for the stone building. Indeed, the relationship between the stone building and the dumping is more certain when it is realized that the uppermost dump of brickearth approximately sets, at least on its eastern side, the limit of the stone building in its early phase.

It is difficult to ascribe a close date to the dumping as pottery found in the brickearth deposits may be presumed to be derived, like the brickearth, from elsewhere, and its Flavian date does not necessarily reflect the date of the dumping. Nevertheless, as Flavian occupation existed nearby it is reasonable to expect that some evidence of the Flavian occupation in the area would have been found on the site had the dumping occurred later than the Flavian period.

The stone building constructed in Phase 3 initially appears as a north-south structure with a range of rooms of varying size. It is difficult to interpret this incomplete plan, but it is interesting that there is no certain trace of a corridor to link the rooms on its eastern side, unless, of course, one of the shallow and largely destroyed foundations beneath Room 7 was the only surviving remnant of a corridor. This seems unlikely, however, as the stone and clay foundations are of a different construction from the foundations of ragstone and concrete of the main building. Also perhaps suggesting that the frontage of this building lay on its west side is the lack of any form of hard surface to the east of the building (Section A-B, Fig. 3). Instead we might perhaps interpret the plan as possibly the south-east corner of an L-shaped building, the "corridor" Room 2 being situated at the junction of the east and south wings, and that the area or chamber to the west of room 1 may have been a frontage corridor of an east wing. Only further excavation, however, will confirm this suggestion.

There are certainly at least two construction phases represented in the stone building, for abutting its east side were added some extra Rooms 6, 7 and 8, all of which are of uncertain extent. The two rubbish Pits 5 and 6, presumably represent local occupation, and in view of their Flavian date it would seem that they are probably contemporary with the stone building. If this is so it is to be inferred that the area in which they were dug, Area A, was outside the stone building.

The floors of the earlier phase of the stone building present a problem of interpretation for the sections, especially H-K and E-G, show that a series of layers of brickearth were deposited inside Rooms 1, 2 and 3 after the walls of the building had been constructed. The problem that they pose is whether or not they represent a series of clay floors, or alternatively

dumps of brickearth inside the rooms to raise the ground level inside the building in preparation for laying proper floors. The absence of any clear occupation debris on the clay layers and any trace of wall plaster on the wall faces perhaps suggests that the latter possibility is correct, though otherwise the evidence is not really conclusive. It should be noted that slight traces of concrete floors were found preserved in areas of subsidence in Room 3 (Section C-D, Layer 2, Fig. 3) and Room 7, and that a small portion of the floor of Room 6 survived in Section A-B. Only in room 1 was any trace of a concrete floor definitely associated with the walls of the room, there having been three floors each with a quarter-round moulding at the junction of floor and wall. The survival of this floor is presumably due to it having been a little lower than the floors in other rooms.

The Roman stone building seems to have been part of a development of stone buildings (Fig. 1B), presumably houses, which have been found to the north of this site at Gateway House and Watling House.³ The discovery of a Roman cold plunge bath, measuring 4.41 m by 2.45 m⁴ immediately east of the St. Mildred's site suggests that perhaps a public bath building was situated there, the pool being rather large for a private bath suite. Perhaps arguing against this suggestion is the presence nearby at the edge of the Thames of another great public bath building, in Huggin Hill,⁵ though there is no evidence at present to suggest that all of these stone buildings were contemporary with the building on the St. Mildred's site. Most of the sites mentioned here, however, were investigated after the 1939-45 War and are due to be published in detail by the author, when their relationships to each other will be considered.

The dumping of large quantities of brickearth during the Roman period is not a feature peculiar to the St. Mildred's site, this having occurred apparently about the same time in the nearby Huggin Hill public baths.⁶ The source of the brickearth was probably nearby where on the Financial Times site Professor W. F. Grimes found extensive traces of quarrying for brickearth and gravel.⁷

PERIOD 5 (Fig. 5):

Burials and other disturbances immediately overlay the Roman deposits, but cutting into the Roman deposits were various rubbish pits and the bottom of a sunken hut all representing an otherwise destroyed period of occupation which followed the Roman period, but existed prior to the construction of the church of St. Mildred probably during the twelfth century.

THE HUT-PIT:

The lower part of a sunken timber hut was found near the centre of the later medieval church site. It had been built in a hollow, only the lowest half metre of which had survived. The hut had been extensively damaged by later disturbances, parts of the south and west sides only having survived. Sufficient remained, however, to show that projecting from the west side was probably once a porch, the floor of which lay at an intermediate level between the ground level outside the hut and the bottom of the hut-pit. The sides of the hut-pit were roughly vertical (see Section L-M, Fig. 4), and were originally held in position partly by a series of posts of irregular shape and size, which above ground level formed the framework of the hut wall.

Unfortunately, the archaeological deposits overlying the post-holes of the south side of the hut-pit had all been removed during the mechanical clearance of the site immediately prior to the start of the archaeological excavation, but the filling of the holes themselves remained. Each post-hole had apparently been dug into the natural subsoil so that a post could be set in it, for in some of the holes clear evidence of packing rubble was found which once held the posts upright during the initial construction of the hut. The post-holes varied in size and shape but roughly averaged about 300 mm in diameter, and their bottoms were either flat or rounded.

Post-hole 4 was filled with dark grey-brown clay, and contained some large bone fragments. The base of the post-hole lay about 400 mm below the general bottom of the hut-pit.

Post-hole 5 was also filled with dark grey-brown clay, and contained some packing material of large pieces of tiles and ragstone. The bottom of the post-hole lay about 500 mm below the general base of the hut-pit.

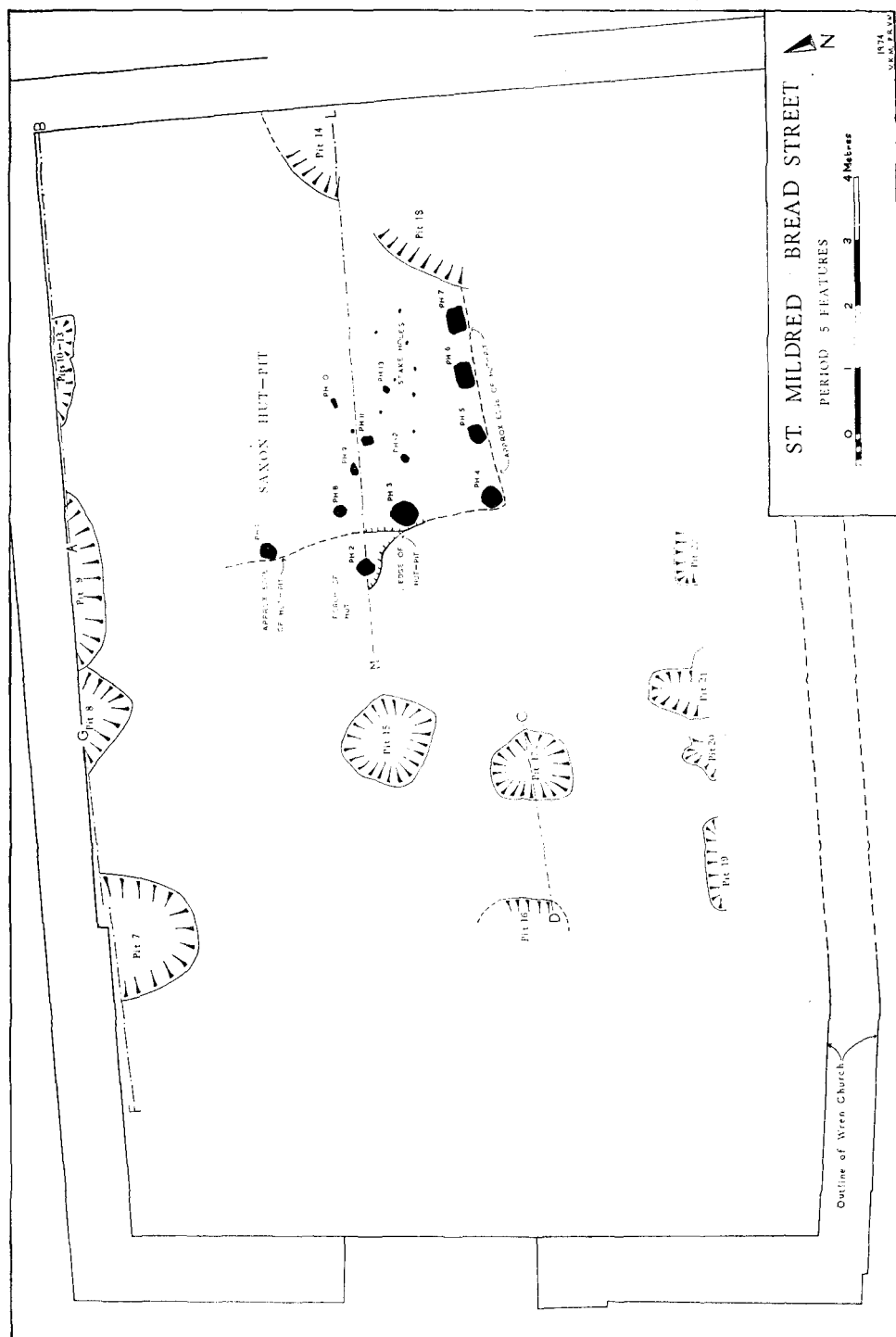


Fig. 5. St. Mildred's Church. Saxon hut, and Saxon and early medieval pits.

Post-hole 6 was filled with dark-brown clay, and contained a packing of large pieces of tile, of broken *opus signinum*, and ragstone. The bottom of the post-hole lay about 600 mm below the bottom of the hut-pit.

Post-hole 7 seems to have comprised one or more holes dug into the natural subsoil, but the main post-hole itself lay at the east end and was filled with dark grey-brown clay with a few fragments of tiles used as packing material. Traces of the actual decayed post were found, this being rectangular in section and measuring 140 mm by 90 mm, though it is not certain whether this was the actual size of the post or merely the remains of the decayed core of the post. The long side of the post lay parallel to the south side of the hut-pit. The south side of the hut to the east of this point had been destroyed by later pit digging.

The posts forming the west side of the hut were disclosed beneath Layer 6 (Section L-M), a thin, peaty deposit lying on the bottom of the hut-pit.

Post-hole 3 contained in its dark peaty filling traces of the bottom of the decayed wooden post 170 mm square which was sloping a little to the east (*i.e.* towards the hut interior). Some Roman tile had been packed around the post, and the bottom of the post-hole lay 330 mm below the bottom of the hut-pit (see Fig. 13, No. 102).

Post-hole 1 did not contain any trace of the actual post, but otherwise there was some packing material which once lay around the post. The bottom of the post-hole lay 150 mm below the bottom of the hut-pit.

A number of smaller post-holes and, it seems, small stake holes were found in the hut-pit at its south end. It is difficult to interpret their function as there is no easily recognizable pattern. A series of larger post-holes (Post-holes 8, 9, 10, 11, 12 and 13) may have been associated with the porch as they lay just inside its south side.

Post-hole 9 was filled with dark peaty soil, and appears to have been driven into the natural subsoil instead of having been placed in a pit. Its bottom lay at 280 mm below the hut-pit (see p. 203, Nos. 103-104, not illustrated).

Post-hole 12 also had been driven into the natural subsoil to a depth of 320 mm below the hut-pit bottom.

Post-hole 11 was a shallow scooped hollow in the natural subsoil only 110 mm deep, and it was filled with dark peaty soil.

The porch is represented by post-hole 2 (Section L-M, Fig. 4) which was dug from a higher level outside the hut-pit, and it appears to have been located at the edge of a shelf, the southern edge of which was found, at an intermediate level between the bottom of the hut-pit and the now destroyed outside ground level.

No definite trace of any timber flooring was found, and the bottom of the hut-pit was covered by a layer of black peaty soil (Section L-M, Layer 6). This may have been a kind of silting at the base of the hut-pit which had accumulated during the life of, or soon after, the destruction of the hut. This layer filled and overlay Post-holes 3, 5, 9 and 11 but, unfortunately, the relationship between this deposit and Post-holes 1, 4, 5, 6 and 7 is unknown.

The dark silting Deposit 6 was overlaid by two dumped deposits of dirty brickearth (Section L-M, Layer 5, Fig. 4), and grey-brown clay (Layer 4; see also p. 203, No. 105). The top of this dumping formed a surface gently sloping down to the east on which apparently more dumping occurred in the form of clay and building debris and a quantity of burnt wood and clay (Layer 2; see p. 203-204, Nos. 106-107). A sample of charcoal from the dump of burnt debris above Layer 2 has been dated by Carbon 14 to A.D. 470 \pm 100 (see p. 205), which seems to confirm that these dumps comprised Roman and other material derived from elsewhere.

The pause between the two phases of dumping was represented by the silt layer (Layer 3) which may have been related to some form of timber structure occupying the partly filled-in hut-pit hollow. Certainly the original hut had been dismantled prior to the dumping of Layers 5 and 4 as that material overlay the post-holes. In the very limited surviving extent of Layer 3 no trace of any posts was found, but associated with the silty Layer 3 were a series of burnt wooden boards, perhaps the remnant of a floor, the grain of which was almost parallel to the west side of the hut-pit hollow (Fig. 6). Alternatively, the boards may merely represent part of the dumping.

THE PITS (Fig. 5):

A series of rubbish pits was found on this site, each of which had been dug into the surviving Roman deposits. In general very little dating evidence was recovered from them due to the limited time available for the excavation, and several of the pits were seen in section only. Mostly the dating evidence recovered from the pits was of late Saxon date (see report on finds 201-205), and it seems likely that some of these pits may have been associated with the occupation of the sunken Saxon hut and possibly nearby buildings.

Pit 7:

Cut into Room 1 of the Roman building. Some sherds of late Saxon date (Fig. 13, Nos. 129, 131; p. 205, Nos. 130, 132, not illustrated).

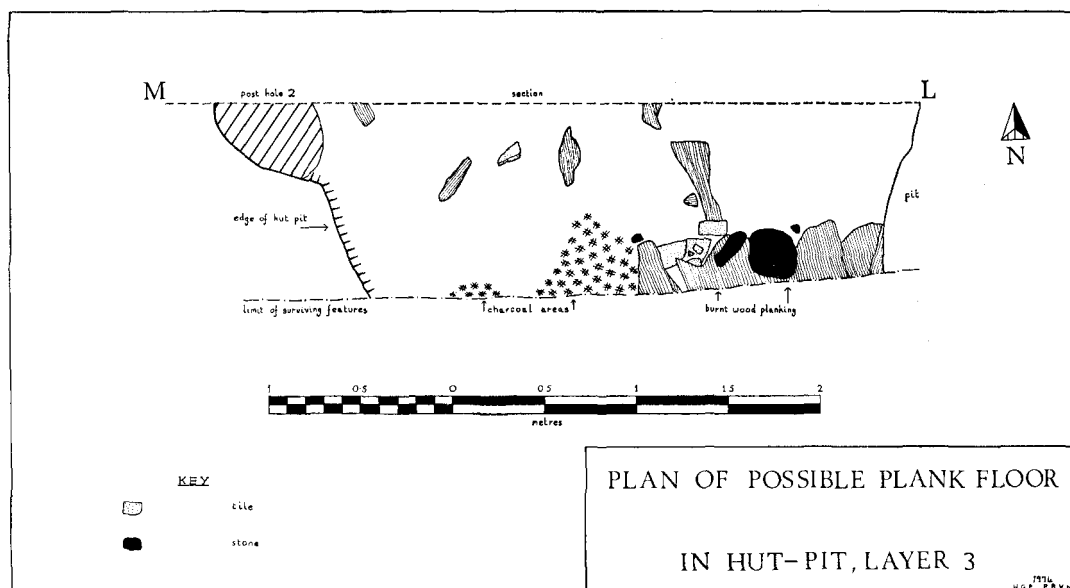


Fig. 6. St. Mildred's Church. Plan of possible floor in Saxon hut.

PIT 8:

A few sherds, possibly of middle Saxon date (Fig. 13, No. 120).

PIT 9:

Not investigated.

PIT 10:

Cut into Room 6 of the Roman building. A few sherds of mid-late Saxon date. This was cut by three other pits, including Pit 11, none of which were dated (p. 205, No. 133, not illustrated).

PIT 14:

Cut into hut-pit. A few sherds, possibly late Saxon date (p. 204, Nos. 121-26, not illustrated).

PIT 15:

Cut into the east wall of Room 3 of the Roman building. Some late Saxon sherds were recovered (Fig. 13, Nos. 111-12; p. 204, Nos. 113-15).

PIT 16:

Cut by the foundation of the medieval church tower (see Section C-D). Some sherds of twelfth century date (Fig. 13, Nos. 134-41).

PIT 17:

Cut into the east wall of Room 3 of the Roman building. Some late Saxon sherds were also recovered (Fig. 13, No. 116, p. 204, Nos. 117-19, not illustrated).

PIT 19:

Not investigated.

PIT 20:

Not investigated.

PIT 21:

Cut into the north-west corner of Room 8 of the Roman building. Some sherds of late Saxon date (Fig. 13, No. 127; p. 205, No. 128, not illustrated).

PIT 22:

Not investigated.

DATING EVIDENCE:

The quantity of dating evidence recovered from the pits is small and, therefore, caution must be used in ascribing positive dates to the various pits. Nevertheless, almost all the dateable pottery is consistently of late Saxon period, though a few possible middle Saxon sherds may be indicative of earlier occupation. It seems likely, therefore, that most of the pits are of late Saxon date, though Pit 16, which contained some early medieval coarse pottery, also included one glazed sherd indicating that it should not be earlier than the twelfth century (see p. 205).

The date of the Saxon hut is uncertain due to the limited amount of evidence. No pottery recovered from its dumped in-fill which followed its destruction is later than the late Saxon period. One sherd recovered from Post-hole 3 (Fig. 13, No. 102) is perhaps of middle Saxon date, the sherd probably being introduced into the post-hole pit at the time of the construction of the hut.

SIGNIFICANCE OF THE HUT-PIT

The structure represented by the hut-pit is part of a well-known type of timber building common in various parts of Europe during the Dark Ages.⁸ It is usually characterized by its square or rectangular form, sometimes a sunken floor, and two or more post holes forming the base of upright walls, these posts usually being set in broad or round bottomed holes dug at the edge of the hut.

In Britain hut-pits are being recognized in increasing numbers on Saxon settlement sites, their dates ranging from soon after the end of the Roman period as at Lower Warbank, Keston in Kent,⁹ and the general type continues to occur into late Saxon times as at Thetford.¹⁰

Huts of the type that occurred at St. Mildred's have already been found in London by Professor W. F. Grimes on the Financial Times site in Cannon Street, in Addle Street and perhaps in Bucklersbury.¹¹ Of these hut-pit 2 measured 9.91 m by 5.18 m (Fig. 7) and was situated in a pit about a metre deep. In the hut were traces of at least two timber floors, as well as timber wall linings. Also about the middle of one of the long sides of the hut were traces of a porch and the remains of a wooden sill. The similarity between hut-pit 2 and the St. Mildred's hut is striking, both having porches, and also a series of larger post-holes inside the hut area close to the porch entrance. Assuming that the porch in the St. Mildred's hut was central to its west side we may conjecture that the hut was probably about 5 m long, though its width is uncertain.

Rarely is there any definite trace of hut structure other than the floor and post-holes, so the discovery of surviving details of floor and wall construction in the hut on the Financial Times site is most unusual. Nevertheless, it is perhaps worth noting here the recent discovery on two sites in the City of the re-use in early medieval contexts of timber posts which seem to have been derived from timber buildings similar to the type of hut which was found at St. Mildred's, though not necessarily with sunken floors. The timbers have been found re-used in waterfront constructions in the area of Baynard's Castle, and also at Seal House near London Bridge. The posts evidently formed the framework of buildings, the vertical slots in their sides containing plank walls. A typical post, re-used in a thirteenth century waterfront on the Baynard's Castle site is reproduced here (Fig. 8). The variety of slot forms on posts is also shown in diagrammatic form and it is clear that this type of timber building had square corners (a), a series of upright posts on each side (b), and with internal cross partitions (c). It is particularly significant that as the grooves do not continue to the bottom of the post the lower part of the post was evidently buried in the ground, the flat bottom of the post showing that it was not driven into the ground, but buried in a specially dug post-hole pit.

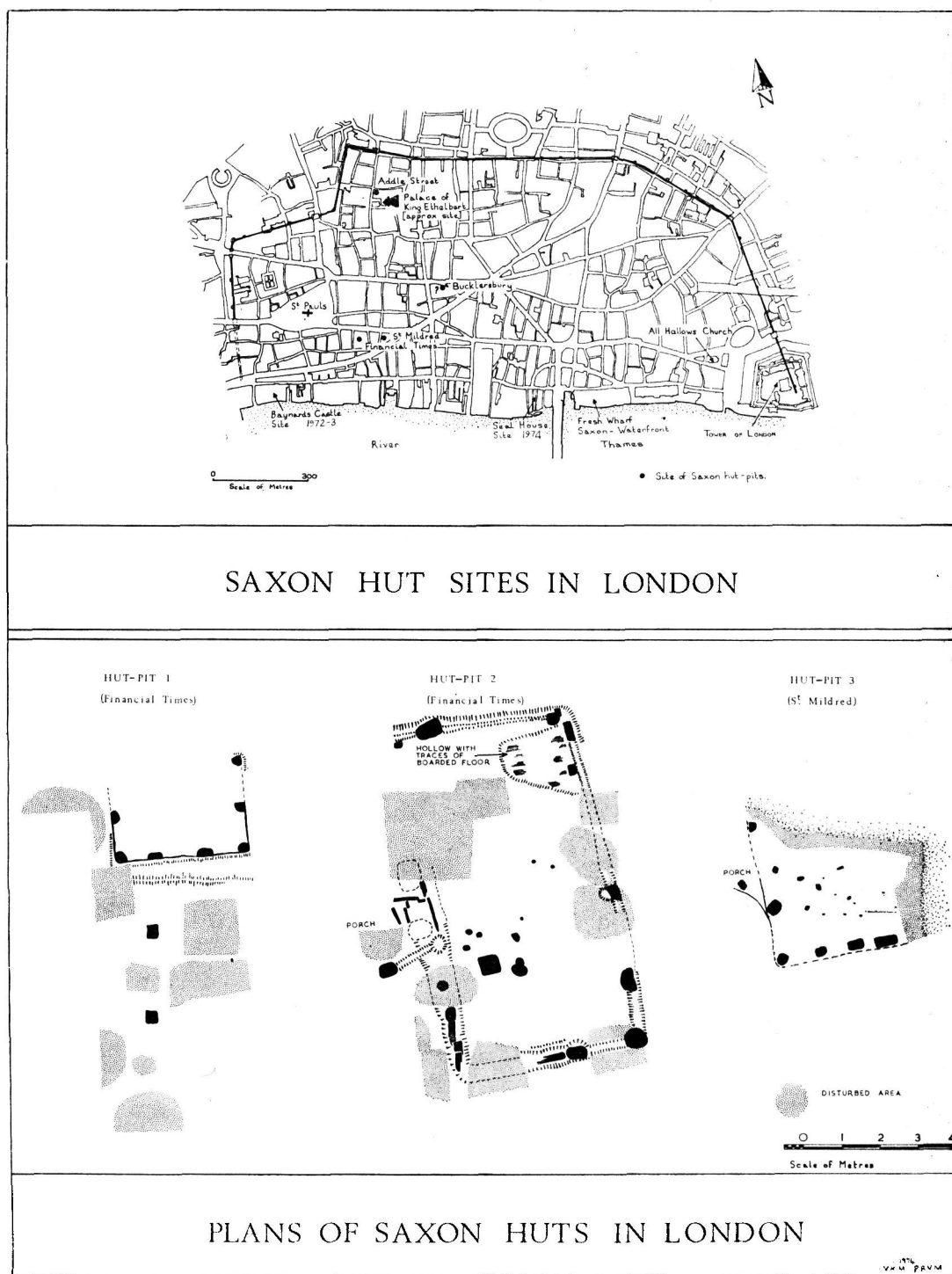


Fig. 7. St. Mildred's Church. Saxon huts in London.

Hut-pits of the London type are often interpreted as the homes of humble peasant folk, and excavations elsewhere indicate that they were usually centered on a long house of some form.¹² In London the St. Mildred's hut and the hut-pits on the Financial Times site could well have formed part of a single group of Saxon houses based upon a main building. However, it may be fortuitous, but worthy of comment, that the four certain Saxon hut-pits which have been found in London, in spite of extensive excavation on many sites, have all been found in the western half of the City; and that except for the uncertain discovery in Bucklersbury, all the huts lay in close proximity to probably the two most important focuses of Saxon London—the traditional site of the palace of King Ethelbert in the Aldermanbury region,¹³ and to St. Paul's Cathedral.¹⁴

Although the distribution of hut-pits in the City (Fig. 7) may merely reflect the areas of major post-War controlled archaeological excavation, the recent suggestion that compared with researches into Roman London, "the archaeology of Anglo-Saxon London barely exists as an organized field of enquiry",¹⁵ is not strictly true for definite efforts have been made to fill the Dark Ages gap in the archaeological record, although with little result. This is largely because the post-Roman stratified deposits have usually been destroyed, even on medieval church sites; and it is worth remembering that the Saxon hut on the St. Mildred's site only survived because it had a sunken floor. Nevertheless, it would be correct to say that more enquiry needs to be directed towards the problem of Anglo-Saxon London, perhaps by looking more closely at the contents of rubbish pits to define those which had been dug by the inhabitants of the destroyed Saxon city.

Much archaeological excavation has taken place in the City since the War, and had Saxon huts with sunken floors been particularly common it is likely that others would have been identified. The Saxon city was certainly extensive, reaching from the St. Paul's-Aldermanbury area in the west to the area of All Hallows Barking Church near the Tower of London in the east, and down to the waterfront, as at New Fresh Wharf, where a seventh-eighth century waterfront was recently discovered (1974). Negative archaeological evidence from excavations over so wide an area would suggest, as might be expected, that the majority of Saxon timber buildings in London were not of the sunken floored variety.

In the absence of any stratigraphical relationships it is not possible to link the various pits on the St. Mildred's site, in which Saxon pottery was found, to the hut-pit, but it might perhaps be reasonably assumed that the pits and the hut were mostly contemporary. Unfortunately, in most cases there is insufficient dating evidence either from the pits or from the hut to precisely define their age or to be certain that they were contemporary.

PERIOD 6—THE MEDIEVAL CHURCH (FIG. 9)

Although the physical remains of the medieval church were extremely fragmentary enough had survived to make it possible to establish certain indications of its layout and size during the Middle Ages. The fragmentary foundations were of three different forms of construction, these presumably indicating separate building phases.

One type of feature found on the site was a form of gravel-filled hollow seen only in the sides of the excavations (Sections H-I, L-M, Fig. 4) and traced for a very limited extent. It is unlikely that they were gravel filled pits, but more probably gravel foundations of the earliest phase of church on the site. Gravel and chalk combined were extensively used in the City to form early medieval church foundations, as at St. Nicholas Acon,¹⁶ and St. Michael

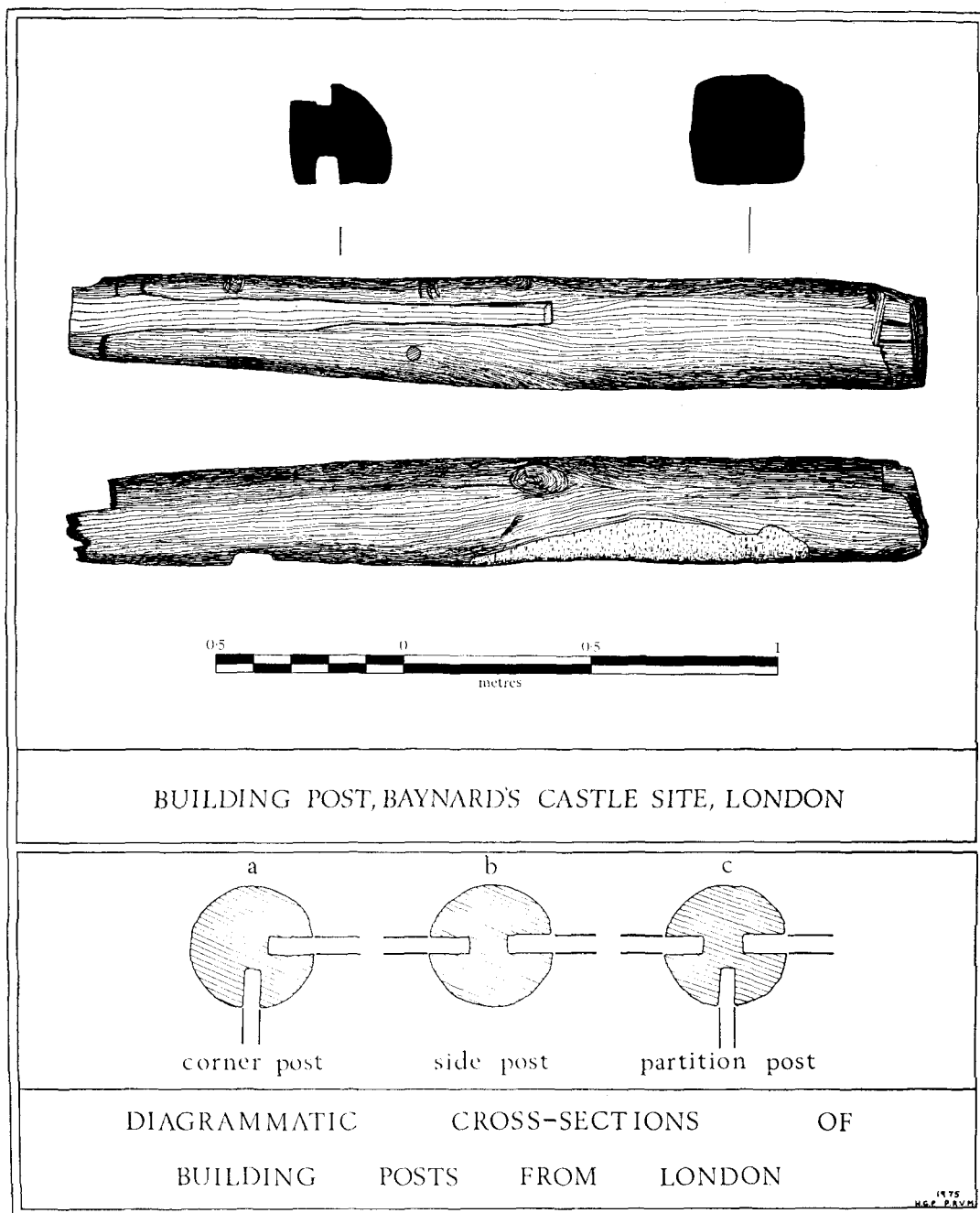


Fig. 8. St. Mildred's Church. Building posts of Saxon type from London.

Bassishaw,¹⁷ and instances are known of gravel-filled trenches only being used as foundations as in the late Saxon church of St. Brides.¹⁸ Assuming that this interpretation of the features at St. Mildred's church is correct we can conclude where the early medieval church was located, though we do not know its shape or extent. It is significant that the twelfth century pit (Pit 16, Fig. 9) was situated between the two gravel foundations, and therefore probably in the area which was occupied by the early church. In view of this it would seem probable that the early church building, at least in that area, was constructed not earlier than the twelfth century.

A second type of foundation, mostly comprising ragstone and mortar, was located beneath parts of the south and east walls of Wren's church, but the surviving remains were very limited in extent. Under the south wall of the church was found clear evidence of a deep east-west foundation rising in level on either side to form relieving arches at the base of the foundation. Other fragments of similar medieval wall foundations were located under the south-east corner of Wren's church, and just south of the north-east corner of the church, and it is possible that these too were the deep points of a wall foundation built in the form of a series of relieving arches. No indication of the age of these foundations was discovered, though as they contained mortar they are unlikely to date from before the thirteenth or fourteenth centuries. Their similar construction technique suggests that they formed one phase of building.

The final form of foundation was located only in the south-west area of the church, and was clearly the base of a tower of the church prior to the Great Fire of 1666. The documentary evidence (see p. 192) indicates that there was a tower in this position in 1428. It was built on a foundation of chalk and yellow mortar, the north, east and south sides of the tower, and probably the west side which was not found, each containing a relieving arch. Judging from this it would seem that the tower was probably about 5 m square. Curiously it was out of alignment with the rest of the pre-1666 church outline, and it was evidently responsible for the change of alignment in the south wall of the Wren church, at the west end of the site. In the unexcavated soil under the relieving arch on the south side of the tower was found an earlier foundation of stone and brown mortar, somewhat similar to the foundations beneath the south and east sides of Wren's church. Little of this was seen, but in view of its position under the relieving arch of the tower, and also in view of its differently coloured mortar from that of the tower, it would seem to have belonged to an earlier building phase, possibly a deep part of a relieving arch of the second form of foundation situated in the south-west corner of the medieval church.

Immediately on the south side of the pre-Great Fire church tower was yet another foundation of chalk, ragstone, and buff mortar, the significance of which is unclear from the archaeological evidence, but which the documentary evidence suggests was part of a parsonage house built soon after 1485 (see p. 192).

We might conclude from this very limited evidence, therefore, the following points: (1) that the church was built during the twelfth century, and that it occupied at least the south-western quarter of the later church built by Wren; (2) that the later medieval church probably occupied at least the same area as the Wren church, with the position of the south and east walls approximately coinciding; and (3) that prior to 1428 a tower was added to the south-west corner of the church, probably involving the demolition of the south-west corner of the church.

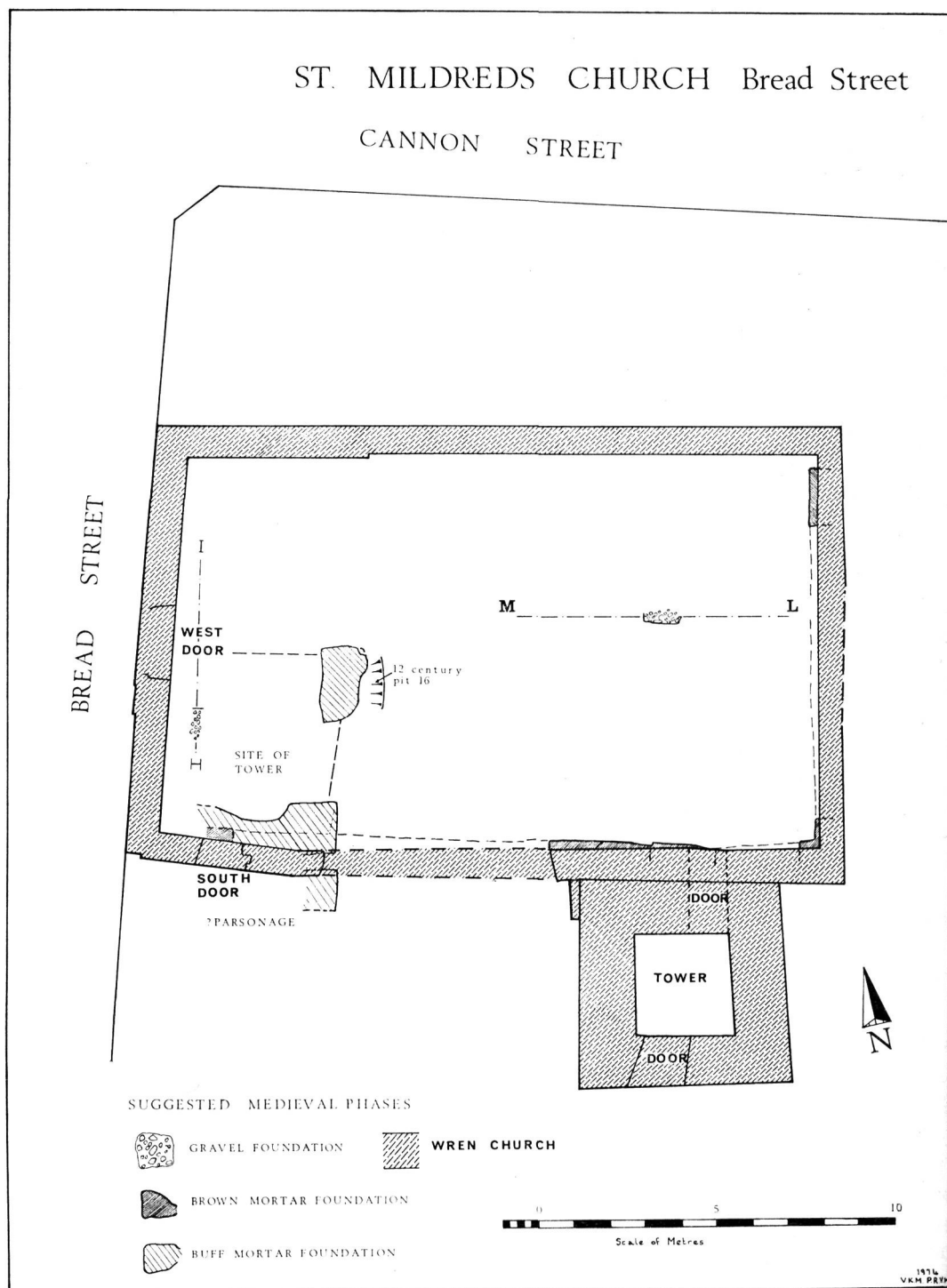


Fig. 9 Plan of St. Mildred's Church.

REFERENCES

- ¹ *Wren Society* 9 (1932) 55.
- ² R. Merrifield, *The Roman City of London* (London, 1965) gazetteer 69-80; P. R. V. Marsden, "Archaeological Finds in the City of London, 1963-64", *Trans. London and Middlesex Archaeol. Soc.* 21, pt. 3 (1967), 194-202.
- ³ Merrifield, *loc. cit.*
- ⁴ *Ibid.*, site 86.
- ⁵ Marsden, *loc. cit.*
- ⁶ *Ibid.*, 200.
- ⁷ W. F. Grimes, *The Excavation of Roman and Medieval London* (London, 1968) 145-46.
- ⁸ E.g. for Germany see P. Grimm, "The Royal Palace at Tilleda, Kv. Sangerhausen, D.D.R.: Excavations from 1935 to 66", *Medieval Archaeol.* 12 (1968) 83-100.
- ⁹ *Medieval Archaeol.* 15 (1971) 127-28.
- ¹⁰ B. Davison, "The Late Saxon Town of Thetford: An Interim Report on the 1964-66 Excavations", *Medieval Archaeol.* 11 (1967) 192, Fig. 52 (building J).
- ¹¹ Grimes, *op. cit.*, 155-60.
- ¹² C. Ralegh Radford, "The Saxon House: A Review and some Parallels", *Medieval Archaeol.* 1 (1957) 27-38.
- ¹³ Grimes, *op. cit.*, 159.
- ¹⁴ *Victoria County History: London 1* (London, 1909) 409.
- ¹⁵ M. Biddle and D. Hudson, *The Future of London's Past* (Rescue publication No. 4, Worcester 1973) 16.
- ¹⁶ Marsden, *op. cit.*, 219-20.
- ¹⁷ P. R. V. Marsden, "Archaeological Finds in the City of London, 1965-66", *Trans. London and Middlesex Archaeol. Soc.* 22, pt. 1 (1968) 14-16.
- ¹⁸ Grimes, *op. cit.*, 185-86.

ST. MILDRED, BREAD STREET: DOCUMENTARY SURVEY

BY TONY DYSON

The earliest mention of the church of St. Mildred dates from c. 1170,¹ after which references occur fairly frequently.² This circumstance is consistent with the conclusion drawn from the archaeological evidence of a twelfth century pit between two gravel foundations, namely that the first church building, at least in that (western) area, was constructed not earlier than the twelfth century. On the other hand the notion of a purely post-Conquest church dedicated to a popular Saxon saint is not easily acceptable. The advowson, together with those of five other churches, including St. Mildred Poultry and St. Benet Sherehog (first mentioned in 1111-31), belonged to the Augustinian priory of St. Mary Overy, Southwark³ (founded in 1106). St. Mildred, a lady with royal Mercian, Kentish and West Saxon connections, who was the first abbess of Minster-in-Thamet and died c. 700 became the object of a popular cult in, or shortly before 1033, when her remains were translated from Thanet to Canterbury,⁴ and the possibility remains that this church, and St. Mildred Poultry, was founded within a few years of this event. Excavations conducted in 1897-98 to a depth of some 16 ft below the floor of the church disclosed charred fragments of wood from an "ancient edifice",⁵ and wooden churches are known to have existed in the City as late as the early twelfth century.⁶

According to Stow the church was either rebuilt or substantially renovated by Lord Trenchant c. 1300,⁷ but no other evidence of this operation or, indeed, of the man can now be found. The earliest topographical information available is provided by the will of Sir John Shadworth, a mercer and former mayor, who in 1428 bequeathed to the rector and churchwardens a plot of land south of the church for use as a parsonage house and graveyard.⁸ The bequest establishes the main east-west dimension of the church at a minimum 61 ft 1½ in, and an earlier deed of Shadworth's, dated 1404, shows that the vestry was situated at the eastern end of the south wall, and also that the church, or its immediate precinct, must have extended still further eastwards since it shared a common boundary—for some unspecified distance—with a property east of the churchyard area.⁹ This additional length cannot have been great since Ogilby's map of 1677, drawn at a scale of 100 ft to the inch, records the site of the church, which had been destroyed in the Fire as (approximately) 40 ft east and west, 62 ft north and 64 ft south. Also, although Wren's rebuilding of 1682-83 required the addition of a "small slippe or peece of land" to the east,¹⁰ the recovery below his east wall of two fragments of the medieval church wall, including a right-angle at the

south-east corner, suggests that the east-west dimensions of the two churches were practically the same. Ogilby's eastern measurement of 40 ft is roughly confirmed by the 38 ft given in a conveyance of March, 1672, relating to Gerrards Hall, a large tenement to the east of the church.¹¹

The exact description and measurements of the Shadworth bequest also fixes the position of the church tower at the south-west corner of the medieval church, in conformity with the plans of St. Andrew Undershaft and St. Olave Hart Street,¹² but precluding a location at the west end of the nave of an aisled church, the most usual pattern in City churches whose medieval plans have been recovered.¹³ Archaeological evidence confirms the documentary records, for the foundations of the medieval tower were located at the south-west corner of the church, and just south of them a wall which was probably associated either with the house which Shadworth's will intended for use by the rector, or with its successor, built shortly after a fire in 1485.¹⁴ The site of the parsonage house is indicated in two plots of land south of the church which were surveyed and drawn up after the Fire.¹⁵ Albeit "destroyed" in the Fire, there is no way of determining the actual extent of the damage inflicted upon the structure of the church. The parish burial records, available from 1670, show that interments continued to take place both in the churchyard and within the church itself from that date until, and even *during*, the Wren reconstruction of 1682–83.¹⁶ The implication here seems to be that the medieval floor and possible substructures, at the very least, remained intact, and that the construction of the new church more or less from ground-level involved a minimal interference with them. There is no specific reference to any vaults, new or old, in the plans and information relating to Wren's operations, but it seems that much destruction of the medieval church remains would have occurred in the course of burial removal activities in 1897–1898.

From 1670 to 1853 a very considerable number of burials were accommodated both in the churchyard and within the church. Such exact locations as the burial registers provide refer to the aisles, the chancel and choir, the great and (or?) common vault (? the west vault) and the rector's and Crispe vault (apparently at the east end of the aisles) and make it clear that virtually the whole available floor space was utilized. Shortage of space was apparent as early as 1740 when the rector and church wardens applied for, ¹⁷and received, a faculty to clear the main vault and to make way for intact burials and for future interments.¹⁸ This was achieved by knocking a hole through the brick wall of the vault through which the bones of "several ancient and decayed bodies"—possibly pre-Fire burials disturbed by Wren's works—could be disposed, thereby making use of space below the nave at a level lower than the interments previously effected from the church floor. These problems and expedients were to have drastic consequences a century and a half later. In September, 1896, an examination of the damaged flooring of the church disclosed a number of human remains. The City officer of health reported to the Home Secretary that the church was in an unsanitary condition, and an Order in Council was issued for the removal of the bodies to Woking.¹⁹ Bishop Creighton's faculty, permitting such a removal, shows that between 150 and 200 bodies were found in the large vault at the west end of the church, and authorized the filling-up of other places of burial under the church with clean, dry earth or other dry materials, and the relaying of the floor upon a bed of concrete.²⁰

According to the incumbent, the Rev. C. L. Engström, the whole of the church, except the vaults, was thereby excavated in 1897–98 to about 16 ft, to which depth some "470 cases of coffins and human remains", many pre-1666 were removed. Charred fragments

of wood from an "ancient edifice" were unearthed, together with several thick walls of stone rubble which were utilized to support the new floor of the church. The earth was duly sifted and covered with a thick layer of cement concrete,²⁴ traces of which were observed during the present excavation. These operations effectively destroyed the archaeological evidence lying below the central section of the church between the east and west vaults, to a depth which must approximate to the level of the medieval wall footings, and no additional notes or sketches which may have been made at the time appear to have survived.

REFERENCES

- ¹ *Historical MSS Commission*, 9th Report, 23b. A deed relating to the parish of St. Peter the Less, and attested by Richard, priest of St. Mildred's. Of the two St. Mildreds in the City the Bread Street church was the closer.
- ² E.g., *Cartulary of St. Bartholomew's Hospital*, ed. N. J. Kerling (London, 1973) Nos. 753 (c. 1186); 860 (c. 1200); 750 (1216); *Cartulary of Holy Trinity Aldgate*, ed. G. A. J. Hodgett (London Record Society, 7) (1971) Nos. 596, 1018 (1239-54).
- ³ *Monasticon Anglicanum*, ed. Bandinel Caley and Ellis, vi (i) (London, 1828) 170.
- ⁴ *Butler's Lives of the Saints*, ed. H. Thurston and D. Attwater (London, 1956) iii, 91; cf. C. L. Engström, *St. Mildred's Church, Bread Street, E.C.* (London, 1898).
- ⁵ Engström, *art. cit.*, 7-8.
- ⁶ *Regesta Regum Anglonormannorum*, ii, ed. C. Johnson and H. A. Cronne (Oxford, 1956) No. 1177.
- ⁷ *Survey of London*, ed. C. L. Kingsford (Oxford, 1971) i. 347-48.
- ⁸ Corporation of London Record Office, Husting Roll, 159 (11).
- ⁹ *Ibid.*, 156 (21).
- ¹⁰ Greater London Council Record Office, Harben Bequest Deeds (1600-1700), C47, 20 January, 1682; St. Mildred Vestry Minutes (Guildhall Library Ms. 3469/1), f.21r.
- ¹¹ G.L.C. Record Office, *ibid.*, C17. Indenture of Sale, Sawyer to Sambroke, 22 March, 1672.
- ¹² *Royal Commission on Historical Monuments, London*, iv (London 1929) 5, 135.
- ¹³ *Ibid.*, 2, 91, 97, 120, 135; W. F. Grimes, *The Excavation of Roman and Medieval London* (London, 1968) 205.
- ¹⁴ Stow, *op. cit.*, 348.
- ¹⁵ Oliver & Mills, *Survey of Building Sites... after... 1666*, v. (London Topographical Society) (London, 1962) (55v); iv, 84.
- ¹⁶ *The Parish registers of St. Mildred Bread Street*, ed. W. B. Bannerman, *Harleian Society* (Register Section 42) (London, 1912) sub annis.
- ¹⁷ Vestry Minutes, *ibid.*, f.300r, 12 February, 1740.
- ¹⁸ Diocese of London, Vicar General's Act Book (Guildhall Library, Ms 9532/5), f.133v.
- ¹⁹ C. L. Engström, *op. cit.*, 7-8; Vestry Minutes, 17 March, 1897 (Ms 3469/4).
- ²⁰ Vicar General's Act Book (Ms. 9532/18, 252-55), 15 December, 1897.
- ²¹ Engström, *loc. cit.*; Philip Norman in *St. Paul's Ecclesiological Society* (1912-17) 155, and Charles Welch, "Recent Discoveries in City Churches...", *Trans. London and Middlesex Archaeol. Soc.*, N.S. 2 (1911-13) 148-51.

THE FINDS

BY MICHAEL RHODES

with contributions by Don Bramwell, Juliet Clutton-Brock, G. B. Dannell, Joan Liversidge and Margaret Wood and notes supplied by B. R. Hartley, Peter Marsden, Ralph Merrifield and David Moore.

INTRODUCTION:

The finds from St. Mildred's Church were excavated under very difficult conditions and consequently the percentage of finds recovered must be fairly low. Whilst most of the stratified finds are described, a few have been excluded, notably some highly corroded Saxon nails (?) and bones from layers of redeposited material. The finds from Pit 6 were carefully collected and are all included.

This report is divided into two main sections dealing with the Roman and post-Roman periods. Every individually described object or pot-sherd is given a *Catalogue Number*, these also being used in the illustrations. The deposits from which the finds come are referred to by letters and numbers, indicating sections and layers as published in the site report. A Museum of London Group accession number, prefixed by the letters E.R. is given with the Context Number of each group of finds. *Accession Numbers* for individual finds are also given, these being in two parts, the first half being the E.R. number of the group to which each belongs.

The finds are now in the Museum of London.

ROMAN

Pottery (excluding samian) by Margaret Wood.

Although less in quantity than the unstratified material from this site, the Romano-British and imported pottery from stratified contexts includes a variety of fabrics, frequently represented by body-sherds alone. In these circumstances, a discussion of only those items capable of illustration would be unrepresentative. The

report text, therefore, includes many descriptions in which only the fabric of an individual vessel has been discussed, insufficient sherds surviving to indicate form, let alone to provide even a partial profile. The paucity of sherds providing information on form and decoration has also made it perilous to suggest close dating for the pottery-groups from any of the stratified contexts, but it is probable that all fall within the first century A.D. On the basis of fabric-representation, it would likewise be imprudent to attempt to establish the chronological relationships between the pottery-groups. Several fabrics occur in most of the stratified groups, but sherd quantities for all contexts—except perhaps for Pit 6 of Period 3—are insufficient for the absences of certain fabrics from particular groups to be regarded as of any reliable significance.

With the exception of sherds representing flagons and mortaria from the several production centres making up the "Verulamium region", sources for even the most common—the "reduced sandy" and "reduced pimply"—fabrics among the stratified material are not yet known. Because of the quantitative limitations of the pottery groups, it is impossible to place any significance on the absence of material attributable to the kilns in Highgate Wood.

(For much helpful advice and information thanks are due to Mrs. Joanna Bird, Miss Valery Rigby, Miss Pamela Clarke of the Department of the Environment, and Mr. Peter Marsden of the Department of Urban Archaeology, Museum of London. Mr. Hugh Chapman of the Museum of London was an indefatigable guide to relevant material in the former Guildhall Museum's collections. Mrs. Sue Heaser drew the pottery and made many helpful suggestions and observations.)

FIG. 10, 1-37:

Pit. 1: E.R. 1394 (Period 1)

From this context came only three sherds, none capable of illustration. Three fabrics are represented, all consistent with a first century date.

1. Rim sherd of lid, diameter c. 280 mm, in a reduced, slightly micaceous, pimply fabric containing copious dark, soft, grits and traces of fibrous matter.
2. Undecorated body sherd, probably from a flagon, in hard, pale pink fabric with small inclusions of quartz and minute grey grits. The external surface is covered with a thin, off-white slip, slightly micaceous.
3. Body sherd of amphora in hard, buff fabric, slightly micaceous, with plentiful inclusions of quartzite and hard, dark, rounded grits. An import from Spain.

Section J-K, Upper Clay Dump: E.R. 1374 (Period 2B)

The upper deposit of brickearth clay produced ten coarse-ware sherds and two fragments of *tegula*. No fabric is inconsistent with a first century A.D. date, although the platter sherd No. 6 may be the latest in this group.

4. Slightly everted rim sherd of small jar in fine, almost grit-free, reduced fabric containing traces of mica. Inner rim surface lightly burnished (Illustrated).
5. Single sherd in a very hard fabric containing inclusions of calcite and quartzite and small black and red grits. The core is pink, the surfaces light buff. The fabric may be from the Verulamium region, but is rather smoother than is usually the case with products of that area. Both surfaces are heavily grooved, the external surface roughly wiped. The wide, circular vent at the apex is crudely finished, its edge unsmoothed. The sherd is too small to provide a certain identification of the original form, but it may have been from a lid, or perhaps from an unguent jar, such as those from contexts of the early and mid-second century at Verulamium, amongst which occur examples with and without rims; cf. Frere (1972, 298, No. 476 and Fig. 113, No. 885) (Illustrated).
6. Single sherd giving a part-profile of a platter in a hard, sandy fabric, with pale grey core and grey-brown surfaces, very similar in texture to the reduced sandy fabrics among the material of Period 3 (Pit 6). The

internal surface is lightly burnished. The platter copies a Gallo-Belgic form; cf. Hawkes (1947, 222, form 24B) and Castle (1973, 93, No. 4). A date range of A.D. 70-95 has been suggested for this item (Illustrated).

7. Base sherd with footring, diameter 95 mm, perhaps from a flagon, in a hard, pink, sandy fabric with cream external surface. Verulamium region.
8. Base sherd only of mortarium in very similar fabric to that of No. 7 above. Verulamium region.
9. Body sherd probably from a flagon in a friable, cream fabric containing sparse, small, dark grits. The external surface is very smooth, possibly slipped: surface and fracture are identical in colour.
10. Small body sherd in fine, soft, orange fabric. A single, shallow, horizontal, V-shaped groove indicates that the sherd comes from the shoulder of what was probably a very small vessel, to judge from the curvature and thinness of the sherd, but there is no reliable indication of size.
11. Badly abraded sherd from a base of small diameter with a slight kick. The fabric is soft, easily scratched and micaceous, with sparse, quartzite inclusions. The core and internal surface are brownish-purple, the external surface black.
12. Undecorated body sherd in slightly micaceous fabric with sparse inclusions of quartzite and angular, dark grey grits. The core is grey, with red sub-surface margins and black surfaces, somewhat worn.
13. Undecorated body sherd in a reduced, slightly micaceous, pimply fabric with copious dark, angular grits.

Section C-D, Lower Clay Dump: E.R. 1375 (Period 2A)

This deposit contained eight coarse-ware sherds, representing eight vessels. There were five fragments of tile, two in red, three in buff fabrics, and two fragments of brick, one reused, apparently in hard-core, with mortar on all fractures and surfaces. Although forms were in some cases indeterminable, none of the fabrics was inconsistent with a first century A.D. date.

14. Base sherd in reduced, slightly micaceous, pimply fabric, rather underfired.
15. Sherd from flagon in hard, sandy, pale pink fabric with a thin trickle of white slip on the internal surface: externally, the slip has fired buff-yellow. Verulamium region. Heavy corrugations on the inner surface only occur also at Camulodunum (Hawkes, 1947, 246, 249, forms 161B and 167), and in a later context at Jewry Wall (Kenyon, 1948, 160-61, Fig. 13, No. 12) (Illustrated).
16. Sherd from flagon, in hard slightly sandy, off-white fabric. Verulamium region.

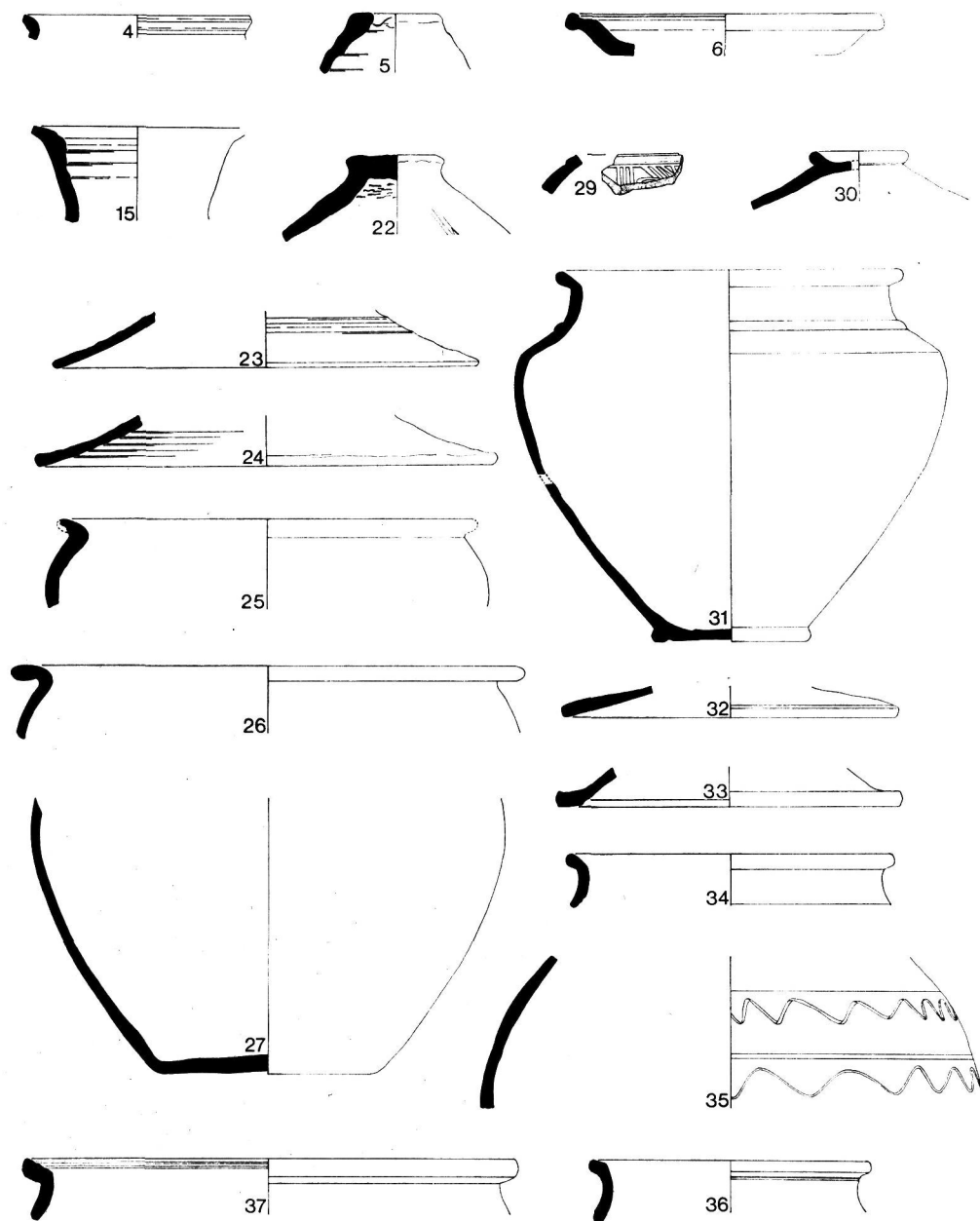


Fig. 10. St. Mildred's Church. Roman Pottery (1)

17. Undecorated body sherd in hard, pink fabric containing granules of quartzite and calcite, the latter having to some extent leached out, leaving surface vesicles.
18. Body sherd from offset shoulder of a flagon in fine, red, sandy, slightly micaceous fabric, its sparse gritting comprising both small, dark, granular inclusions and fragments of calcite. The external surface bears a heavily micaceous buff slip. This may be an import—no similar fabric and slip occur in other St. Mildred's contexts—but no source has yet been suggested.
19. Body sherd in fine, sandy, reduced, micaceous fabric with unevenly burnished external surface.
20. Badly damaged rim sherd of amphora in fine, friable, light buff fabric with wide V-shaped groove on external surface beneath rim. Internal rim diameter 120 mm.
21. Body sherd of unidentified, thin-walled vessel in smooth, buff fabric, with spalled internal surface. Part of one fracture appears to be a deliberately smoothed edge, but as the fabric is fairly soft, it is impossible to determine if the vessel wall could have been pierced before firing or subsequently.

Pit 6: E.R. 1384 (Period 3)

Reduced pimply fabric

Forty-three sherds represent eight lids and seven jars in a pimply, reduced, micaceous fabric, varying in density, but mostly soft enough to be scratched by a fingernail, and possibly unfired. Similar fabric occurs among the material from Periods I, II and IV at this site. No complete profile could be reconstructed. Three bases, represented by one sherd apiece, and three lids duplicate the items described.

22. Lid in thick, heavy fabric, with wide, flat knob, hollowed internally. Fissuring is visible on both surfaces of the knob (Illustrated).
23. Rim of lid with corrugated external surface (Illustrated).
24. Rim of lid, its fabric approaching a stoneware in hardness and density. The internal surface is heavily corrugated, the external surface less so (Illustrated).
25. Rim sherd of jar: the rim profile is damaged (Illustrated).
26. Rim sherd of jar: the upper surface of the rim is lightly burnished (Illustrated).
27. Profile from base to maximum girth of large jar. The base is slightly concave (Illustrated).
28. Rim of lid with slight external bead. The fabric is hard. The sherd is too small for the diameter to be estimated.

Reduced sandy fabric

Eighty sherds represent eleven jars and two lids. Eleven other unidentifiable vessels are represented only by undecorated body sherds. In most cases, the fabric is hard and slightly micaceous. Fractures show a mid- to light-grey core, with brown margins and dark grey surfaces. There are many parallels for both fabric and forms from first century contexts in the City of London.

29. Body sherds only of a cordoned jar with a panel of burnished lines above the shoulder (Illustrated).
30. Single sherd of lid with wide, externally-hollowed knob; cf. Hawkes (1947, Pl. LXXXV, 10) (Illustrated).
31. Cordoned, carinated jar with tall neck and everted, bevelled rim. The base has a small footing. The external surface of the body is evenly burnished from under the rim to below the maximum girth. The inner surface of the rim is also burnished (Illustrated). There are single sherds of three similar jars.

32. Single sherd of lid in very micaceous fabric with oxidized core and external surface (Illustrated).
33. Single sherd of lid with rim flattened and doubled back to form thick flange. For similar form, but not fabric, cf. Chapman (1973, 36, No. 222) (Illustrated).
34. Rim sherd of tall-necked jar with everted, bevelled rim. There is a trace of groove and cordon at the base of the neck. There is burnishing on the inner surface of the rim and outer surface of the neck. Part of the inner surface has laminated, perhaps due to salt action (Illustrated).
35. Sherds from maximum girth of large jar, decorated with alternate straight and wavy burnished lines (Illustrated).
36. Rim sherd of tall-necked jar with slightly squared, bevelled rim. The rim and external surface of the neck are burnished (Illustrated).
37. Rim sherds only of tall-necked jar. There are two concentric grooves on the inner surface of its everted, bevelled rim. The external surface of the neck and inner surface of the rim are slightly burnished. For similar form, cf. Chapman (1973, 30, No. 195), also Sheldon (1974, 51, No. 132 and 53, No. 157) (Illustrated).
38. Base and body sherds of jar. The base is flat with a single, shallow, concentric groove on the under-surface.

FIG. 11, 38–90:

Light-coloured sandy fabrics (Verulamium region)

Forty-five sherds represent two mortaria, two flagons, one small jar and seven other vessels (body sherds only) of unidentifiable form. Fabrics vary in fracture and surface colouration from greyish-white and creamy yellow to dull, light pink.

39. Handle and body sherds only of flagon in harsh, light grey fabric with slightly mottled buff/cream external surface.
40. Body sherds only of flagon. Fractures show pink core, thick white margin beneath creamy-yellow external surface, and white internal surface, coated in part with grey-buff slip.
41. Rim sherd, possibly of flagon, in harsh, cream fabric (Illustrated).
42. Mortarium in harsh, buff fabric, its surface colouration varying from buff to orange. The grit scatter includes chips of flint, quartzite, and particles of red grog. It has spread over the upper surface of the rim. The pouring-lip is incomplete (Illustrated).
43. Damaged rim sherd of mortarium in harsh, off-white fabric. The grit scatter is similar in composition to that of No. 42 above.

Amphorae

Thirty-four sherds represent five vessels, none capable of illustration.

44. Body and rod-handle sherds in friable, greyish-buff fabric, with inclusions of quartz and flint. Possibly an import from southern Spain.
45. Rim sherd in pink, slightly micaceous fabric with small brown and white grits.
46. Neck sherds in sandy fabric containing minute, dark grits: the core and external surface are pink, the internal surface buff.
47. Single body sherd in smooth, buff fabric, with small, dark grits. Thin, off-white slip on external surface.
48. Unslipped sherd in similar fabric to No. 45, buff-grey in colour.

White-slipped red fabrics

Thirteen sherds represent six vessels, all probably flagons. Three items, represented by single body-sherds, duplicate the fabrics described.

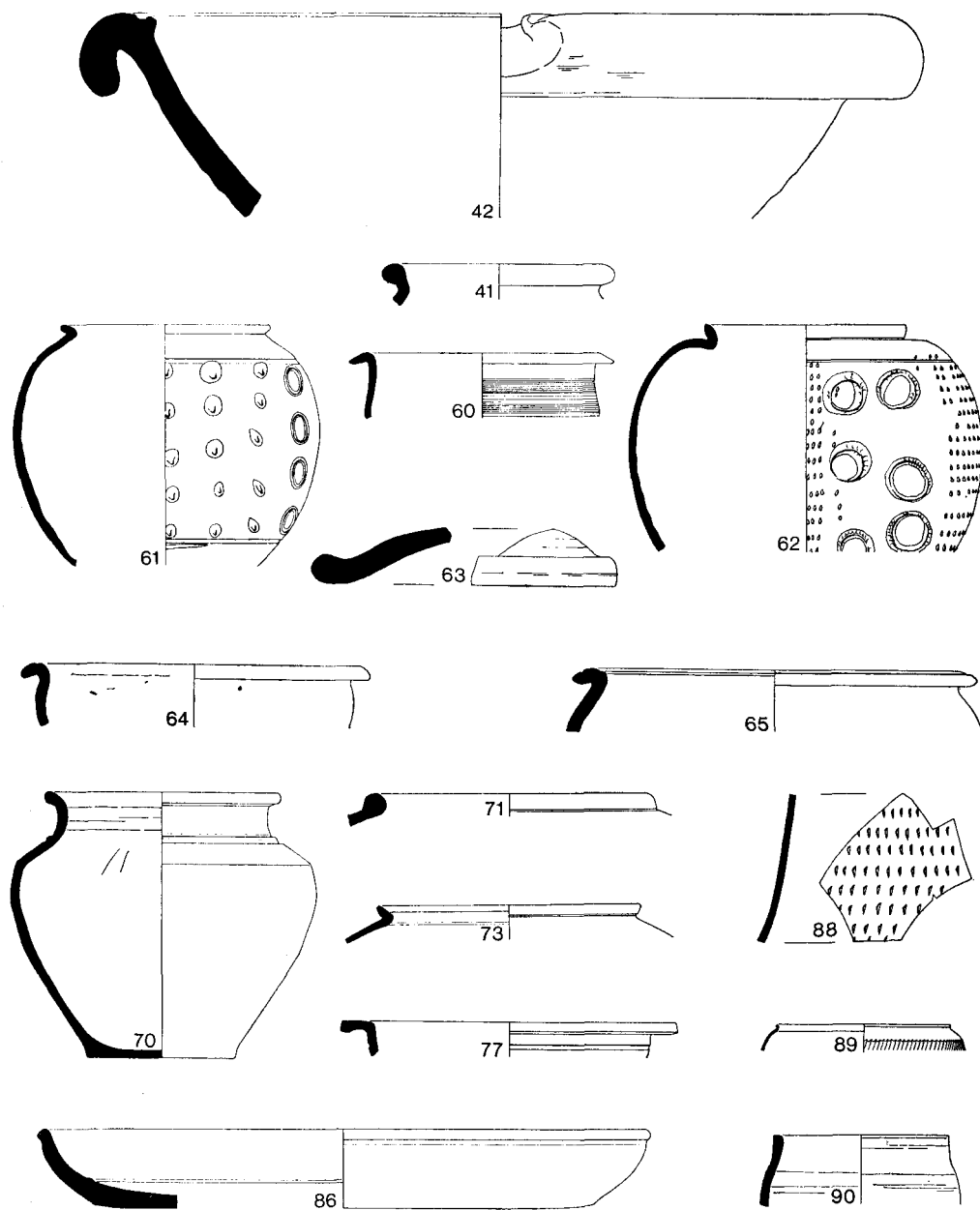


Fig. 11. St. Mildred's Church. Roman Pottery ($\frac{1}{4}$)

49. Base sherds of flagon with ringfoot. The red-brown fabric is fine, slightly micaceous, and almost grit-free. The slip is thick.
50. Body sherds of flagon in fine, soft, micaceous, buff-red fabric containing sparse particles of grog. The slip is thin and uneven.
51. Body sherd of a thick-walled and therefore, perhaps, large flagon in thick, orange-red fabric, with heavy internal grooving, and roughly-finished external surface. Even, cream slip.

Other fabrics

52. Abraded body sherd of beaker in soft, cream fabric, externally rough-cast beneath an uneven, brown colour-coat, applied thinly to the internal surface also. Colchester; cf. Hawkes (1947, 235, form 94B, 283-84, 10 and 11).
53. Body-herd, possibly from shoulder of small beaker, in fine, soft, micaceous, cream fabric, with three, narrow, incised, V-shaped, parallel grooves on the external surface.
54. Shoulder sherd from small, globular beaker in hard, off-white fabric containing minute, dark grits. The external surface is partly coated in off-white slip.
55. Single body-herd from folded beaker in smooth, hard, grey, micaceous fabric.
56. Body sherd of small flagon in fine, micaceous, red fabric, with sparse grits, some of which have leached out, leaving surface vesicles. There are traces of mica-dusting on the external surface.
- 57, 58, 59. Undecorated body sherds of three vessels in soft, reduced, micaceous fabrics, varying from brown to grey in fracture, but with grey surfaces.
60. Rim sherd of small, carinated bowl in very hard, dark grey fabric with slightly pimply surfaces. It is difficult to find a parallel in a first century context for the "beak-like" rim form, but close external rilling occurs on cooking-pots from mid-first century contexts (Period III) at Camulodunum. Similar decoration, but on a finer fabric, occurs in a Trajanic context at Toppings Wharf; see Sheldon (1974, 49, No. 88); cf. also Hawkes (1947, 270, form 260A and 260B) (Illustrated).
61. Barbotine-decorated, globular beaker in micaceous, red fabric with unevenly burnished external surface. The decoration is in cream slip. Examples of barbotine in similar large, conical pellets were found at the Walbrook site, City of London (information from Mrs. Joanna Bird) (Illustrated).
62. Barbotine-decorated, globular beaker in slightly micaceous, creamy-buff fabric containing inclusions of flint: these are mostly small, but some exceptionally large fragments have pierced the surfaces. The external surface is burnished and varies in colour from cream to orange-brown, as does the barbotine decoration. Alternating, vertical panels of trailed circles and thin, triangular pellets on beakers in similar light-coloured fabrics are known from other first-century contexts in the City of London, e.g. Barclays Bank site, Lombard Street, and London Assurance Co. site, near St. Swithin's Lane (the Museum of London), E.R. 775 and 170). Similar motifs are also used on an example from a context of A.D. 60-75 at Verulamium; see Frere (1972, 275, No. 130); also Sheldon (1974, 58, No. 216) (Illustrated).
63. Rim sherd of large lid in harsh, red, micaceous fabric with small, calcite and quartzite inclusions, angular dark grits and particles of red grog. The external surface is coated with a thin red-buff slip. An Italian or Rhenish origin has been suggested for this item (Illustrated).
64. Rim sherd of hook rim bowl in very hard, pimply fabric, with dark grey core and surfaces. There is a shallow, incised groove near the inner edge of the rim (Illustrated).

Pit 5: E.R. 1386 (Period 3)

A total of ten sherds from this context represented five vessels. Building material was represented by two fragments of tile and one of brick in red fabric, and two fragments of tile in buff fabric.

65. Rim sherd only of jar in very hard, reduced, pimply, slightly micaceous fabric. The surfaces are oxidized mid-brown. There are two concentric grooves on the convex upper surface of the rim (Illustrated).
66. Body sherd only in reduced, pimply fabric, slightly micaceous, with uneven oxidation of the external surface.
67. Base sherds only of flagon on small footing, in a hard, sandy, cream fabric, slipped on both surfaces. The external surface is unevenly burnished over bands of "grit-drag" caused by paring of the surface before firing. Verulamium region.
68. Body sherd of amphora in pink fabric with inclusions of quartz and dark grits. Buff, internal slip: off-white external slip. Possibly a Spanish import.
69. Body sherd in micaceous, red fabric containing red grog, small, dark grits and many minute inclusions of calcite, in some cases leached out. The external surface is coated with slightly micaceous, buff slip. Possibly a Rhenish or Italian import, the fabric resembling that of No. 63.

Section F-G, Layer 17: E.R. 1373 (Period 4)

This context produced forty-six sherds representing seventeen vessels: of the four main fabric types none is inconsistent with a first-century date.

Red sandy fabric

70. Tall-necked, carinated jar with faceted cordon at base of neck. The fabric is micaceous, with brown core and reduced surfaces. Paring of the surface before firing has left bands of "grit-drag", subsequently smoothed by the burnishing which covers two-thirds of the external surface and the upper surface of the rim (Illustrated).
71. Rim sherd of bead-rim jar in slightly micaceous fabric with pale grey core and dark grey surfaces. The rim and external surface are burnished (Illustrated).
72. Body sherd from above the shoulder of a jar in slightly micaceous fabric, with pale grey core and mid-grey surfaces. There is a single, narrow, horizontal burnished line.

Red smooth fabric

73. Rim sherd of small, thin-walled jar in smooth, brown, micaceous fabric with sparse inclusions of red grog and reduced surfaces. There is a narrow groove on the inner surface of the rim. Both the rim and the external surface are burnished (Illustrated).
- 74, 75, 76. Body sherds of three other vessels are in similar fabric with external surface burnishing.

Reduced pimply fabric

77. Rim sherd of bowl in very hard fabric, with brown core and reduced surfaces. There are two shallow, concentric grooves on the upper surface of the rim, and a deeper groove below the rim on the external surface of the body (Illustrated).
78. Body sherd in hard fabric with black internal surface and unevenly reduced external surface. There are finger-indentations on the internal surface.
79. Body sherd from neck and shoulder of jar in reduced fabric with light grey core and mid-grey surfaces. There is a slight cordon at the base of the neck.

White-slipped red fabrics

80. Body sherd from large flagon in sandy fabric with abraded, thin, cream slip.
81. Body sherd of flagon in smooth, orange-red fabric with inclusions of calcite and sparse, minute, dark grits. Buff internal surface. Thin, white slip.
82. Body sherd in soft, friable, micaceous fabric with thick buff slip.
83. Body sherd in hard, smooth, red fabric with sparse, minute, dark grits. There are irregular, narrow grooves on the external surface beneath an even coat of off-white slip.
84. Body sherd in hard, smooth, slightly micaceous fabric with grey core and red internal surface (possibly slipped). The external surface and margin beneath are red under a thick, cream slip. A sherd in the same fabric without external slip may be from the same vessel.
85. Base sherd of dish in "Pompeian Red" ware. Fabric, slip, basal diameter and decoration are identical with, and the sherd may well be from the same vessel as, the unstratified rim sherd No. 86 described below.

Unstratified pottery: E.R. 1372

86. Rim sherd of dish in "Pompeian Red" ware, a dark grey, fairly hard, sandy fabric, slightly micaceous. The external surface is almost black, and the internal surface bears a thick, red slip, itself also slightly micaceous. Both surfaces are burnished. The internal surface bears a deep groove, rounded in section, above the external angle, and a pair of lightly-incised, concentric grooves about 50 mm smaller in diameter. The source of this dish is unknown: "Pompeian Red" ware was manufactured in Gaul, Italy, and in Britain,

- near Peterborough at the Longthorpe kilns, whose fabric tended to be brown with a red slip (Illustrated).
87. Rim sherd of flagon in pinkish-red, slightly micaceous fabric with inclusions of calcite and small, dark grits, very similar to the fabric of No. 69 (Period 3, Pit 5). There is a very thin slip, white on the rim and pink on the interior surface. This is possibly also an import from a Rhenish or Italian source.
88. Body sherds of a thin-walled vessel, possibly a small flagon in very hard, pale pink fabric with very small, sparse, white grits. Both surfaces are very smooth, possibly slipped. The external surface is rouletted. This is probably an import from Gaul (Illustrated).
89. Rim of small thin-walled jar in very hard, off-white fabric with thin, white slip on external surface and inside rim. Like No. 88 above, this is probably an import from Gaul; cf. Wheeler (1936, 175 and Pl. LV A) (Illustrated).
90. Rim sherd of dish in sandy fabric with dark grey core, brown sub-surface margins and dark grey-brown slipped and burnished surfaces. There is a single line of lightly-incised meander on the external surface. Gillam (1970, Type 328) in BB2 (second century), and Frere (1972, 338, No. 1005) are similar forms; cf. also Tatton-Brown (1974, 173, No. 335) (Illustrated).
91. Sherds from the neck and shoulder possibly of a ring-necked flagon in hard, coarse, pink, sandy fabric. There is a lightly-faceted cordon at the base of the neck. Possibly Verulamium region.
92. Rim sherd of vessel in very hard, creamy-buff fabric, with traces of thin, cream slip on external surface.

SAMIAN

BY G. B. DANNELL, F.S.A.

The numbers given indicate the number of vessels represented. All the sherds have a source in South Gaul.

*FIG. 12, 93-95:**Section C-D, Lower Clay Dump: E.R. 1375*

- Drag 29, one, c. A.D. 50-65.
93. Drag 29, one. Upper zone: straight wreath with sessile leaves. An exactly similar wreath is on a vessel at the Museum of London (Pryce, 1928, 87, No. 34), c. A.D. 40-55 (Illustrated).

Pit 5: E.R. 1385

- Drag 18, one, first century.

Pit 6: E.R. 1384

- Drag 18, one, pre-Flavian.
- Drag 18, one, Flavian.
- Drag 27, one, probably Flavian.
94. Drag 29, one. Upper zone: arrow-head. Lower zone: alternate St. Andrew's Cross motif and three-ringed medallion, containing a griffin o. 881. Probably by the PASSIENS workshop; the arrow-heads are on a 29 from Mainz (Knorr, 1919, Taf. 64F), the slightly smudged striated rod is detail 17 (Knorr, 1919, Taf. 62), and the griffin is on a 29 from Mainz (Knorr, 1952, Taf. 48) and a 37 from Fishbourne (Cunliffe, 1971, 279, 20), c. A.D. 70-85 (Illustrated).

Unstratified: E.R. 1372

- Drag 15/17, one, pre-Flavian.
- Drag 15/17, two, probably pre-Flavian.
- Drag 15/17R, one, probably pre-Flavian.
- Drag 18, one, probably pre-Flavian.
95. Drag 18, one, stamp. JIS : B.R. Hartley, F.S.A., writes: SILVINIF (SILVINVS i 8a) SILVINVS i was Neronian-Flavian (unless plural). This stamp crops up at the Gloucester fortress/colonia Nijmegen (Ulpia Noviomagus cemetery) and Caerleon fortress, c. A.D. 65-80 (Illustrated).
- Drag 18, one,
- Drag 18?, one, Flavian?
- Drag 27, two, probably pre-Flavian.
- Drag 27?, one, pre-Flavian.
- Drag 29, one, first century.
- Drag 35, one, Flavian?
- Drag 35/36, one, first century.
- Chip, one, first century.

PAINTED WALL-PLASTER

BY JOAN LIVERSIDGE

This small collection of wall-painting consists of unstratified finds (E.R. 1372) and various other fragments from Section F-G, Layer 17 (E.R. 1373), a layer of brickearth brought in to level the site after the demolition of the Flavian building. These are, therefore, also considered to be unstratified, and it may not be assumed that they come from the same room or even the same area. The collection may be divided into three main categories:

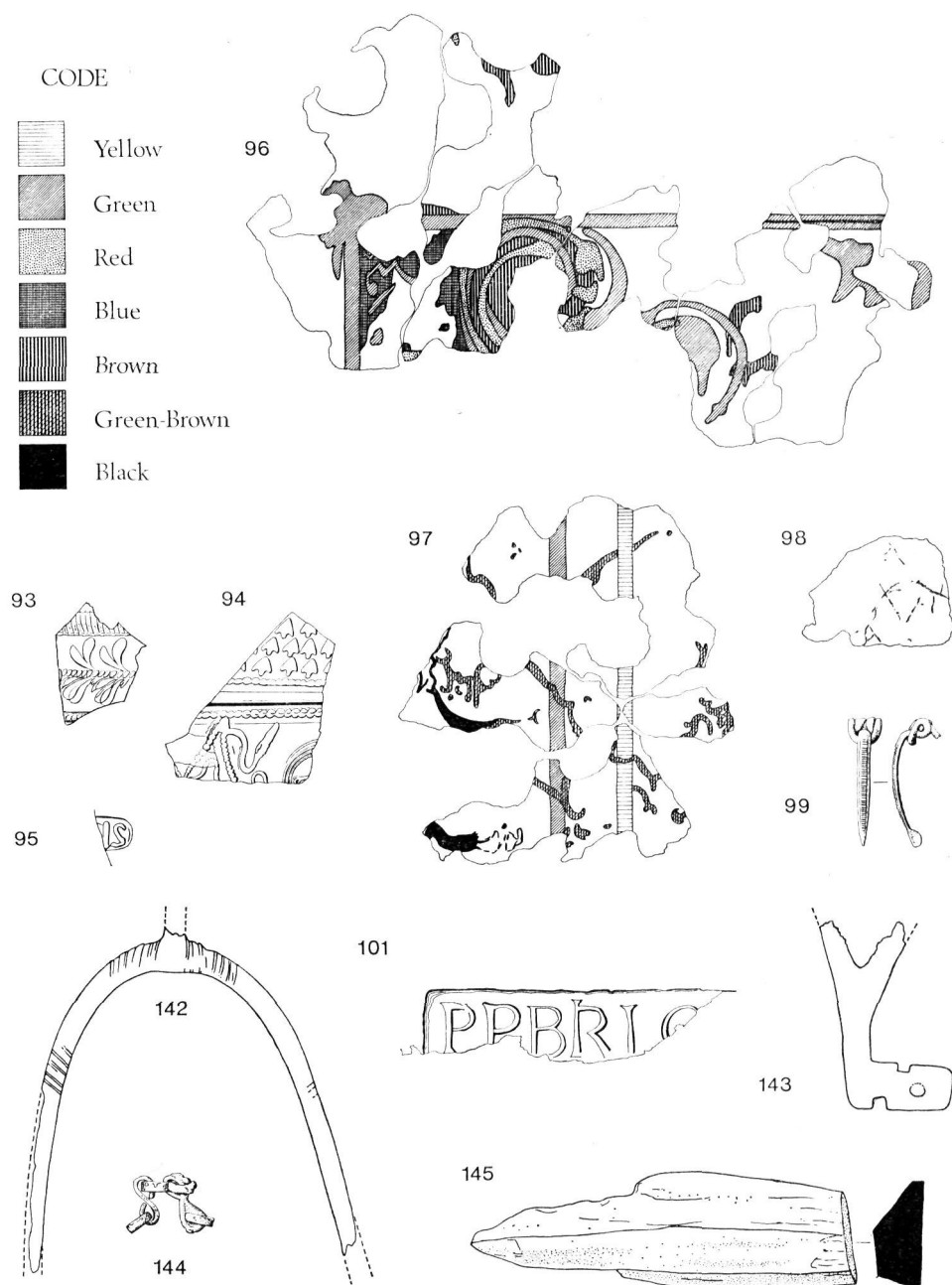


Fig. 12. St. Mildred's Church. Samian 93-95 ($\frac{1}{2}$) Roman Wall Plaster 96-98 ($\frac{1}{3}$) Other finds ($\frac{1}{2}$)

Fig. 12, 96-98

- i. Stippled and striped material which probably came from the lower parts of one or more walls. Two pieces have dark red, pale green and yellow spots and splotches painted on a pale pink ground. Several more have larger red blotches on white, and these may be associated with red bands. One such fragment may come from a red, vertical stripe at the corner of a room. This decoration is typical of the areas of imitation marbling, often split up into rectangles by bands of solid colour, normally used for the lower levels of the walls. Similar stippled material in purple on white may be associated with black lines and stripes.
- ii. A small amount of painted plaster which may come from higher up the walls and probably forms part of some panel decoration. It has survived badly, partly because it has been gashed with pock-marks intended to make a layer of later Roman plaster adhere firmly. Nevertheless, this later plaster has broken away, bringing with it much of the earlier white surface. Several pieces of this plaster form part of a design which may belong to the inner framework of a panel where two fine green lines meet at right angles. From this corner may spring a foliate scroll design of green leaves painted partly over blue-green, but mostly on a white ground. Red flowers painted on white with traces of brown and black also occur, perhaps leaves and stalks (96, Fig. 12, 1373/38). Too little survives to allow us to do more than speculate as to whether

we have here part of a swag, but panels decorated in this way are known from other British sites, e.g. Davey (1972, Fig. 8) and Liversidge (1971, Pl. XXVII, XXVIII).

Other fragments include yellow and green lines painted on white (97, Fig. 12, 1373/39). Faint traces of a design can just be discerned, possibly a black scroll with leaves and stalks in greenish-brown; cf. Drack (1950, Fig. 118).

From the later period of redecoration come a few pieces of plain white painted on a thin layer of plaster of a finer consistency, and roughened on the back to key into the holes gashed into the earlier material. Traces of the white paint of the earlier period are also faintly visible.

- iii. The typical bright Roman red plaster of which there are only a few pieces. One such fragment is bordered by a white line 80 mm wide, more red for 40 mm and then green 800 mm wide, possibly edged with black. This could be part of a panel framework and it is possible that it belongs to the later period of category ii. One small piece of plain red has a grafitto (98, Fig. 12, 1372/40), thought by Miss J. Reynolds (whom I should like to thank for her help) to be a roughly-formed A EM. Another fragment is painted green over yellow next to black, and should possibly be associated with one piece of yellow coarsely stippled in white, black and green.

UNSTRATIFIED FINDS

FIG. 12, 99-101:

99. (1372/20). A small one-piece bronze brooch with a four-turn spring and a low-curved tapering bar having transverse grooving as well as grooves down both sides. The pin and part of the catchplate are missing. A Nauheim derivative of the first century, probably Claudio-Neronian. Somewhat similar brooches with the unusual transverse grooving have been found at Fishbourne, see Cunliffe (1971, 100-2) (Illustrated).
100. (1372/30). Coin: identified by Ralph Merrifield as a dupondius of Vespasian (R.I.C. 744), A.D. 72-73, Mint of Lugdunum.
O IMP. CAESAR VESPASIAN AUG. COS. III
Radiate bust of Vespasian r.
R SECVR [ITAS AUGUSTI]
S.C. Securitas seated r. resting head on right hand in front altar and torch.

101. (1377/29). Stamped tile: Peter Marsden comments: The stamp P P BRI LO(N) on this red brick is part of a series of Roman brick stamps only found in London. Other examples from this or a very similar die are in the Museum of London collection (Museum accession numbers 2177, 2176, 2178, E.R. 1121) from unspecified sites in the City. Another, also probably from the same die, has been found on the Dyers Arms site in Cannon Street in a deposit which probably dates it to the Flavian period (E.R. 1121). The significance of these tile stamps has been discussed by Ralph Merrifield and others (Merrifield, 1969, 72), and the general interpretation is that it refers to the Procurator of the Province of Britain in London who officially issued the bricks and tiles. Residual, from post-hole 9 (Illustrated).

SAXON AND MEDIEVAL

POTTERY:

There are in all twelve groups of stratified post-Roman pottery from the excavations beneath St. Mildred's Church. These are not only interesting in that they contain unusual types, but are also of considerable importance in the first instance because they come from deposits dated with a fair degree of certainty to before the construction of the late twelfth century church and also because it seems probable that most of the groups date from before the Norman Conquest. Unfortunately, the circumstances of the excavation means that there is a possibility of contamination.

The sherds, which number fifty altogether, are in general rather small, and it is quite difficult to tell whether some of them are Saxon or Roman, particularly as over one half of the total number of pieces of pottery from the post-Roman deposits are residual Roman sherds. Most are from different pots and are of different forms and fabrics which means that it is not possible to establish any seriation even though some of the groups are from a sequence of deposits. Because of the dissimilarity between the sherds, they have been catalogued according to the deposits from which they were recovered and not according to their fabric, form or probable age. Munsell colour-names have been used to describe the fabric colours.

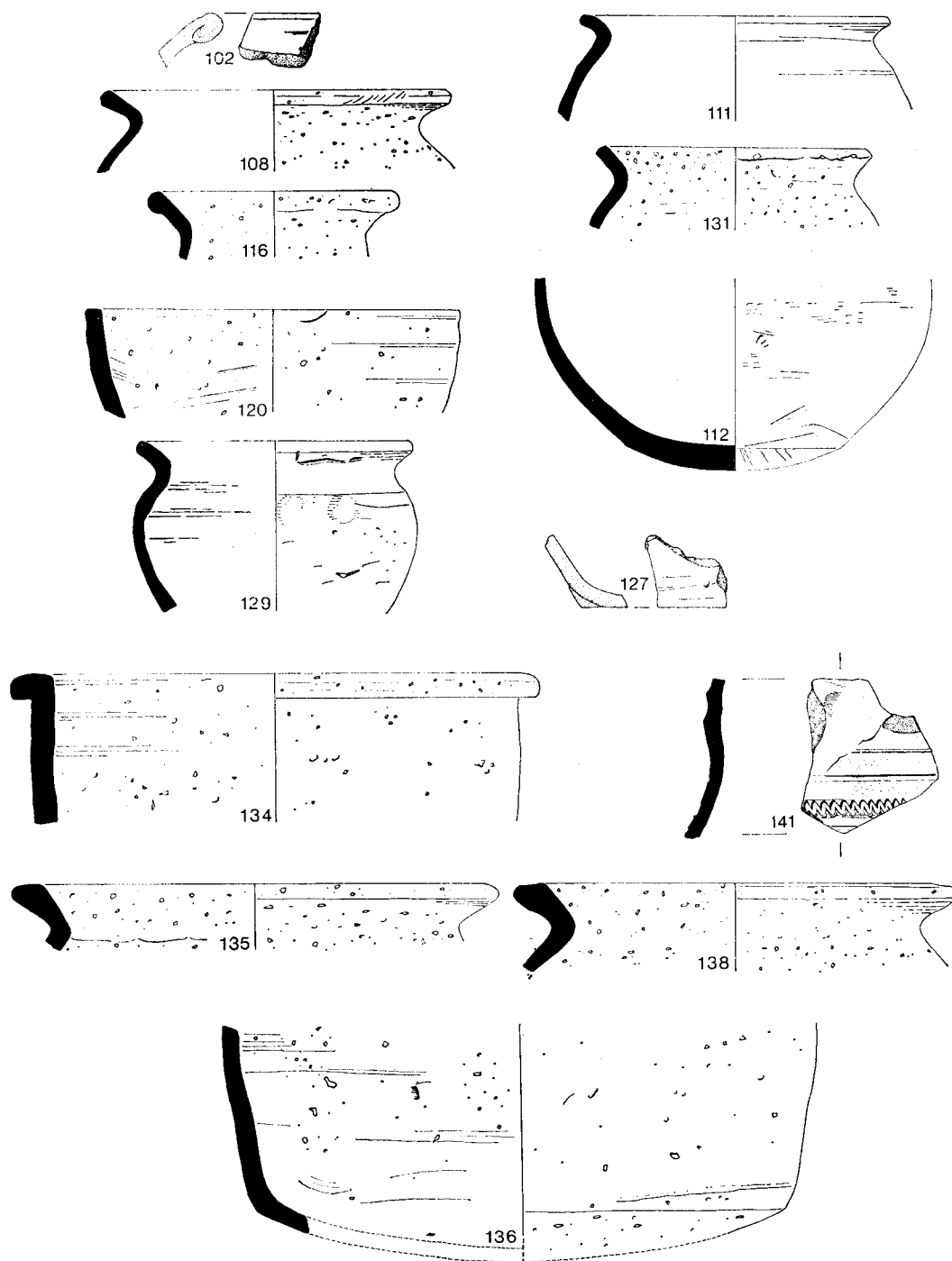


Fig. 13. St. Mildred's Church. Post-Roman Pottery ($\frac{1}{3}$)

At the end of the description of each group a broad dating is given but these are by no means certain and indeed cannot be at the present time due to a severe shortage of comparative material from London which can be definitely dated to before the Norman era. There are, however, quite a few groups which can be dated by imported continental pottery to the decades immediately after the Conquest and it is highly significant that none of the common fabrics and forms of this period are represented among the sherds from St. Mildreds (reference is here made mainly to Norman cooking pots in grey sandy or black, reduced shell gritted fabrics, some with high shoulders and everted finger-impressed rims, see Chapman (1973, 40-41), to red-painted wares, see Dunning (1959, 73-78) and to yellow-glazed Stamford wares).

Only two sherds (Nos. 102 and 120) have been ascribed to the Middle-Saxon period, but some of the others may well belong with them. Although they have been dated on rather insubstantial typological evidence it is gratifying to find that No. 102 comes from one of the earliest post-Roman deposits on the site. They both have very unusual forms, are both hand-made and have received a final wiping before firing. Both have similarities with sherds from Maxey but these may be coincidental.

Nine groups have been ascribed to the Late Saxon period and several of the fabric types represented here have been found elsewhere in London. Of these the most easily recognizable types are the hard, orange-brown to brown sand-tempered fabrics represented here by Nos. 106, 125 and 127. These fabrics are also represented in three groups recovered from pits apparently pre-dating the Church of St. Nicholas Acon which was in existence by 1084, see Marsden (1967, 218-20). About one half of the fabrics represented are sand-tempered, the other half being tempered with shell, usually by itself but with the addition of crushed flint in Nos. 103 and 104 and probably with fragments of chalk in No. 131.

Most of the body-sherds appear to be hand-made although five of the seven rims (Nos. 108, 111, 129, 130 and 132) have wide internal grooves and regular smoothing lines on the rim. It is, therefore, suggested that these pots were formed by hand and were later transferred to turntables in order to form more regular rims than could be achieved by hand-moulding by the "slow-wheel" method. This technique of manufacture is consistent with a late Saxon date. All the rims are everted, of small diameter, and very simple, and all the bases, with the exception of Nos. 112 and 123, are of the sagging variety.

The presence of vessels in the same type of fabric in Pit 15 and Pit 7 with rims of the same shape and formed in the same manner, the strangely-shaped base from Pit 15 (No. 112) and the possibility of wasters in both deposits suggests that these two pits may be contemporaneous and raises the possibility that the pots represented within them were made by an inexperienced potter somewhere in the immediate area.

Only one group (from Pit 16) is consigned to after the Norman Conquest. Its twelfth century dating does, however, raise the problem of why there should be an intermission of up to one hundred years in the material evidence.

(The writer would like to express his thanks to the following for their help during the preparation of this report: Mr. J. Cherry, Mr. J. Haslam, Mrs. R. Huggins, Mr. J. G. Hurst and Miss Margaret Wood.)

FIG. 13, 102-41:

Pottery Associated with the Construction of the Saxon Hut.
Posthole 3: E.R. 1393

102. Rim sherd from a hand-made vessel, possibly a bowl, having an inturned rim. The internal beading was formed by folding the top of the clay wall inwards. Wipe-marks on the outside indicate the pot was probably finished with a damp cloth before it was fired. The fabric, which is hard-fired and lightly tempered with quartz grits, is of a purply orange-brown colour turning to grey in parts and shows some similarity to the Maxey class G fabrics, see Addyman (1964), although it lacks the white inclusions (Illustrated).

This is one of the earliest post-Roman sherds in the collection and was probably deposited in the posthole at the time of the building of the hut. Probably Middle Saxon.

Pottery associated with the infill of the Hut-Pit.

Posthole 9: E.R. 1379

103. A small sherd from a hand-made vessel smoothed on the outer surface by a final wiping. A hard, brown-grey fabric with surfaces of dull red-brown to black

tempered with crushed shell and flint. A similar sherd comes from St. Nicholas Acon, E.R. 893.

104. A small sherd from the basal angle of a cooking-pot in a somewhat similar fabric to No. 103, but with more orangey surfaces and apparently from a much better made vessel.

This group also contains seven sherds of residual Roman pottery. Probably Late Saxon.

Section L-M, Layer 4: E.R. 1378

105. A small sherd from the basal angle of a cooking-pot with a sagging base. Hard, grey fabric, heavily shell-tempered.

This group also contains two sherds of residual Roman pottery. Probably Late Saxon.

Section L-M, Layer 2: E.R. 1376

106. A small sherd from the basal angle of a well-formed cooking-pot with a sagging base. Inside are two diagonal finger impressions which must have been formed by the potter's right hand. A hard, purple-brown fabric burnt black on the outside and heavily tempered with quartz sand. A sherd in a similar fabric comes from the St. Nicholas Acon site (E.R. 878) and is firmly dated to the middle of the eleventh century.

107. A rather flat sherd probably from the base of a vessel in a similar fabric to No. 105. Shows the marks of a final wiping before firing on both sides.

This group also contains eight sherds of residual Roman pottery. It post-dates all the groups so far described and on the basis of No. 106 is probably Late Saxon.

Pottery from a layer overlying the Hut-Pit.

Section L-M, Layer 1: E.R. 1390

108. Rim sherd of a well-made cooking-pot with a sharply everted rim thickening towards the top. Orange pink to purple brown fabric with a grey core in parts and tempered with crushed shell and flint. Surfaces show that the vessel was probably finished on a turntable (Illustrated).
109. Two sherds of a hand-made pot in a dark grey fabric with surfaces of purply orange to brown and grey, so heavily filled with coarse quartz sand that the sherds are extremely crumbly and may even be from a waster.
110. One small sherd in a dense grey fabric with light crushed-shell tempering.
- This group also contains four sherds of residual Roman pottery. Probably Late Saxon.

Pottery from two pre-Church cesspits.

Pit 15: E.R. 1380

111. Rim of a well-formed cooking-pot with a simple everted tapering rim. On the shoulder is slight ridge which probably formed between the potters first and second finger when, turning the pot on a turntable, he pressed the top outwards over his first finger to form the rim. The rims of Nos. 129 and 130 have been formed in exactly the same manner. The fabric is hard, tempered with fine quartz sand and brown-grey to black in colour. Fissures along the edges of the sherd may indicate that the pot was damaged during firing, or may be due to salt action. Two other sherds of this fabric are probably from the same vessel (Illustrated).
112. The lower part of a hand-made cooking-pot with rounded body and a small sagging base in a similar fabric to No. 108. Grit-drag on the outside and wipe marks on the inside indicate that the pot was given a final wiping. A large fissure down the side of the pot and smaller fissures visible along the broken edges indicate that the vessel was damaged during firing and therefore may never have been used. Three other small sherds are probably from the same vessel (Illustrated).
113. One sherd in a hard, sandy fabric, fired pink, blue and green with partially vitrified broken edges. Probably from a waster.
114. Three sherds probably from one hand-made vessel in a light brown fabric fired grey in parts, with a heavy filling of crushed shell. The inside surfaces show the marks of a final wiping whilst the outside surface is very rough.
115. One small sherd in a very hard dark-grey fabric containing flecks of mica, tempered with quartz sand and some quartz grit. Possibly Roman.
- Twenty residual Roman sherds were also found with this group. Probably Late Saxon.

Pit 17: E.R. 1381

116. Small rim sherd of hand-made vessel with an everted rim thickening into a rough beading at the top. A hard, light-brown fabric fired grey in parts with a filling of finely crushed shell (Illustrated).

117. Sherd from the base of a cooking-pot with a slightly sagging base which thickens towards the centre. A hard orange-brown fabric containing flecks of mica with a dark brown core and dark grey surfaces. Lightly tempered with sand. Grit drag is visible on the underside of the base indicating a final wiping and fingermarks are visible on the inside of the basal angle.
118. One small sherd in a fairly soft dark-grey fabric with a light orange-brown surface heavily tempered with crushed shell.
119. One small sherd in a sandy purple-brown fabric with dark brown-grey surfaces. Possibly Roman.
- This group also includes seven sherds of residual Roman pottery. Probably Late Saxon.

Finds from Pits around the periphery of the site.

Pit 8: E.R. 1386

120. Rim sherd of a hand-made bowl (?) with a flat rim slightly thinned at the top. Orange-pink to purple-brown surfaces with a grey core in parts tempered with crushed shell and flint. Both surfaces show wipe marks. This is of a similar shape to a sherd excavated at Maxey (Addyman, 1964, Fig. 14, No. 35). Their fabrics are also similar in that they are both hard and tempered with finely crushed shell, but their colours and textures are different. Addyman cautiously suggests that Danish settlement may be the reason for the occurrence of this and other associated unusual forms (Illustrated).
- This context also contained seven sherds of residual Roman pottery. Probably Middle Saxon.

Pit 14: E.R. 1383

121. Two sherds probably from the same vessel. A soft, mid-grey fabric with a darker outside surface, a light pinky brown inside surface and tempered with very finely crushed fossil? shell. A similar fabric has been found at Thetford (sherd in type-series of British Museum Dept. Medieval and Later Antiquities, registration number 1955 4-2 12). Probably of a St. Neots type.
122. One small sherd in a similar fabric to No. 105 with wide grooves on the inside indicating that it was partially formed on a turntable.
123. One sherd from the base of a flat-based vessel. A hard, grey fabric with surfaces of pinky orange to blue and dark grey, tempered with a scatter of fine quartz grits. Tiny flecks of mica can be seen on the surfaces and soft black spots on the broken edges suggest organic inclusions. Possibly Roman.
124. One base sherd in a dark grey fabric with a light yellow-brown to grey outer surface which has been worn or rubbed smooth after firing. Minute flecks of mica can be seen on the surfaces.
125. One sherd from the basal angle of a cooking-pot. Wide, uneven, horizontal grooves on the inside indicate that the pot may have been finished on a turntable. Hard, light-grey core with greyish-brown inner surface and a smooth outer surface fired light red to dark grey. Tempered with fine quartz sand. Similar types come from one of the dated deposits from St. Nicholas Acon (E.R. 893) and also from E.R. 878.
126. One sherd in a hard, brown-grey to very dark grey fabric and a grey to light grey inner surface tempered with fine quartz sand. Possibly Roman.
- This group also contains three residual Roman sherds. From a context stratigraphically later than Section L-M, Layer 4, and probably also Late Saxon.

Pit 21: E.R. 1387

127. One base sherd from a flat-based vessel. It appears that at some stage in its manufacture a coil of clay was smoothed onto the outside of the pot at the basal angle to give it extra stability. A hard, grey fabric, fired red to dark grey on the outside with quartz sand tempering. Sherds of similar fabric came from a dated group from St. Nicholas Acon (E.R. 893) (Illustrated).

128. One sherd in a hard, grey to black fabric with a light grey inner surface and tempered with quartz sand. Similar sherds come from likely Late-Saxon groups from the Dyers Arms site, E.R. Nos. 1127 and 1205.

This group also contains three residual Roman sherds. Probably Late Saxon.

Pit 7: E.R. 1388

129. A small hand-made cooking-pot with a simple everted rim and a rounded body. Wide, uneven grooves on the inside suggest that the vessel was finished on a turntable and two finger marks on the shoulder indicate that the vessel was carried upside down whilst it was still soft. It is in a similar fabric to Nos. 111, 112 and 130 (Illustrated).

130. The rim of a similar vessel with a slightly wider diameter and a better-formed rim.

131. Rim sherd of a hand-made cooking-pot with a simple everted rim in a hard fabric tempered with crushed shell and probably also with chalk, which varies in colour between pink, light-brown and dark grey (Illustrated).

132. Rim sherd and one other sherd probably from the same basically hand-made vessel with a rim formed on a turntable. Both sherds are damaged either by salt activity or by a bad firing and may be from a waster. The fabric is hard, sand-tempered and of a pinky-brown colour, although in one place it is completely black as if the vessel were over-fired. The surfaces are pink to pinkish grey. The rim, although much damaged, appears to have been of a simple everted shape.

This group also contains two sherds of residual Roman pottery and what appears to be part of a medieval roof tile. There is, however, no other reason to suggest this is anything other than a stray, intrusive find and a Late Saxon date for the pottery would seem probable.

Pit 10: E.R. 1389

133. One small sherd of a hand-made vessel in a light-grey fabric with orange-brown surfaces tempered with shell and crushed flint. The surfaces were smoothed with a damp cloth before firing. Middle or Late Saxon,

Pottery from a pit beneath the foundations of the early medieval church tower.

Pit 16: E.R. 1395

134. Rim of a wheel-turned, straight-sided bowl with an external flange. Blue-grey fabric with purple-brown surfaces and tempered with crushed shell. Carbon deposits on the outside indicate its use as a cooking-pot. Two somewhat similar bowls but in developed St. Neots ware have been found at Northolt Manor, see Hurst (1961, Fig. 66, 17 and 18), where they are dated by J. G. Hurst to between A.D. 1050 and 1150 (Illustrated).

135. Rim sherd from a wheel-turned cooking-pot in a similar fabric to No. 134 (Illustrated).

136. Base from a wheel-turned cooking-pot with a sagging base in a similar fabric to No. 134 (Illustrated).

137. Body sherd from a cooking-pot in a similar fabric to No. 134. Broad grooves which have been partially smoothed out can be seen on the inside, suggesting perhaps that the body of this vessel was initially coil-built.

138. Rim sherd from a wheel-turned cooking-pot in a soft, brown-grey fabric with light orange-brown surfaces (Illustrated).

139. Sherd from the basal angle of a sagging base cooking-pot in a similar fabric to No. 138.

140. One sherd from a hand-made vessel in a fairly hard, dark grey fabric with dark orange-grey to orange-brown surfaces tempered with crushed shell. The surfaces received a final wiping probably with a cloth before the pot was fired.

141. One sherd from a glazed jug or pitcher from near the neck and upper handle (?) joint. The vessel was thrown and the "handle" luted onto the surface. There is decorative finger impression in the luted clay on the right of the "handle" and below this is a decorative band consisting of three grooves, the lower two of which border a wavy line incised with a blunt point. The fabric is hard, sandy and light grey to orange in colour with surfaces of pinkish grey. The glaze is light green, very sparse and patchy with grains of sand adhering to its surface.

Glazed pottery, apart from hard-fired continental imports and Stamford ware, does not seem to appear in London before the early twelfth century and as far as it is known no true jugs have been found dating prior to this time either.

Sixteen sherds of residual Roman pottery were found with this group. Probably early to mid-twelfth century (Illustrated).

CHARCOAL:

A small lens of charcoal (1376/34) was recovered from Section L-M, Layer 2, which is the top-most layer of infill in the hut-pit. In an attempt to establish a *terminus ante-quem* for the construction of the hut it was decided to obtain a radio-carbon date and a sample of the charcoal was sent to the Department of Geology, Birmingham University. The analysis, carried out by Professor F. W. Shotton, gave an age of A.D. 470 ± 100 , which is, unfortunately much earlier than expected as other evidence seems to indicate a late Saxon date for the in-filling. In conjunction with the fact that there was a preponderance of Roman over post-Roman sherds in this deposit, this evidence suggests that much earlier strata may have been disturbed and re-deposited in the disused hut-pit in order to level the site.

The late Roman or dark-age date might be of considerable interest if there were not a possibility that the charcoal was contaminated when this redeposition took place.

DAUB:

Fragments of "burnt daub" were found in Pits 7 (E.R. 1388) and 8 (E.R. 1386), which were sealed by the wall of Wren's church. All bear the impressions of twigs and branches, and appear to be of the local "brickearth". The pieces of daub from Pit 7 are rather larger than those from Pit 8 and bear the impressions of larger twigs and branches. They are of duller colour, are lighter in weight and some bear deep fissures due to heating. One fragment has a blistered and vitrified surface suggesting that they may be from an oven or some similar structure. Three pieces of daub from Pit 8 have flat surfaces of similar appearance to that which characterizes the underside of medieval floor tiles which have been laid on sand before firing. The reason for this is not clear.

IRON (Fig. 12, 142-43)

142. (1388/1). Prick-spur. Highly corroded with point and terminals missing. X-ray examination revealed a series of bands, radiographically denser than the corroded iron, apparently running around the body near the point and around at least one of the arms. It is thought that these may represent some kind of inlaid decoration. Conservators at the Museum of London noticed some fine, white powder when they tried to remove the corrosion in order to examine these features, but chemical tests failed to produce

positive results. The straight arms suggest a date prior to the middle of the twelfth century (see London Museum, 1965, 96). From Pit 7 and therefore probably Late Saxon (Illustrated from a radiograph).

143. (1395/33.1). Key, with part of loop-shaped bow missing. London Museum (1965, type 1A). Similar to a late twelfth century example from King John's House, Tollard Royal, London Museum (1965, 134). From Pit 16 which also indicates a twelfth century date (Illustrated from a radiograph).

OTHER FINDS (Fig. 12, 144-45):

144. Fig. 12 (1381/15) Chain: Five closed S-shaped links formed from flat strips of bronze. From Pit 17 and therefore probably Late Saxon.

145. Fig. 12 (1381/6) Hone: Medium sized, broken at both ends and one face and showing signs of a long usage. From Pit 17 and therefore probably Late Saxon. David Moore of the British Museum, Natural History Museum, makes the following comments on the rock: This is a purple, fine grained phyllite, with a well developed cleavage. Under the microscope the rock is seen to contain abundant quartz grains, small flakes

of white mica, and evenly distributed opaque grains of ore. This is a very low grade metamorphic rock of sedimentary origin which falls into Ellis's class 1B—the silty quartz phyllites (Ellis, 1969, 135-87). Such rocks are abundant in many low grade metamorphic sequences, and matches could probably be made with rocks from south-west England, Wales, the Ardennes, Brittany, Scotland and Norway. However, Mr. Ellis is of the opinion that this hone is likely to be from Eidsborg (Southern Norway), as similar types are found associated with the typical Eidsborg achists.

APPENDIX I: MAMMALIAN REMAINS

BY JULIET CLUTTON-BROCK

With the exception of one Roman cesspit, the mammalian remains all came from post-Roman rubbish pits. The date of the pits is uncertain but it is probably pre-Conquest.

The mammal bones are listed below under the pit headings. The only wild mammals that were represented were a few hare bones from the Roman pit and a worked section of red deer antler from Pit 15. There is no evidence for the presence of goat.

Pit 6: E.R. 1384 Roman cesspit

Domestic pig

Fragments of scapulae, metapodia, and tibiae, all from juvenile animals.

Domestic Ox

One right horizontal ramus with cheek teeth: length of cheek teeth row, 126.4 mm; length M_3 34.5 mm; width M_3 , 13.8 mm.

Limb bone fragments and ribs.

One complete calcaneum: greatest width, 32.8 mm; width tuber calcanei, 25.4 mm.

One complete phalanx I: length, 56.3 mm; proximal width, 29.3 mm.

Domestic sheep

Fragments from juvenile animals and 1 adult mandible.

Lepus sp. Hare

Two tibiae and 2 fragments of limb bones.

Pit 15: E.R. 1380. Late Saxon? cesspit

Domestic pig

3 skull fragments.

1 mandible fragment with unerupted M_3 .

2 scapulae, 1 fragment + 1 more complete; length of articular surface, 31.8 mm; width articular surface, 23.3 mm; height of neck, 21.5 mm.

1 humerus shaft.

1 proximal end of radius: proximal width, 25.2; shaft width, 14.5.

2 metapodial bones with distal epiphyses missing; juvenile.

1 complete femur; sub adult; length, 196.0 mm; proximal width, 52.5 mm; distal width, 42.3 mm; shaft width, 18.3 mm.

The surface of the shaft shows chopping marks.

Cervus elaphus, Red Deer

1 section of a tine, sawn through at both ends. The ring of antler is about 28 mm thick and has a diameter of approximately 45 mm. A very fine saw has been used and the cut surface is slightly polished. This was probably a waste piece left because the first cut was diagonal instead of straight through the antler.

Domestic Ox

Fragments of skull, limb bones, pelvis, ribs, vertebrae and scapular. One fragment of a pelvic bone has been chopped. This bone has also been gnawed, probably by a dog.

The bones that were complete enough for measurement are as follows:

Tibia, juvenile, proximal epiphysis missing: distal width, 56.6 mm; shaft width, 39.7 mm. Metatarsals (2), left and right from two individuals, small and probably from cows or possibly a cow and an ox (castrate). The larger metatarsal that could be from an ox has a slight overgrowth and widening of one of the distal articular condyles, resulting perhaps from the use of the animal for draught: length of bone, 190.0 mm; 203.0 mm; proximal width, 38.7 mm; 40.4 mm; distal width, 43.3 mm; 47.3 mm; shaft width, 23.5 mm; 24.3 mm. The smaller metatarsal has had a sliver of bone about 10 mm long shaved off its posterior surface; possibly this occurred during skinning of the carcass.

Phalanx I: length, 58.9 mm; proximal width, 25.2 mm.

Hoof core: length of sole, 33.6 mm; height of hoof core, 58.8 mm.

In addition, from this pit there was a small nearly complete horn core of an ox, of the "short-horn" type.

Domestic sheep

One bisected cranium of a large animal possibly a ram. The horn core had been removed from the skull.

Four horn cores, one nearly complete and 3 smaller ones which are only fragments. All these horn cores have been sawn or cut off the skulls.

Fragments of skulls, limb bones, and an atlas.

Humerus: distal width, 30.0 mm.

Radius: length, 156.4 mm; proximal width, 32.2 mm; distal width, 31.0 mm; shaft width, 17.6 mm.

Pit 17: E.R. 1381. Late Saxon? cesspit

Domestic pig

Fragments of limb bones, pelvic bone, and vertebra. Nearly all from juveniles.

Domestic Ox

Fragments of limb bones, pelvic bone, and vertebra. Mostly with chopping marks and evidence of butchery.

Radius: distal width, 73.1 mm.

CONCLUSION:

The remains of pig from St. Mildred's Church show that the animals were all small and not fully grown when they were killed. The sheep bones are more variable in type; there being one large horn core, probably from a ram, and several smaller ones that presumably came from ewes or wethers. All the sheep horn cores have been sawn or cut from the skulls. Both adult sheep and quite young lambs are represented.

The three cattle horn cores cover the three varieties in horn shape that are commonly found in Roman and post-Roman excavations. One is quite short and pointed similar to the small horn cores found on Iron Age sites, one is intermediate in length and the third is of the "long horn type", that is quite long and relatively straight, and the frontal bone attached to the core shows that the skull was relatively broad.

A large majority of the bones of cattle and sheep show evidence of butchery. This could have been associated with the use of bone for artefacts rather than for meat alone, suggested in particular by the longitudinal splitting of some of the bones, especially the metacarpal from Pit 7.

The sample of bones is not large enough to show any differences between the livestock represented in the Roman pit and those of the later periods. (The catalogue of these bones is held by the British Museum, Natural History Museum, Catalogue No. A.R.C. 1974 R. 5048-61.)

APPENDIX II: BIRD REMAINS

BY DON BRAMWELL

Pit 6: E.R. 1384. Roman

Domestic fowl, Gallus gallus

As is usual from Roman occupation sites, there are remains of domestic chicken of differing breeds, the commonest being a bird of a small, light variety, by

Domestic sheep

Fragments of horn core, skull, mandible, pelvic bone, and limb bones.

Humerus: distal width, 30.4 mm.

Femur: proximal width, 42.0 mm.

Pit 14: E.R. 1383. Late Saxon? rubbish-pit

Domestic pig

One scapula from a small pig, two vertebrae, one radius from a juvenile, one distal femur, and one small tusk.

Domestic Ox

One nearly complete, fairly large horn core of the "longhorn type". Fragments of scapula, rib, radius, tibia, and metatarsal; measurements as follows:

Radius (two individuals): proximal end, width, 72.4 mm; distal end, width, 66.1 mm.

Metatarsal: distal width, 45.4 mm.

Pit 7: E.R. 1388. Late Saxon? rubbish-pit

Domestic pig

Two fragments of mandible: length right M₃, 31.6 mm; width RM₃, 15.4 mm. One small tusk.

Fragments of humerus, radius, ulna, and pelvic bone; all from juveniles: distal width of humerus, 32.5 mm, shaft width, 14.5 mm; proximal width of radius, 27.3 mm, shaft width, 18.8 mm.

Domestic Ox

One horn core of intermediate length, probably from a cow or an ox.

One upper molar that has been burnt.

Fragments of mandible, atlas vertebra, rib, scapula, pelvic bone, and limb bones.

Measurements as follows:

Humerus: distal width, 80.6 mm, chopped through shaft.

Femur: proximal width, 126.6 mm. This bone has been burnt and chopped through vertically, so that only the anterior side is present. There is some exostosis of the bone around the epiphysis which is not fully fused. This may suggest that this animal was an ox that had been used for draught.

Tibia (2 individuals): proximal widths, 81.4 mm, 78.4 mm. The bone has been chopped through the shaft and the end is gnawed, probably by a dog.

Metacarpal: length, 165.1 mm. This bone has been split, by a chopper, longitudinally.

present-day standards. Five birds are represented, of which one bird is immature. There is also a very small tarsal bone of a cock Bantam which is about the smallest chicken specimen I have seen, from many collections.

Crane, *Grus grus*

This huge edible marsh bird is not unusual in sites from Roman to medieval times. It formerly nested in Britain and was also known as a winter visitor from mainland Europe. The carcase would probably weigh in the region of 30 lbs.

Pit 15: E.R. 1380. Late Saxon?

Domestic fowl

Only one certain and two possible bones. Fowl was commonly kept by the Saxons.

Sparrow hawk, *Accipiter nisus*

There are parts of the skeletons of two birds which I have tried to match up as far as possible. They both agree with the measurements for females which are the larger and more powerful of the sexes and so more in demand for the sport of hawking. I have no doubt that these two hawks had been so used. The chief parts missing from each skeleton are the tibiae and tarsals and it may be they had been removed from the carcases as souvenirs of two favourite birds.

Pit 17: E.R. 1381. Late Saxon?

Large duck, cf. *Anas platyrhynchos*, domestic variety

Part of a lower beak is thought to be large enough to belong to the domestic rather than the wild form.

Pigeon, *Columba* sp.

The tibia is difficult to determine as to species and could belong to small wood pigeon, rock dove or domestic pigeon. There would be only slight differences and it would be unwise to specify one or the other. In any case all three are widely used as food from Roman to medieval and later times.

Raven, *Corvus corax*

Raven bones are commonly found in Roman and later contexts. The birds may have been pets but are more likely, in my opinion, to have been killed for menacing domestic poultry chicks as these birds are great scavengers and were probably often present round human settlements.

BIBLIOGRAPHY

- ADDYMAN (1964), P. V. Addyman, "A dark-age settlement at Maxey, Northants", *Med. Arch.* 8 (1964) 20-73.
 CASTLE (1973), S. A. Castle and J. H. Warbis, "Excavations on Field 157, Brockley Hill (Sulloniaceae?) Middlesex, February-August 1968", *Trans. London and Middlesex Archaeol. Soc.* 24 (1973) 85-110.
 CHAPMAN (1973), H. Chapman and T. Johnson, "Excavations at Aldgate and Bush Lane House in the City of London, 1972", *Trans. London and Middlesex Archaeol. Soc.* 24 (1973) 1-73.

ACKNOWLEDGEMENTS

I should like to express my gratitude to the many people who helped with the work on the finds. Anne Clarke, Ann Edmondson and David Whipp made the catalogues and Alan Barnett, Antony Dufort and Sue Heaser prepared the illustrations. The metal finds were radiographed by John Price of the Department of the Environment and the conservation was carried out by Bill Rector, Joyce Andrews and Ann Edmondson of the Museum of London.

Thanks must also go to those who provided the specialist reports. They are Don Bramwell, Juliet Clutton-Brock of the British Museum, Natural History Museum, G. B. Dannell, B. R. Hartley, Joan Liversidge of the Cambridge University Museum of Archaeology and Ethnology, Peter Marsden of the Museum of London, Department of Urban Archaeology, Ralph Merrifield of the Museum of London, David Moore of the British Museum, Natural History Museum and Margaret Wood. The Carbon 14 analysis was kindly carried out by Prof. F. W. Shotton of the University of Birmingham.

The Society and the Editors are very grateful to the Department of the Environment and the Museum of London for grants towards the cost of publishing this report.

CUNLIFFE (1971), B. Cunliffe, *Excavations at Fishbourne* (Oxford, 1971).DAVEY (1972), N. Davey, "The Conservation of Romano-British Painted Plaster", *Britannia* III (1972) 251-68.DRACK (1950), W. Drack, *Die Römische Wandmalerei der Schweiz* (Basel, 1950).DUNNING (1959), G. C. Dunning, "Anglo-Saxon Pottery, a Symposium", *Medieval Archaeol.* 3 (1959), 31-78.ELLIS (1969), S. E. Ellis, "The Petrography and Provenance of Anglo-Saxon and Medieval English Honestones, with Notes on some Other Hones", *Bull. Brit. Mus. Nat. Hist.* MIN 2 (1969) 135-87.FRERE (1972), S. S. Frere, *Verulamium Excavations I* (Oxford, 1972).GILLAM (1970), J. P. Gillam, *Types of Roman Coarse Pottery Vessels in Northern Britain*, 3rd ed. (Newcastle upon Tyne, 1970).HAWKES (1947), C. F. C. Hawkes and M. R. Hull, *Camulodunum* (Oxford, 1947).HURST (1961), J. G. Hurst, "The Kitchen area of Northolt Manor", *Medieval Archaeol.* 5 (1961) 211-99.KENYON (1968), K. M. Kenyon, *Excavations at the Jewry Wall Site, Leicester* (Oxford, 1948).KNORR (1919), R. Knorr, *Töpfer und Fabriken verzierter Terra-sigillata des ersten Jahrhunderts* (Stuttgart, 1919).KNORR (1952), R. Knorr, *Terra-sigillata Gefäße des ersten Jahrhunderts mit Topfernamen* (Stuttgart, 1952).LIVERSIDGE (1971), Sieveking (Ed.), *Prehistoric and Roman Studies* (London, 1971).LONDON MUSEUM (1965), *Medieval Catalogue* (London Museum, 1965).MARSDEN (1967), P. V. Marsden, "Archaeological Finds in the City of London, 1963-64", *Trans. London and Middlesex Archaeol. Soc.* 21, pt. 3 (1967) 218-20.MERRIFIELD (1969), R. Merrifield, *Roman London* (London, 1969).PRYCE (1928), T. D. Pryce and F. Oswald, "Roman London, its initial occupation as evidenced by early types of Terra-Sigillata", *Archaeologia* 78 (1928) 73-110.SHELDON (1974), H. Sheldon, "Excavations at Toppings and Sun Wharves, Southwark, 1970-72", *Trans. London and Middlesex Archaeol. Soc.* 25 (1974) 1-116.TATTON-BROWN (1974), T. Tatton-Brown, "Excavations at the Customs House Site, City of London, 1973", *Trans. London and Middlesex Archaeol. Soc.* 25 (1974) 117-219.WHEELER (1936), R. E. M. Wheeler and T. V. Wheeler, *Verulamium, a Belgic and Two Roman Cities* (Oxford, 1936).

EXCAVATIONS ON THE SITE OF ARUNDEL HOUSE IN THE STRAND, W.C.2., IN 1972

MICHAEL J. HAMMERSON

SUMMARY:

The following article describes the findings of an excavation carried out in September 1972 on the site of the Medieval, Tudor and Renaissance palace of Bath Inn, later Arundel House. A trace of Roman, and a quantity of Saxon material were found. Structural fragments of the sixteenth and seventeenth century house survived, cut into levels containing material of the twelfth to sixteenth centuries. Two closely dated groups of pottery are described, one dateable to the third quarter of the sixteenth century and one to rather more than one hundred years later. Seven of the classical marble sculptures of the great seventeenth century Arundel collection were rediscovered and are fully reported on.

DISCOVERY OF THE SITE:

Within the area encompassed by Greater London outside the City, archaeological records, though sparse, indicate a wide spread of habitation of all periods. In 1972 the Society, conscious of the vast amount of unrecorded destruction occasioned by redevelopment within Greater London, formed an observation group to work within this area to keep a watch on building sites, to report their observations to the Society and, where necessary, to excavate. The excavation here recorded was the first to be carried out under the scheme, as a result of observations kept on the site of what is now the Arundel Great Court development, Strand, London WC2.

HISTORY OF THE SITE:¹

The site lies on the sloping ground which descends from the river-terrace now occupied by the Strand, 14.5 m above Ordnance Datum, to the Victoria Embankment at 4.5 m above O.D., prior to the building of which in the nineteenth century the site fronted and ran down to the shore of the River Thames. The structural remains on the site were dug into the river gravels (which in turn rested on the blue-grey London clay), which survived to a maximum thickness of approximately 2 m, and which had been removed entirely, by building operations of various periods, from the lower half of the site.

ROMAN SETTLEMENT:

The site is approximately 0.8 km east of Trafalgar Square and St. Giles' Circus, a similar distance west of New Bridge Street, following the line of the River Fleet, and approximately 0.55 km south of Holborn. Within this area a number of Roman finds have been recorded and to these may now be added the few from Arundel House, *i.e.* the sherd of pottery (Fig. 12: 10), the coin (coin report, No. 1), and a possible tile fragment. All came from medieval or later contexts and little useful comment can be made as to the actual date of their arrival at the site.

SAXON SETTLEMENT:

A quantity of eighth-ninth century Saxon pottery was recovered as debris from fifteenth and sixteenth century levels, and a "bun-shaped" clay loom-weight was recovered from the

late seventeenth–early eighteenth century dumping beneath Norfolk Street which post-dated the destruction of the palace. A discussion of the significance of the Saxon material from the Strand area will be found in the pottery report (p. 221).

THE PALACE PERIOD:

In 1232 the land was granted by the Bishop of London to the Bishops of Bath and Wells. The Palace built there, known as Bath Inn, had the largest site of all the Strand Palaces, with a river frontage of over 150 m, a depth of over 120 m and an area of 4–5 acres.

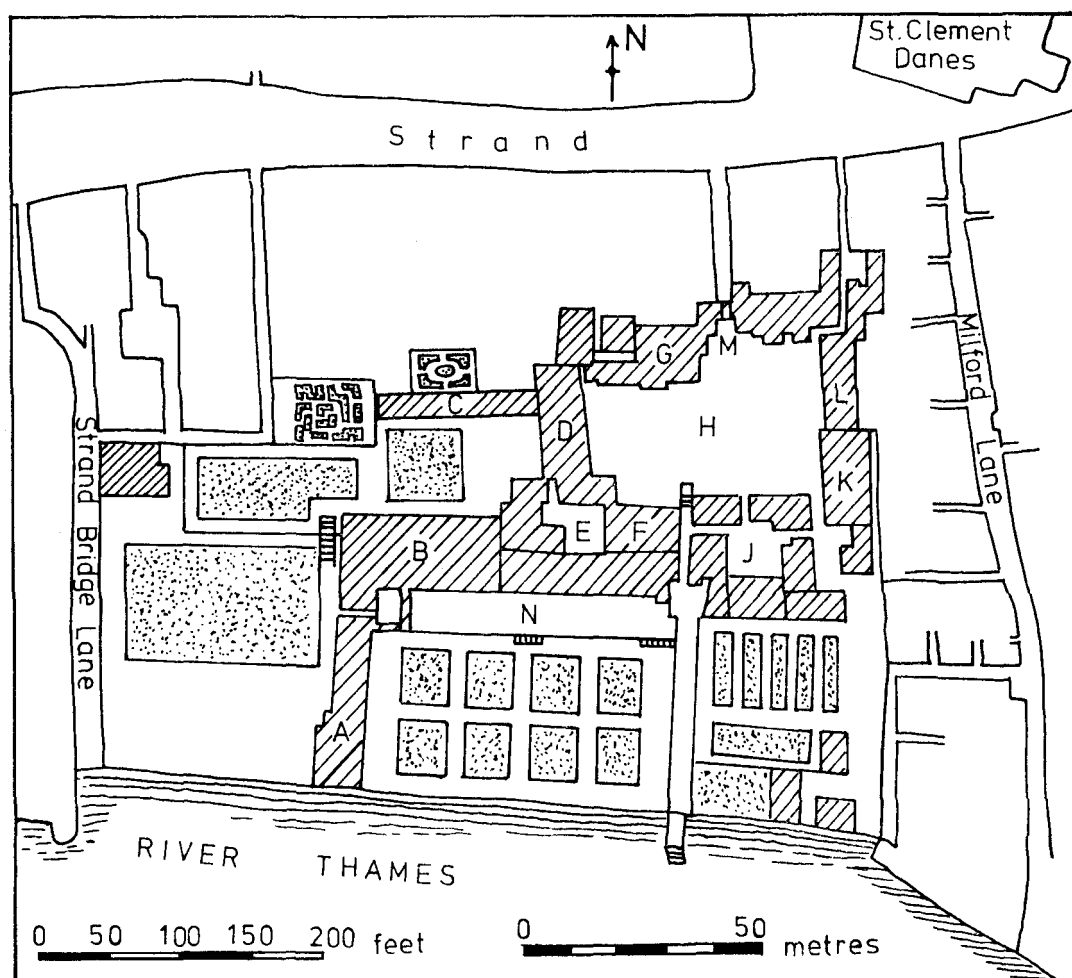
With the Reformation the palace was appropriated by Henry VIII and occupied by William, Earl of Southampton, Lord High Admiral, under whom it was known as Hampton Place. In 1545 the house was granted to Sir Thomas Seymour, who renamed it Seymour Place and largely rebuilt it. At the time that the Agas Map (Pl. 1) was surveyed, in about 1558, the crenellated east–west wing had already been added; the date of the building of the wing stretching to the river, later to be the Great Gallery, is not certain, but it was in existence by the time that John Norden's map of Westminster (Pl. 2) was published in 1593.

On Seymour's execution in 1549 the house was purchased by Henry Fitzalan, Earl of Arundel and, with the exception of a brief period, has remained in the possession of his descendants to the present day. In 1589 a survey of the building was made; this provides us with our main knowledge of it, and is examined in Kingsford's paper.² It was with the accession in 1607 of Thomas Howard, Earl of Arundel, Henry's great-grandson, that the house entered its greatest period, and became the home of the famous marbles which, with his paintings, were to form the first great art collection in England, comprising 37 statues, 128 busts, 250 inscribed marbles, sarcophagi, altars, gems and other fragments of ancient art. In addition the house and gardens were remodelled in the Italian style, the latter becoming the repository of many of the classical statues. Changes must have been necessary to provide a suitable setting for the collection, and Arundel's letters of 1618–19 mention works in progress.

Arundel died in Italy in 1646; the house was taken over by the Parliament and another survey undertaken. After the Restoration, the grandson of Earl Thomas was restored as Duke of Norfolk. Pepys, there in 1661, records the gardens with their flowers and statues, and "a blind dark cellar where we had two bottles of ale",³ possibly the same cellar the remains of which were found and are described below.

In 1667 the best of the marbles, now neglected and in many cases damaged, were donated to Oxford University. The house itself was in a serious state of disrepair, but plans for a new house, designed by Wren, were abandoned. It was demolished in 1680–82 and Morden and Lea's map of 1683⁴ shows a vacant plot. The gardens were retained for the building of the new Norfolk House and after the death of the owner, Lord Henry Howard, in 1684, the northern part of the site—that part north of what was later Howard Street—was redeveloped by Nicholas Barbon as good quality housing. Arundel Street and Surrey Street were now in existence, and when in the 1720s it was decided to redevelop the remainder of the site, the new Norfolk House, though a substantial building, was demolished, and its site redeveloped by 1734. The group of Delftware and Chinese porcelain described in the pottery report below is attributable to the early redevelopment period, *i.e.* 1680–1700.

Of the marbles that were not donated to Oxford, some were left on the garden terrace, where they were damaged during demolition work; others were left in the gardens, to become buried by building debris, and others were removed to Lambeth where Boydell





- | | |
|---|--|
| A - The Gallery | G - Storehouse |
| B - New West Wing | H - Entrance Court |
| C - Bowling Alley | J - Kitchen Court |
| D - Probable superstructure
of excavated vault | K - Stable |
| E - Courtyard | L - Barn |
| F - Hall | M - Main Entrance |
| | N - Garden Terrace |
|  Gardens |  Palace Buildings |

Fig. 1. Arundel House. The Palace buildings, based on Ogilby and Morgan's plan of 1677

Cuper, an old servant of the Howard family, had bought an inn set in ornamental gardens to be known in the next century as the famous Cuper's Gardens; the site now lies beneath the southern approach road to Waterloo Bridge. These mutilated specimens were illustrated by Aubrey and others;⁵ left in the open, they sustained even more damage and in 1717 were sold to residents of Buckinghamshire, where one was recently rediscovered.⁶

In this connection, mention should be made of the marble Roman tombstone with Greek inscription discovered in Drury Lane.⁷ It has long been doubted whether this is of Romano-British origin. Mr. Brian Cook, whose report on the Arundel Marbles appears below (p. 247), expressed the view that the architectural form of the tombstone and the position of the inscription suggest an eastern Mediterranean origin and that its importation as part of the Arundel or later collections was a strong possibility. Similar opinions have been expressed by other scholars about this and other marble *stelai* with Greek inscriptions found in Britain.⁸

THE LATER BUILDINGS (see plan, Fig. 1):

In the survey of 1589⁹ the house and garden were stated to cover 3.5 acres, and the dimensions given are: on the south, 522 ft; on the north, 612 ft; on the east, 335 ft; on the west, to the lane leading east from Strand Lane, 229 ft. The depth from the House proper to the Strand was about 100 ft.

The survey then went on to give details of the buildings and the repairs needed. Dimensions given are: Storehouse, 64 ft by 21 ft; lodging (north of the barn), 70 ft long; barn and stables, 135 ft by 20 ft; bakehouse and coalhouse, 90 ft long; storehouse on west side of the court, 105 ft long; the court itself was about 150 ft east-west and averaged 90 ft north-south; bowling alley, 138 ft by 18 ft; the kitchen court is next dealt with, and then a small paved court west of the Hall, with a vault in a cellar underneath (but see comments in excavation report of the cellar, below).

All these buildings needed repair, as they probably formed part of the original Bath Inn and were consequently old. The new additions are only briefly mentioned, and no dimensions are given; Hollar's view of 1656-66 (Pl. 3) shows them to comprise an L-shaped block extending westwards from the Hall about 200 ft and southwards to the river about 140 ft. The survey ends with a detailed description of the pipes and conduits for the supply of the house.

Kingsford illustrates Hollar's two views of the main courtyard made in 1646.¹⁰ Whilst these are described as, respectively, "facing north" and "facing south", these phrases have long been thought to refer to the prospect of the buildings themselves rather than to the observer's viewpoint; in the latter view the spires and other buildings in the background, obviously on higher ground, can only belong to buildings along, or north of, the Strand, whilst in the former view the low, distant horizon can only be of the low-lying area south of the river, and a hint of the river is seen between a gap in the courtyard buildings.

So far as concerns the buildings, Ogilby and Morgan's map of 1677 (Figs. 1, 2, superimposed on modern street plan) agrees generally with the survey and with earlier views. The bowling alley has disappeared and its site appears to be covered by houses and gardens, but it has here been included on Fig. 1 for purposes of location.

RELATION OF THE HOUSE TO LATER STREET LAYOUT (see Fig. 2):

Norfolk Street crossed the site of Arundel House towards the east end of the bowling alley and on the west of the buildings on the west side of the court, and Arundel Street marks the position of the gate-house and entrance. This left a large space to the east where

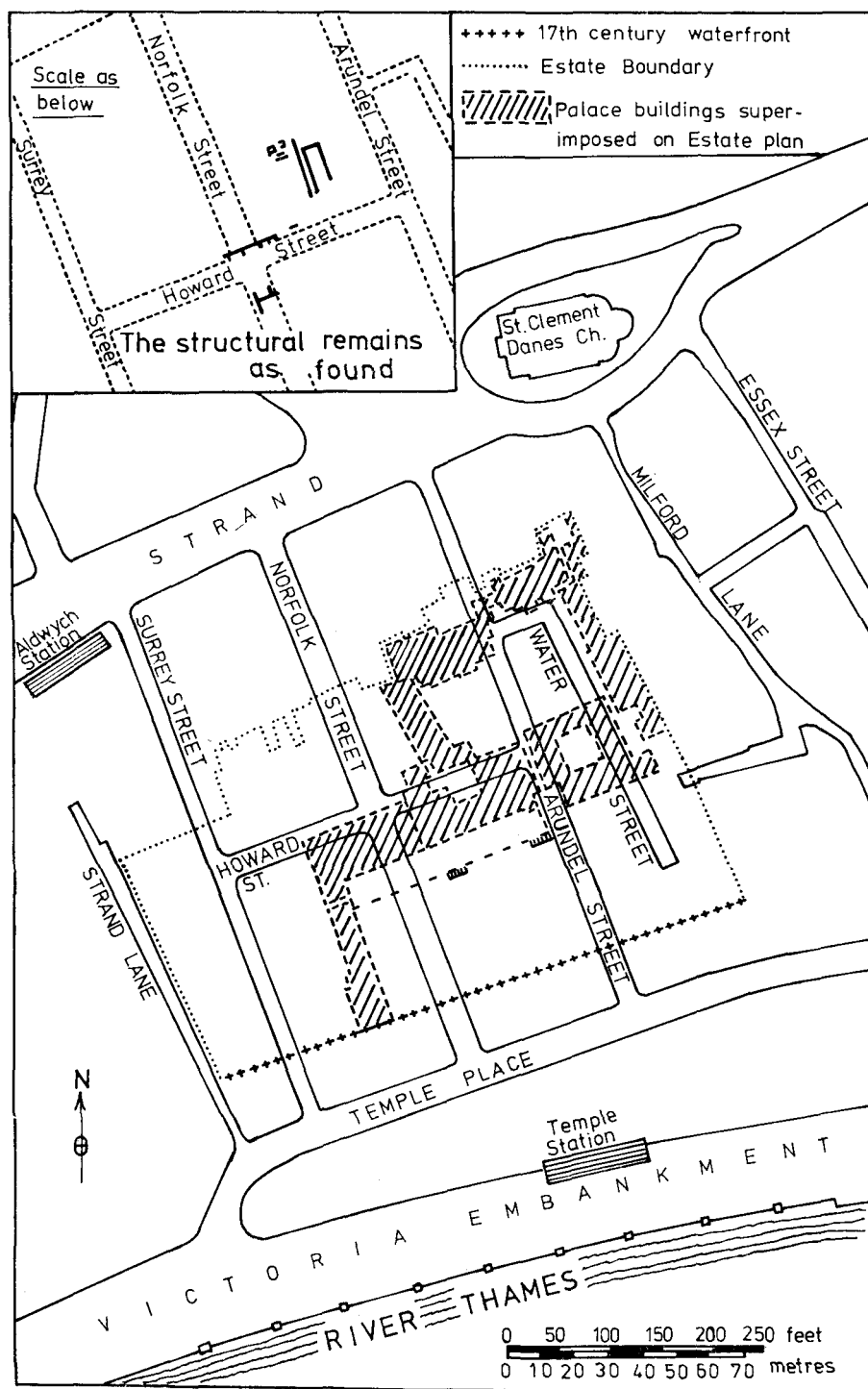


Fig. 2. Arundel House. Palace buildings superimposed on modern estate plan and (inset) location of structural remains found

Water Street was laid out; it marked the north-east corner and east side of the court, and in the 1920s the stables of Messrs W. H. Smith and Son stood there in part on the site of the stables of Bath Inn and Arundel House. The line of Howard Street seems to be on that of the galleries and hall. Strand Lane and Milford Lane still follow their ancient courses, though the former is now no more than a cul-de-sac. Two maps were useful in fixing the exact location of the palace buildings.¹¹ One, published by J. Thane in 1792¹² and, in effect, a reprint of Ogilby and Morgan's map, shows the house and estate boundary subsequent to the demolition of the bowling alley. The second map showed the same estate boundary superimposed on a modern street location map, and Fig. 2 is a superimposition of the two maps, which, in addition to fixing the position of the House, also show the positions of the old and modern river fronts.

It was discovered, however, that the structural remains revealed during excavations (Fig. 2 inset) do not, when superimposed on this plan, coincide exactly with the walls of buildings shown thereon. This discrepancy, though, is satisfactorily eliminated, and the structural remains consequently coincide with identifiable features, if the house-plan is plotted approximately 8 m north-east of the position shown, which suggests a slight error in the boundaries of the estate plan.

According to information from the contractors, a line of wooden piles was found near the southern end of the site and running parallel with it. This would have given valuable information as to the exact position of the seventeenth century river front. It was not possible to make an accurate record of their exact position.

EXTENT OF DESTRUCTION BY SUBSEQUENT BUILDING OPERATIONS:

The demolition of 1680–82, together with late Victorian redevelopment, resulted in very extensive destruction. Almost the only surviving remains, themselves in fragmentary condition, were found in an area of approximately 18 m by 26 m, located north-east of the junction of Howard Street and Norfolk Street. In addition, remains of substantial structures were found directly beneath the junction of Norfolk and Howard Streets, but these could only be observed during the process of their destruction. The 1972 site clearance works appear to have completely destroyed any remaining archaeological features on the site.

THE EXCAVATION OF THE STRUCTURAL REMAINS:

(Note: to avoid confusion, that the word "feature" is used below to describe remains in general, e.g. soil layers, pits, walls, etc—unless other descriptions are expressly used. Features are identified by numbers, those in the trench associated with the Tudor Cesspit being prefaced by the letter A.)

The structural remains discovered were, owing to seventeenth century and later disturbance, linked stratigraphically in very few instances, and no remains of the Bath Inn period survived. The Roman and Saxon finds came from medieval or later strata. With the exception of the chalk-built Tudor cesspit, no structural features were closely dateable by related finds, although those made suggest that the remaining structural features were of fifteenth or sixteenth century date.

THE TUDOR CESSPIT (Plate 4, Fig. 3: 1):

Not identifiable with any structure on the house plan, this appears to have virtually abutted the west side of the building to the west of the entrance courtyard, approximately 10 m south of its northern end. The closest-dated of the structures, it measured 2.50 m by 2 m externally, being chalk-built in random rubble walls 300 mm thick, and surviving for a height of 1 m. It contained a large group of pottery dateable to the third quarter of the sixteenth century (p.222 and Figs. 7–11) and fragments of Venetian lattimo glass goblets dated to the middle or later sixteenth century (Fig. 19: 1, 2).

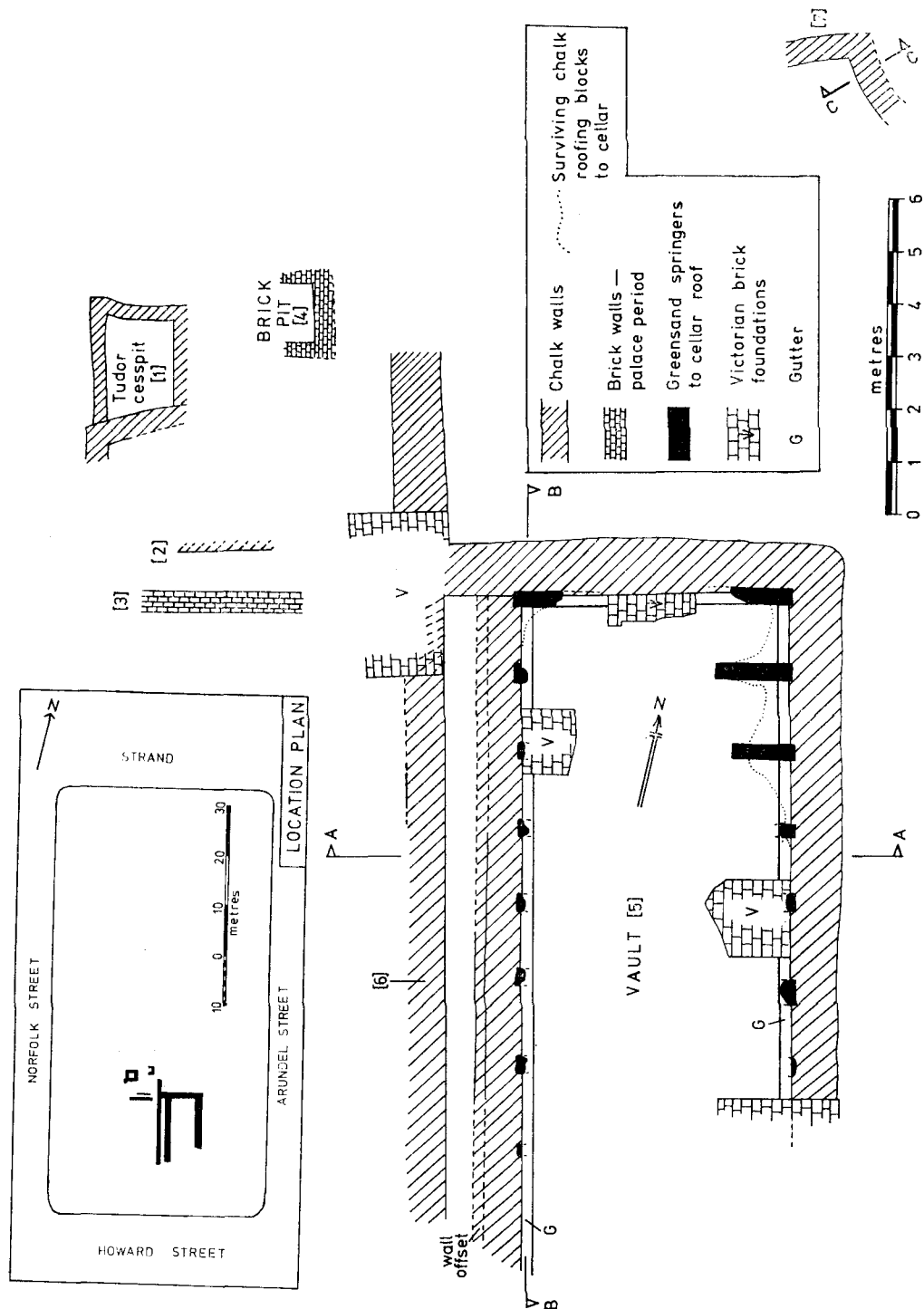


Fig. 3. Arundel House. Plan; The vault and associated remains

The pit rested on the natural gravel and was cut through features A-1 and A-6, soil levels later found to be identical (pottery, Fig. 12: 1-13) and feature A-7, below them and resting on the gravel also (pottery, Fig. 12: 16-18), all dateable to the late fifteenth or possibly early sixteenth centuries. The virtual lack of earlier material from the cesspit indicates either a scrupulous cleaning-out or, as is more likely, use for a short period only, after which it may have been filled and incorporated in the formal gardens north of the "new" wing extending west of the main courtyard. The pit also contained a large quantity of tiles and nails, and this lends support to the idea that it was open during some period of building activity; this is likely to be the building of the new west wing which, as mentioned above, was in existence by about 1558, and the evidence of the pottery from the pit does not conflict with this.

WALLS TO THE SOUTH OF THE CESSPIT (Fig. 3: 2 and 3):

Approximately 1.75 m and 3 m due south of the Tudor Cesspit, the stubs of, first, a badly damaged chalk wall of uncertain thickness, and second, a brick wall of about 400 mm thickness were found. Both were parallel to each other and to the southern wall of the cesspit and running at right angles to the north-south walls of the vault (see below), though in no discernible way connected with the latter. They rested on, and may originally have been cut into, natural gravel and had no dateable material associated with them, though the brick wall may, from the type of bricks in its construction, be placed in the sixteenth or seventeenth century. Neither coincided with any structural feature on the palace plan. The chalk wall survived for a length of 1.60 m, the brick wall for 3 m.

THE BRICK PIT (Fig. 3: 4):

Three sides of a (probably) rectangular brick pit, measuring 1.75 m by at least 1 m, and surviving for four courses, were found 1.75 m east of the Tudor cesspit. Its north-south walls were about 300 mm thick and its eastern wall about 450 mm thick. The west wall had been destroyed by later construction. The pit was isolated stratigraphically from all other features by later disturbance, but was cut into a layer of black soil (16) dated by pottery to the late fifteenth or early sixteenth century. Beneath (16) was (19), a layer containing pottery (Fig. 13: 1-13) of the twelfth to late fifteenth centuries, a jeton of 1400-10 (p. 242, No. 4), and a large quantity of roofing tiles; this layer was itself cut by (20), a feature also below (16) but containing material of similar date (Fig. 13: 14-21) and a large amount of roofing tile.

The little material from the pit included fragments of brown salt-glazed stoneware and clay pipe stems of the later seventeenth century. Again, the pit cannot be identified with any recorded structural features on the palace plan.

THE VAULT AND PARALLEL WEST WALL (Plates 5, 6; Fig. 3: 5, 6, Fig. 4, Sections AA and BB):

The main surviving structural feature of the palace was a vault, built of squared random chalk blocks with internally dressed faces; the blocks, though varying in size, generally averaged 200 mm by 170 mm. It was dug 2 m into the surviving clay and gravel and was trench-built against the natural subsoil; the outer face of the east wall, when exposed, thus presented a rough face of undressed stones. The internal width of the vault was 5 m, its maximum surviving north-south length was 13 m and the walls averaged 1 m in thickness.

The vault was roofed with chalk blocks, of which a very few survived *in situ*, supported on greensand arches arising from greensand springers spaced at 1.50 m intervals. The arches probably met at a point about 2 m above the base of the springers (Fig. 4, Section AA).

A floor level, much disturbed except at its edges, survived, though this was not the original floor of the vault but a much later addition. Below it, the following build-up of layers within the vault was found (see sections): resting on the London clay subsoil was a black clayey deposit (10) 70 mm thick, which contained material of the fourteenth-early sixteenth centuries. Above this was a hard white mortary deposit (9) 50 mm thick containing post-medieval tile but no dateable pottery, and it is conceivable that this could have constituted the original floor level, although its insubstantial nature argues against this—more likely it was a debris level associated with the construction of the vault. The next 450 mm to the latest "floor" level (mentioned above) consisted of four earthy and mortary levels containing tiles of uncertain date (8), clay pipes of the period 1690-1710 (7) and nineteenth century clay pipes, china and building debris (6, 5). The surface of (5) was compacted and flat and appeared to be the latest floor level of the vault.

Beneath this floor level, and cut into (6), (7) and (8) and resting on (9) was a brick-built feature. This was investigated where it abutted the west wall of the vault; against the east wall it appeared to be similar although here stratification was badly disturbed and time was not available for further study. It was not ascertained whether the feature existed abutting the north wall, although this is likely in view of its probable function (see below). The base of the feature was a single layer of tiles 10 mm thick, two tiles wide (350 mm) and resting on

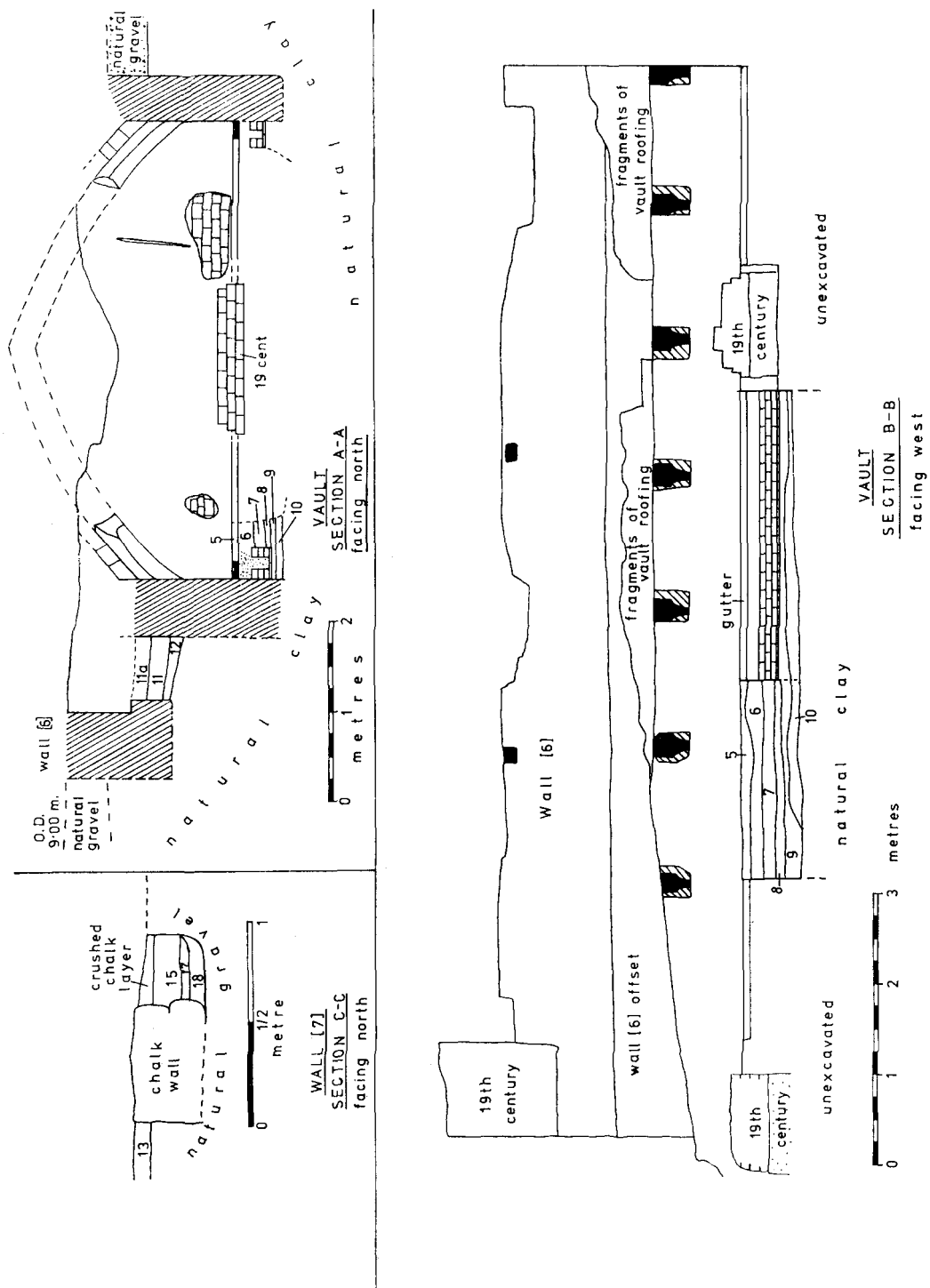


Fig. 4. Arundel House. Sections of vault and wall

(9). Resting in turn on this tile base were two parallel rows of bricks, each three courses deep, separated by a 130 mm cavity filled with earth and rubble containing late eighteenth–early nineteenth century china. Above this feature was a mortary rubble layer 140 mm thick, its surface level with, and perhaps identical with (5), though this was not clear. Set into this mortary layer, its top flush with the surface, was a gutter, rectangular in section, made of lengths of hard black brick–clay 75 mm thick, 190 mm wide and with a shallow U-shaped central channel running through its upper surface. This gutter ran around the entire surviving inner perimeter of the vault.

Investigation below the floor of the opposite (east) wall of the vault showed a similar arrangement, though with only two brick courses, resting on a grey mortary layer 60 mm thick over a firm, compact chalky mortar layer corresponding with (9) above.

Two irregular-shaped openings were cut through the north wall of the vault (Fig. 4, Section AA) and subsequently blocked with bricks of, probably, eighteenth century date. Through each of these openings a channel ran back through the wall. The above mentioned section (AA) shows that the vault was cut through the junction of the natural gravel and clay subsoils. Problems from ground water seeping along this line, over the impermeable clays and thence into the vault, must therefore have been encountered and these holes might have been a measure taken as an afterthought to channel the water away. Their functional relationship with the gutter and brick structure (or channel if that was in fact its function) is uncertain. The brick channel may have been built first to serve as a run-off for the water, being later superseded by the higher gutter following a raising of the floor level.

Immediately above the eastern opening in the north wall was a shallow vertical groove, 900 mm high, the purpose of which was not determined.

The north wall of the vault continued westwards beyond its west wall to meet another north–south wall, running parallel to the vault and continuing northwards for a further 3.75 m (Plate 6); this wall (Fig. 3: 6, Fig. 4, Sections AA, BB) was constructed at a higher level than the vault, of the same materials; for its full surviving height it was cut into the natural subsoil against which it was built on its western face. Ground level at the time of construction of this wall and of the vault appears therefore to have been at least as high as the surviving top of this wall, approximately 9 m above Ordnance Datum. This wall was 750 mm thick while parallel to the vault, but for its northern continuation its thickness was 950 mm. Unfortunately nineteenth century brick foundations had destroyed the junction of the two sections and the reason for the change in thickness (if it is the same wall, as seems likely) was therefore not clear. Two beam-holes (Fig. 4, Section BB) survived in this wall above the vault, suggesting that it was an internal wall face.

Dating of the structures by associated finds was based only on a few sherds of pottery. Whilst traces of soil levels against the top of the west side of the western wall produced a little pottery of the twelfth to fifteenth centuries (though no pottery was associated with its northern continuation) the three surviving layers (IIA, II, I2) between it and the west wall of the vault produced material of the thirteenth and fourteenth centuries (IIA), eleventh century (II) and fifteenth–early seventeenth centuries (I2), the last-mentioned being the lowest level. The middle stratum (II) was a layer of chalk dust and rubble; the layers dipped slightly towards the vault and seemed to be indicative of some construction activity—possibly the actual building of the structures, or alternatively repair work during the last 75 years of the palace's existence. Whilst no certainty can thus be attached to the building date of either of the structures, this must lie between the late fifteenth century and the end of the sixteenth or early seventeenth centuries; the palace was substantially completed by the latter dates, and pottery of the former date was associated with the construction levels between the west wall of the vault and the parallel western wall.

The northern part of the vault seems to have remained in use till the late nineteenth century. The southern part appears to have been in use at least until the date when the final floor level was constructed, when it then seems to have been demolished, fragments of the greensand vaulting being incorporated in the floor make-up (layer 5) which, as seen above, appears to have been of nineteenth century origin. That the northern part of the vault was still open at least until the erection, in the 1880s, of the buildings demolished in 1972 is shown by the fact that the foundations of these buildings were in five places built within and resting on the vault structure, the vault then being filled in with soil and rubble containing late nineteenth century material.

These features must now be identified, as far as possible, on the house plan (Figs. 1, 2). As has been seen above, if the vault is indeed the “blind dark cellar” where Pepys quaffed his ale, then it was not beneath the paved court but beneath the long north–south building to the north of it. If the wall to the west of the vault is thus taken to be part of the foundation of the western wall of this building, then the vault, being approximately 7 m in width externally, is considerably narrower than the building above (apparently 10 m wide) and, although built with substantial walls no doubt capable of bearing the load of upper stories, did not form the foundation of the

building. Possibly, then, it formed the foundation of an earlier, narrower, building and may thus be of mid-sixteenth century date, or possibly earlier. Beyond this, no further conjecture regarding its date would seem to be useful.

OTHER FEATURES:

Approximately 9 m north of the north-east corner of the vault an obtuse-angled fragment of a chalk wall (Fig. 3: 7), approximately 1 m thick, was discovered. The inner angle of the wall faced south-west, and the wall itself was cut a short way into the natural gravel (Fig. 4, Section CC). Within this angle was a surviving soil layer (13), comprising bands of clay and charcoal, containing a Flemish coin of c. 1390–1430, a leather shoe dated to the fourteenth or early fifteenth century (Fig. 20:1) and a quantity of pottery of the period 1300–1500 (Fig. 12: 20–27). In the foundation trench of the wall, on its northern and eastern sides, four layers of debris were identifiable, from the lowest upwards: (18) a dark soil containing fourteenth century pottery (Fig. 12: 28); (17) a layer of mortar and crushed chalk construction debris with no dateable finds; (15) a black soil with chalk fragments and fourteenth century pottery; and, on top, a layer of crushed chalk. The wall cut through layer (13) and may be tentatively identified with one of the angles on the southern side of the storehouse building situated on the north-western part of the main courtyard, which seems most likely to have been erected at some time during the sixteenth century.

The top surfaces of all the structural features so far described all survived to approximately the same level, with the exception of the vault, which survived to a somewhat lower level owing to the destruction of its vaulted roof.

A further short wall fragment (Fig. 2, inset, on the northern edge of, and parallel with, Howard Street and north of the "R" of "Street") was found, approximately 0.5 m north of the northern kerb of Howard Street and 5.20 m west of the west wall of the vault. Surviving to a height of 0.75 m and built against the natural gravel on its north side, with a backing of rubble, it was 0.5 m thick and constructed of ragstone blocks. It was supporting a late nineteenth century foundation and was virtually enveloped with modern demolition rubble, which made detailed investigation too hazardous to pursue.

THE WEST WING OF THE MAIN PALACE (See Fig. 2, inset, junction of Norfolk and Howard Streets, and Fig. 5):

All the maps and engravings of this part of the palace show it to be a substantial structure, in existence by 1558, of at least three storeys, with deep projecting buttresses and a crenellated roof. In no place, unfortunately, did the building survive except beneath the slightly less disturbed build-up of debris under Norfolk Street, where fragments of the front and rear walls of the building survived, respectively just south and just north of the junction of Howard Street with Norfolk Street, and covered with the thick artificially built up late seventeenth century levels which brought the ground surface virtually to its modern level.

Little reliable dating evidence for these buildings was found. However from the floors were recovered four yellow-glazed floor tiles; two measured 220 mm by 220 mm by 37 mm, the colour of the glaze tending to greenish in the centre, and two measured 225 mm by 225 mm by 30 mm, the glaze slightly mottled with green. Close parallels in the British Museum are from Placentia Palace, Greenwich, and are generally thought to be sixteenth century.¹⁸ In addition, a further tile measuring 230 mm by 227 mm by 30 mm, with a dark greenish-brown glaze, was found. This was similar to fragments found in the Tudor Cesspit, which has been dated to the period 1550–75, and this evidence is of course corroborated by the documentary evidence; a later sixteenth century date for this part of the building can therefore be postulated. The little material associated with the demolition levels of the building was of late seventeenth century date and accords well with the known destruction date of 1680–82.

A description of the observed remains follows. These were exposed during clearing operations by the building contractors; recordings and measurements of any detailed accuracy were rendered virtually impossible by the continuance of work. The following notes are therefore based on brief observations, and Fig. 5 is therefore a generalized plan showing the approximate location and appearance of the remains.

The structures coincided with the estimated position of the front and rear walls of the Great West Wing (here "frontage" refers to the face nearer the river, and "rear wall" is that nearer the Strand). The southern face of the wing formerly adjoined a raised garden terrace which stood considerably higher than the adjacent gardens, to which it was connected by a flight of steps; this is discernible on Plate 3. The frontage survived for a length of about 6 m and for a height of about 2 m above the sixteenth century garden terrace level. It consisted of a substantial brick wall somewhat over 1 m thick, decorated with a pattern of greensand blocks and resting on the natural gravels. The lower part of the wall was a wider projecting platform of brick, of uncertain width, on which rested a (probably) V-shaped projection, constructed of brick with greensand quoins, and presumably

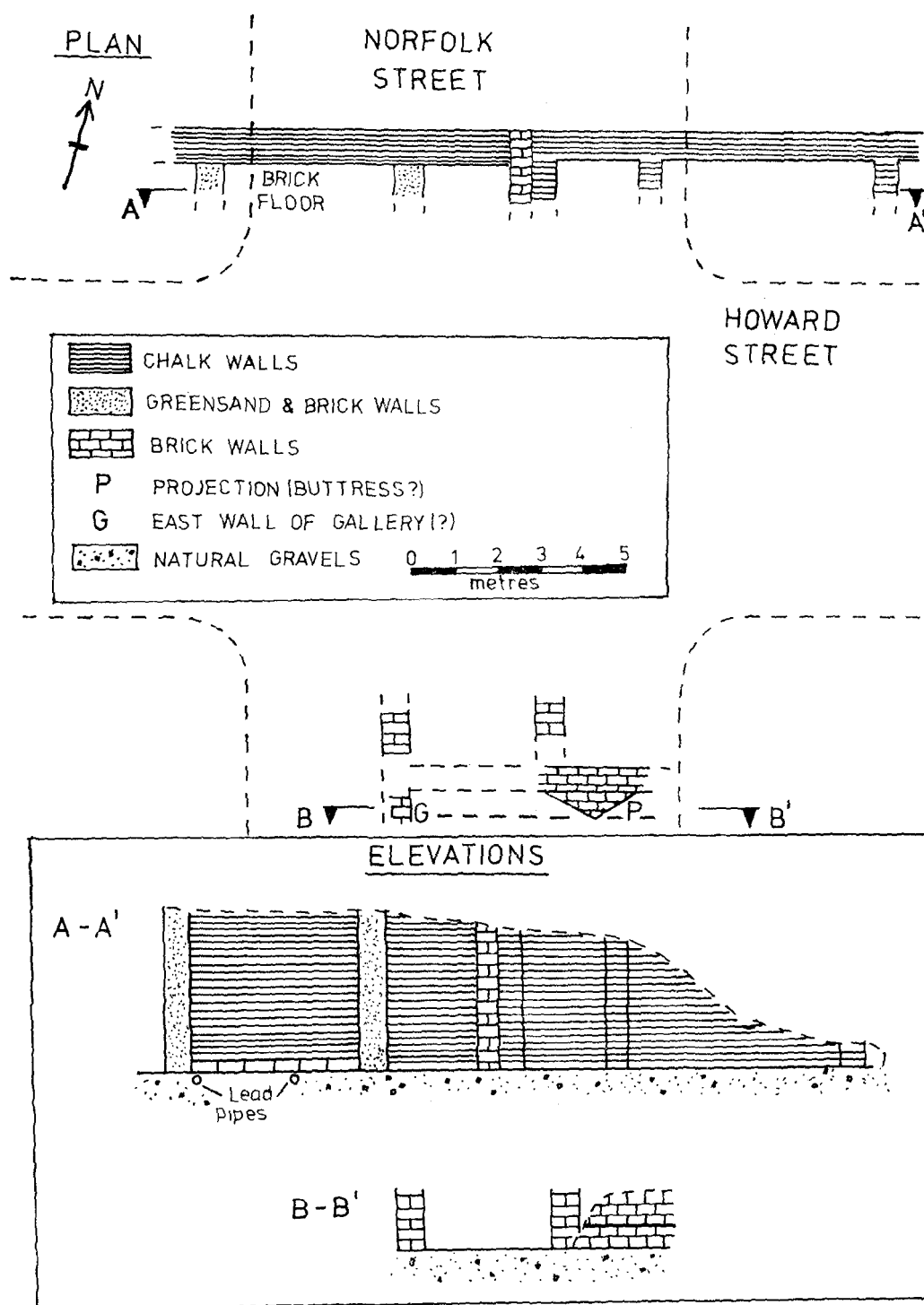


Fig. 5. Arundel House. Plan and elevation of structural remains of Great West Wing

one of the buttresses illustrated on the engravings. The top of this platform was at approximately +5 m O.D. At right angles to this wall, but substantially destroyed, was an internal brick wall somewhat less than 1 m thick; parallel to this, and running both north and south of the frontage wall, was a similar wall, probably the end wall of the wing which divided it from the gallery. This latter wall continued southward at a level similar to that of the terrace, and was then observed to drop away to a considerable depth, approximately 4 m to the garden level below the terrace. The foundations of this wall, observed to be substantial, continued for a further 1.50 m–2 m and this part of the wall doubtless belonged to the gallery itself.

Approximately 15 m north of this frontage the rear chalk wall was found. The western part was 800 mm thick. On the south (interior) side were the remains of two rooms 4 m and 2 m wide, the walls partitioning them built of greensand and brick; their thicknesses were, from west to east, 700 mm, 700 mm and 400 mm. The eastern part of the rear wall was approximately 700 mm thick, with three chalk partition walls joining its south side, the westernmost abutting the easternmost brick partition wall and being 500 mm thick. The other two partition walls divided this section into two rooms, 2 m and 5 m wide. The entire structure was resting on natural gravel. The internal faces of the second most westerly room were plastered; the westernmost room was floored with red brick, and from beneath this room were recovered 1.60 m of lead water piping, comprising two lengths of varying bore welded together; the junction of the two pipes is illustrated in Fig. 19: 7. In this same room traces of a vaulted ceiling remained.

The surviving level of natural gravel below the floor of the rooms abutting the rear wall was somewhat higher—about 1.50 m—than the equivalent level relating to the front wall. It did not prove possible, unfortunately, to observe any relation between the two walls and thus to examine how the differences in floor levels might have been accommodated structurally.

THE FINDS

THE SAXON POTTERY AND THE TUDOR POTTERY GROUP FROM THE CESSPIT

BY JEREMY HASLAM

SAXON POTTERY:

A total of 19 medium-sized sherds of pottery of Middle Saxon date were recovered from the site, from probably four different vessels, in addition to a complete loom weight. Of these, 17 sherds are of Ipswich type ware, one of chaff-tempered ware, and the other of an undefined fine sandy ware.

IPSWICH-TYPE WARE:¹⁴

16 of the 17 sherds are probably from one large storage vessel (Fig. 6, Nos. 1 and 2), all except two sherds coming from the base. The fabric is gritty, and varies in colour from dark or light brown to grey, the latter colour predominating, with usually dark grey surfaces. Tempering: numerous sub-rounded quartz sand of all sizes up to about 1 mm, with a few larger subangular grits, which give a rough texture to the surface. The fabric of the second vessel (Fig. 6, No. 3) is medium grey in colour, with only fine sand tempering. The diameters of the two shoulder sherds are approximate only.

SANDY WARE:

1 body sherd (not drawn): dark grey-brown fine sandy fabric with black surfaces.

CHAFF-TEMPERED WARE:

1 body sherd (not drawn): black-fired ware, tempered only with chaff, burnt out to form the characteristic cavities, and with impressions possibly of grass on the internal and external surfaces.

LOOM WEIGHT (Fig. 6, No. 4):

Brown-dark grey sandy and gritty fabric, with half a large flint pebble, and several large rounded red quartz grits, showing on the surface. Hand-made.

DATING AND CONCLUSIONS:

The dating of this pottery is not helped by the fact that none of it comes from its original archaeological context. However, a similar assemblage of associated pottery of the Middle Saxon period has been found in Whitehall, from several pits and the floor levels of a large timber structure.¹⁵ Here, Ipswich-type wares of very similar fabric, colour and tempering¹⁶ are also associated with chaff-tempered wares, 1 sherd of a rouletted Pingsdorf amphora, and 1 sherd of Tating ware. A similar association of Ipswich-type wares (of different types) and black chaff-tempered ware, with shelly wares and a Badorf amphora (without rouletting), have been recovered from excavations at Waltham Abbey, Essex,¹⁷ for which a date in the middle or later ninth century is suggested.

The parallels between the finds from Arundel House and those from these other sites, where the same middle Saxon wares are truly associated, suggests therefore that the former are derived from probably a single occupation site of the Middle Saxon period, for which a general date in possibly the later eighth or ninth century seems likely.

If those finds do indeed suggest occupation on the site of Arundel House in this period, then it provides an important addition to the firmer evidence of other habitation sites of the same period already discovered along the north bank of the Thames immediately west of the city—namely at the Savoy,¹⁸ and at Whitehall.¹⁹ A pattern emerges from this evidence, indecisive in its details, of a series of settlements or farms situated at intervals along the dry ridge forming the north bank of the river between the City and Westminster. The occupants of these settlements would have had easy access to the river for fishing, as well as to the already thriving city for markets for agricultural produce.

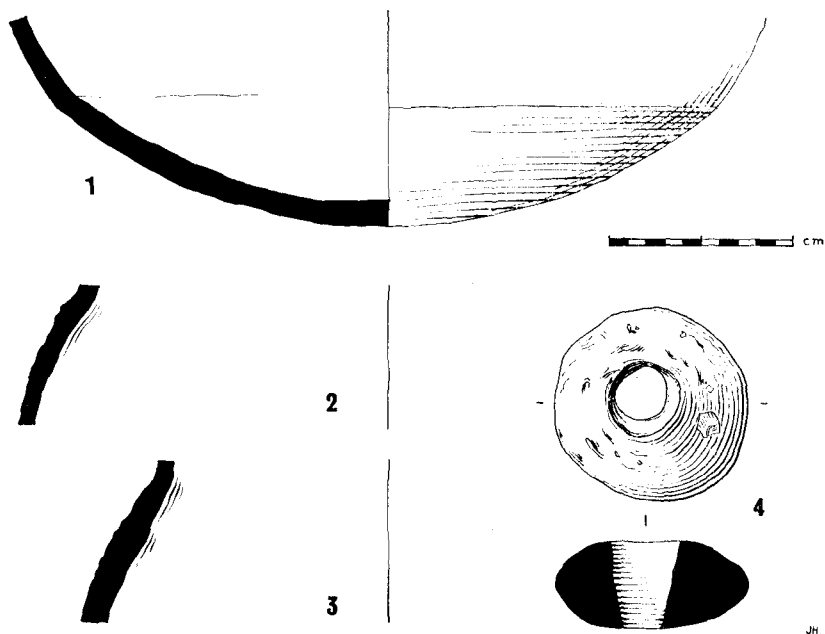


Fig. 6. Arundel House. The Saxon Finds ($\frac{1}{4}$)

The fact of these probable settlements also bears upon the early history of the Strand. The finding of several Roman cremation burials along the north side of Fleet Street,²⁰ and the excavation of a Roman structure under St. Brides Church,²¹ provides strong circumstantial evidence for suggesting that Fleet Street and the Strand are on or are very near the line of a Roman road, leading from a possible gate at Ludgate. In the Saxon period the Strand is referred to as Akeman Street in a charter of about A.D. 1000, a name which seems to imply a status as an important road to the west from the city.²² The archaeological evidence of the settlement sites of the eighth or ninth centuries along the Strand, as well as that at Westminster, helps to fill the gap in the history of the use of this road between the end of the Roman period and the later Saxon period, and could be taken as suggesting a continuity of use throughout the Saxon period. If this is so, then the strip of land along both sides of the Strand and Fleet Street becomes of some interest as being an area from which more important archaeological evidence of occupation in the Saxon and medieval periods might be expected to be obtained.

TUDOR POTTERY (Figs. 7-II):

The pottery from the large cesspit (p. 00, and plan, Fig. 3), described below, falls into seven main groups.

- I. Off-white or pale buff untempered wares, with yellow or green glaze.
- II. Brown-glazed "Cistercian" wares.
- III. Salt-glazed stonewares.

- IV. Tin-glazed earthenwares.
- V. Off-white sandy ("Surrey") wares, some with green glaze.
- VI. Red or grey wares decorated with white slip, with yellow or green glaze.
- VII. Plain red wares, some with clear yellow (orange) glaze.
- (VIII. Fragment of stove tile.)

I. OFF-WHITE TO PALE BUFF UNTEMPERED WARES:

These comprise a wide range of forms of vessel with either yellow or green glazes, all of them very finely potted, and with a fine off-white or buff fabric with very little sand tempering. These forms consist of the following types:

- chafing dishes
- costrels
- skillets
- bowl
- jugs
- dishes or plates
- ?pedestal dish or cup
- handled cup

(Fig. 7):

CHAFING DISHES (Nos. 1-3):

Represented by only three almost complete vessels, two glazed yellow and the other glazed green, mainly on the interior. These have two opposed vertical strap handles, three applied pulled lugs around the rims, and have three or four holes pierced through the rim of the vessel on either side of the handles. The vessels have been thrown as one from base to rim, with the inside base of the bowl closed with a separate piece of clay which has itself been thrown on a wheel. The bases have all been trimmed with a knife after removal from the wheel.

COSTRELS (Nos. 4-5):

One complete vessel and fragments of at least three others, two glazed green and two yellow. These are thrown on the wheel as a closed flattened globe, and have a tubular neck (which is itself thrown separately on a wheel) attached to one side, and against which are applied the two handles. They are glazed on the upper part only.

SKILLETS (No. 6):

Of two kinds, each represented by one complete vessel and fragments of one or two others. Both are almost exactly similar, and differ only in that one (No. 6) has three small applied feet. The latter is glazed green; the other (not illustrated) is glazed yellow—in both cases on the interior only. Both have elongated pulled handles applied to the rim.

BOWL (No. 7):

Fragment of a single vessel, with yellow glaze on the interior only.

JUGS (No. 8):

One complete vessel and small fragments of a few others. The complete vessel is of a type common in London, having a thin strap handle applied at both junctions, and with in this case a rather overfired and reduced speckled khaki-green glaze on the upper part of the vessel only.

DISHES (Nos. 9 and 10):

Sherds of three or four small dishes with flanged rims, glazed green on the upper side only. One has a kiln scar on the rim, showing it to have been fired on its side.

?PEDESTAL CUP (No. 11):

Base only of one vessel, glazed green on the exterior. The interior of the base has been pared with a knife.

CUPS (not illustrated):

Rims of one or two cups of typical early sixteenth century Tudor green type; fine off-white fabric with dark green glaze on the interior.

Also present: a body sherd with basal attachment of handle, of a jug (No. 12, diam. at girth approx. 140 mm). Fine white highly micaceous fabric with a thick lustrous dark green glaze on the exterior. Possibly French. Base of a pedestal cup (not drawn) in similar fabric, with green glaze on the interior only.

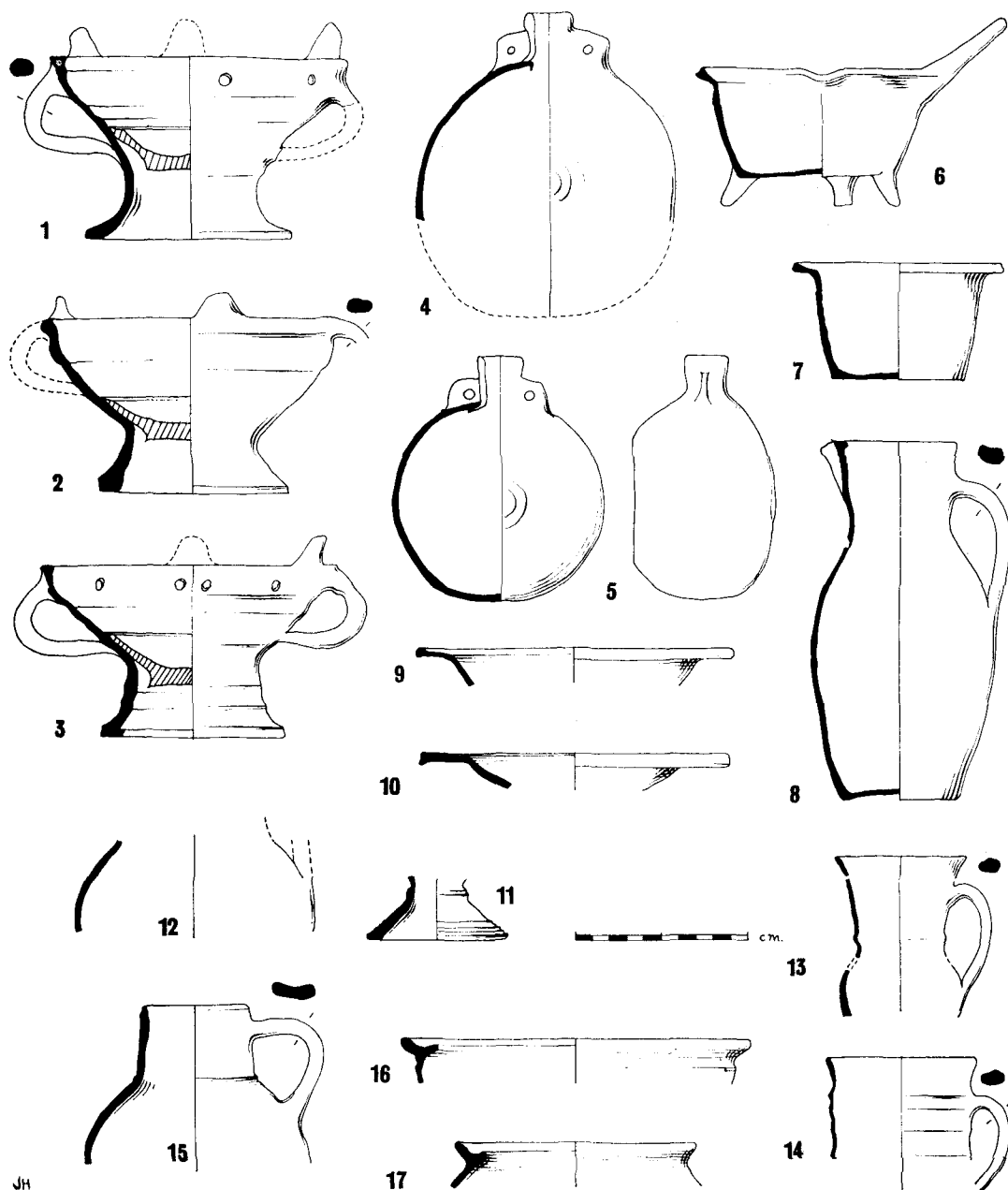


Fig. 7. Arundel House, Tudor Cesspit group. Nos. 1-17 ($\frac{1}{4}$)

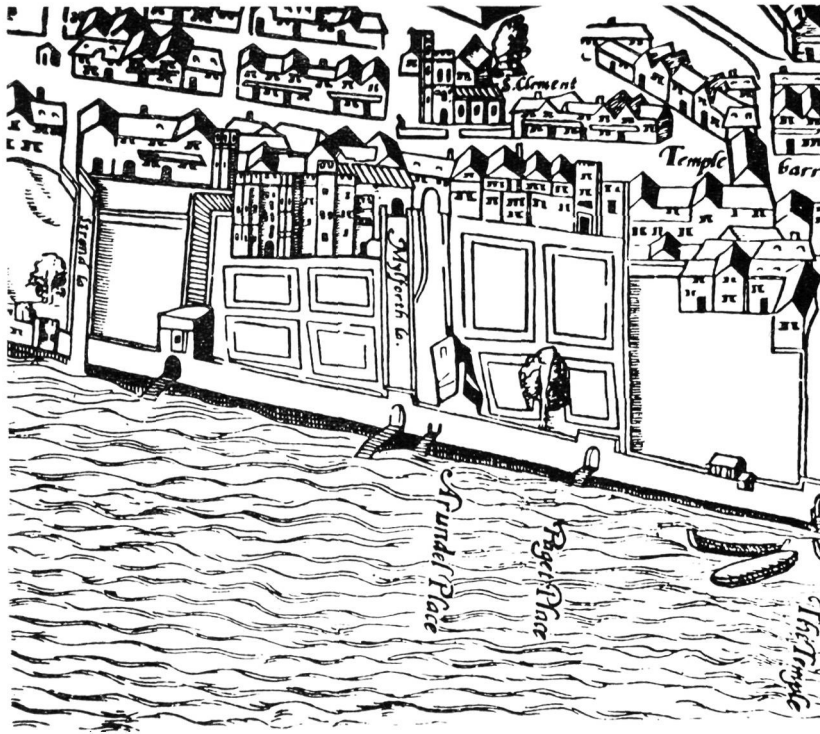


Plate 1. Arundel House from the Agas Map (surveyed c. 1558).
(*Photograph J. S. Earp*).

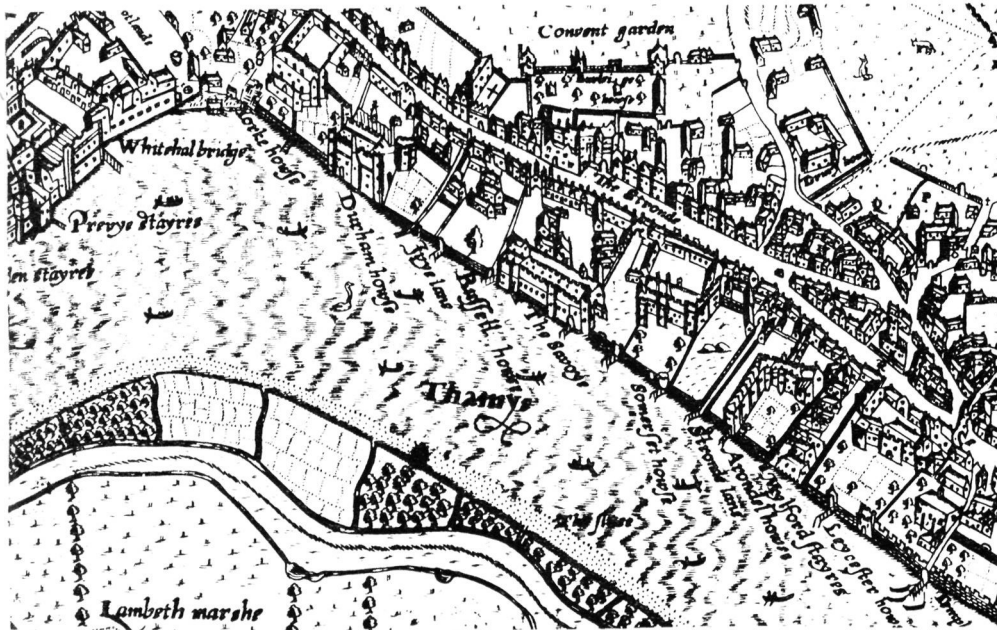


Plate 2. Arundel House, part of John Norden's map of Westminster (from *Speculum Britanniae* 1593)
(Photograph courtesy of London Museum).

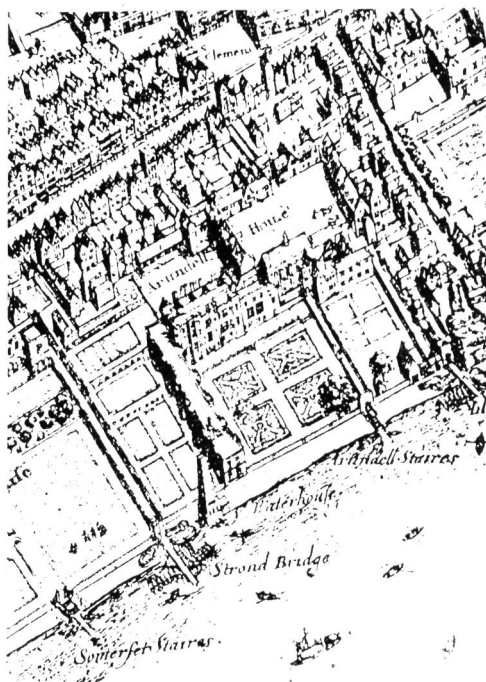


Plate 3. Arundel House. Hollar's general view printed between 1656–1666.

(*Photograph J. S. Earp*).



Plate 4. Arundel House. The Tudor cesspit (scale in 0.5 m).



Plate 5. Arundel House. The vault (scale in 0.5 m).



Plate 6. Arundel House. North-west corner of vault with parallel west wall in background.



Plate 7. Arundel House. The Medusa frieze (see text p. 247 for measurements) (*Photograph London Museum*).



Plate 8. Arundel House. The sandalled foot and altar
 (see text p. 247 for measurements)
(Photograph London Museum).

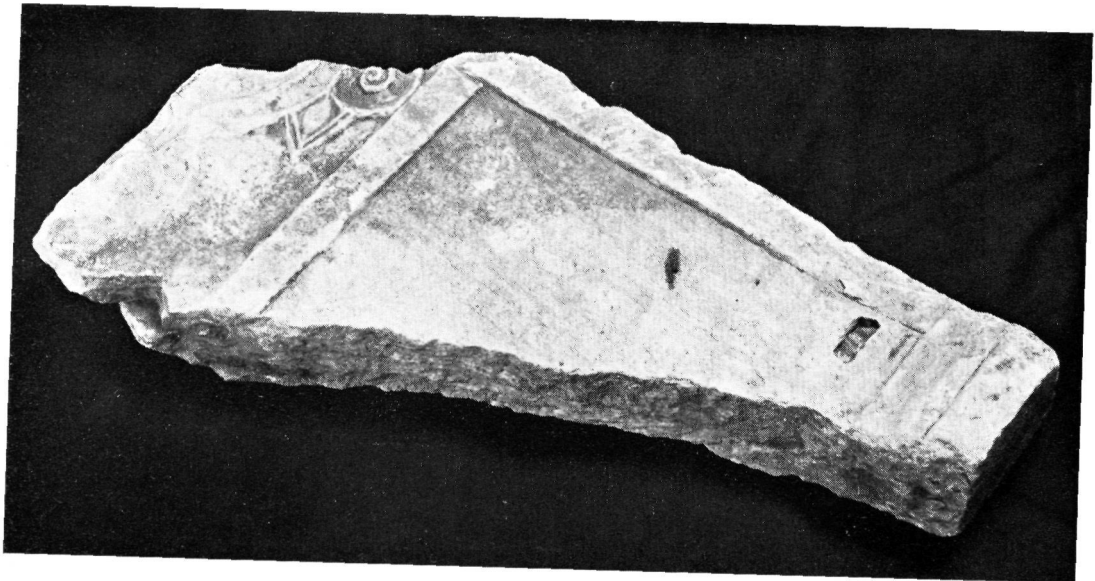


Plate 9. Arundel House. Fragment of table-support (see text p. 248 for measurements)
(Photograph London Museum).

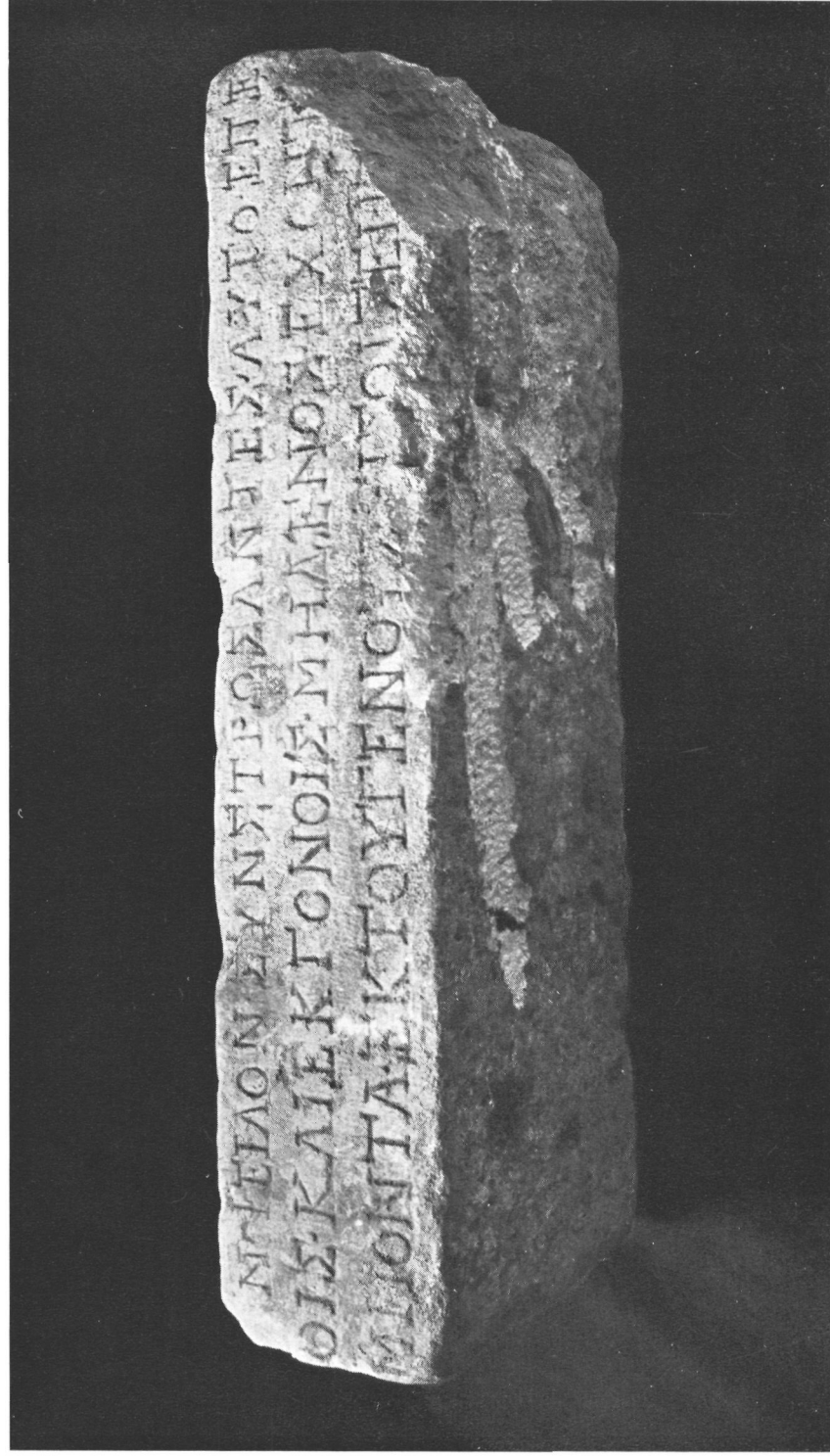


Plate 10. Arundel House. Greek funerary inscription (see text p. 248 for measurements) (Photograph London Museum).

II. CISTERCIAN WARE (Nos. 13 and 14):

Fragments of two cups, very thinly potted, with dark red-brown fabric and thick glossy dark brown glaze on both the interior and exterior.²³

III. SALT-GLAZED STONEWARES (No. 15):

The top and two fragments of the base of two undecorated Frechen-type drinking mugs, with speckled brown salt glaze on the exterior.

Also present: one very small body sherd only of a Cologne mug with part of a moulded leaf and a rose (too small to draw).²⁴

IV. TIN-GLAZED EARTHENWARES (not drawn):

Two very small body sherds, one from the side of probably an altar vase, with off-white fabric, white tin glaze on the interior and exterior, and painted decoration in dark blue on the exterior; the other of pale buff fabric with pale blue tin glaze on both the interior and exterior, and with painted decoration on the exterior of narrow horizontal stripes and other designs in white and dark blue (the latter probably from an albarello; possibly N. Italian).

V. OFF-WHITE SANDY WARES (MEDIEVAL SURREY WARES) (Nos. 16-17):

Twelve small sherds of different vessels with off-white to buff fabric with red sand tempering: probably survivals from the fifteenth century. Recognizable sherds include two rims from bulbous Cheam-type jugs,²⁵ rim sherds of cooking pots with bifid rims (one, No. 17, with green glaze on the exterior), and several body sherds of jugs and/or cooking pots, some with green glaze on the exterior or interior respectively.

VI. RED WARES WITH WHITE SLIP AND YELLOW OR GREEN GLAZE (Nos. 18-34, Figs. 8 and 9):

About 15 vessels of this type are present. They are all of fine sandy red-firing fabric, usually with a grey core at the thickest points. The decoration of white or buff slip is usually applied either by dipping the vessel into the slip, or pouring the slip into the vessel and spreading it around by rotation. The following forms of this class of vessel are present in the group:

- chafing dishes
- jugs
- jars with hollow spouts
- wide bowls
- domestic vessel (chamber pot)
- ?condiment dish
- tripod cooking pot

(Fig. 8):

CHAFING DISHES (No. 18):

About three different vessels are represented by fragments only. All have sharply moulded rims, with applied pulled lugs on the outer edges. There are no recognizable bases. The vessel drawn is glazed green over the applied white slip on the interior, and is decorated with wavy lines incised through the slip under the glaze ("sgraffito" technique). Lugs from two other vessels are covered with slip and a bright yellow glaze.

JUGS (Nos. 19, 28-34):

The complete jug, No. 19, has been dipped in slip while held by the handle and then glazed with a speckled green glaze, probably applied with a brush, over the upper part of the body. The applied strap handle has a finger impression at the base, and the rim has a simple pulled spout opposite the handle. The foot is decorated with all round thumb impressions.

Also present: rim sherds of seven other vessels of similar type (Nos. 28-34), all with white slip and yellow glaze.

JARS WITH HOLLOW SPOUTS (Nos. 20-21):

Fragments of two of these vessels are present in the group. One, No. 20, has an out-turned rim, two vertical rod handles applied between the rim and the shoulder, and a hollow tubular spout applied to a hole in the shoulder pierced from the inside outwards, at right angles to the position of the handles. Not enough remains of the vessel, unfortunately, to indicate whether there was a similar spout on the opposite side. The vessel is decorated with an applied thumb impression around the base of the neck, and with wavy lines around the neck and shoulders incised through the slip. A thick speckled green glaze covers the white slip around the upper part of the body.

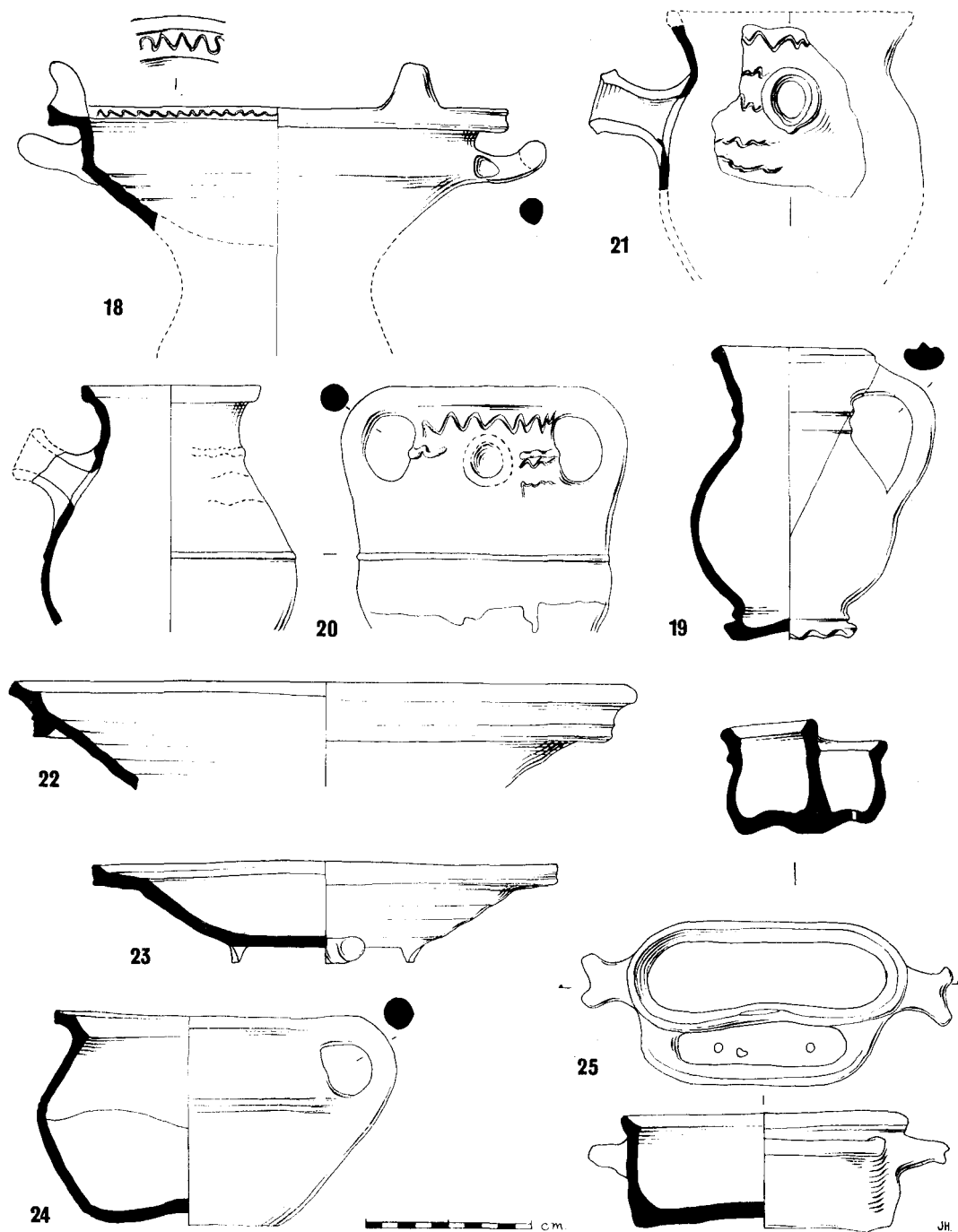


Fig. 8. Arundel House. Tudor Cesspit group. Nos. 18-25 ($\frac{1}{4}$)

Only enough remains of the second vessel of this type (No. 21), to show a large hollow spout, with the lower lip pulled downwards at the lower edge, which is applied to the shoulder in the same way. This is decorated and glazed in a similar fashion.

As far as the writer is aware, this vessel has no parallels with other finds in England. However, a recent series of finds from a medieval kiln at Utrecht, Holland, dateable on good stratigraphical evidence to *c.* 1400, includes complete examples of vessels of possibly similar type. These have two opposed spouts applied to the shoulder of the vessel, with two loop handles between rim and shoulder at right angles to the spouts. It seems likely that these vessels were suspended freely from the handles, allowing liquid to be poured in opposite directions from either of the spouts. The two vessels from the Arundel House group could well be very similar in type and function to the earlier Dutch examples, and if they are, provide one more instance of the undoubted influence during the later fifteenth and sixteenth centuries of the Dutch pottery industry on the English.

WIDE BOWLS (MILK PANS) (No. 22):

Rim sherds of three of these vessels and the handle of another are included in the group. These are only sparsely slipped on the interior and on the handle, and have yellow glaze on the interior only.

PLATES (No. 23):

Half of a complete example, and sherds of three or four others. These have wide-flanged rims with three pulled feet around the base. Decorated with white slip on the interior of the bowl, and with yellow glaze over the interior and in spots over the exterior.

These types of bowls and plates are paralleled by many examples from the early part of the sixteenth century,²² but there is no reason to suppose that production of these vessels did not carry on throughout most of the sixteenth century.

DOMESTIC VESSEL (No. 24):

Single example only, complete. Flattened flanged rim with single vertical rod handle between the rim and the shoulder, with the top of the handle slightly pinched upwards. Decorated with white slip slopped around the interior, and with thin greenish-yellow glaze over most of the interior, rim and part of exterior.

CONDIMENT DISH (No. 25):

Single complete vessel only. Made in two unequally sized compartments from a cylinder of thrown clay cut from the wheel and attached to a moulded base. Two bifid lug handles are attached to the ends of the larger compartment; the base of the smaller compartment is pierced with three holes. The exterior of the vessel is covered with white slip and yellow glaze.

The exact function of these vessels, a number of which have been found in London, is problematical. It seems possible that they are of Dutch origin.

(Fig. 9):

COOKING POTS (Nos. 26 and 27):

Single complete vessel (No. 26); out-turned rim and bulbous body with sagging base with two applied vertical handles which are slightly pinched near the upper junction. Three short feet are applied to the base. Thick slip slopped around the interior, with a thin yellow glaze in patches over parts of the interior and exterior.

Also 1 sherd of another vessel (No. 27) with white slip on the interior.

VII. PLAIN RED WARES (Figs. 9, 10 and 11, Nos. 35-58):

About six nearly complete vessels of this type are present, with fragments of a few others of indeterminable form. These are all of fine sandy reddish-brown fabric, usually with a grey core in the thicker parts. Most are partially glazed with clear lead glaze only. The different vessels come probably from a number of different kiln sites in or around London, or are possibly imported from Holland. The vessels comprise large jugs, bowls and cooking pots.

JUGS (Nos. 35-40):

Two complete vessels from different kilns (Nos. 35 and 36). No. 35 is of bright red fabric, with a single applied rod handle, simple pulled spout and raised cordons around the neck, and decoration of wavy grooves incised around the shoulders; bright orange glaze around the front of the upper part of vessel. No. 36—of similar size and form, with grey-brown sandy fabric, but with only a few spots of glaze. Both jugs have three large pulled feet at the edge of the base.

Also present: the body and part of handle of one other smaller vessel, and the rims of three others (Nos. 37-40).

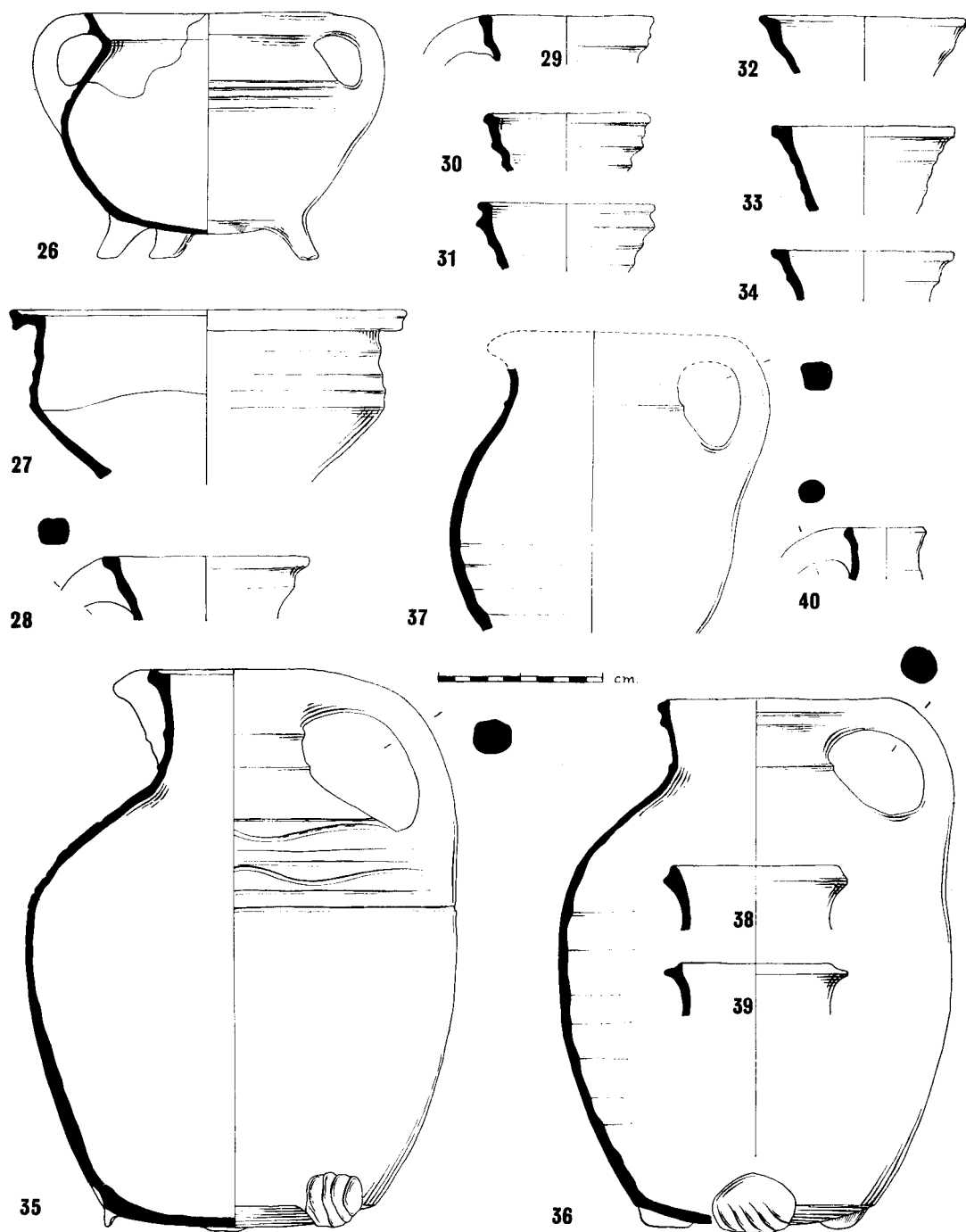


Fig. 9. Arundel House. Tudor Cesspit group. Nos. 26-39 ($\frac{1}{4}$)

BOWLS (Nos. 41 and 42):

No. 41 has two horizontal loop handles. Both are very similar to types which have white slip and yellow glaze on the interior.

COOKING VESSELS (Nos. 43–58):

Two large complete vessels (Nos. 44 and 46) from the same kiln, with everted moulded rim and two vertical rod handles, and three applied feet on the base of each vessel. Both are glazed with clear lead glaze over the interior base, and the exterior rim and shoulders. The rim of another larger vessel (No. 45) and several rims of smaller vessels (Nos. 48–57), all of the same type, are also drawn. The base (No. 58), is possibly from a jug, such as Nos. 30 and 36.

No. 43 (complete vessel) is a pipkin with an elongated pulled handle, and three small thumbled feet.

VIII. STOVE TILE (not drawn):

Small fragment only of a stove tile, probably imported. Fine sandy reddish brown fabric with grey core, with a thick coat of applied white slip over the externally facing surface, moulded into a form which it is not possible to interpret, and the slipped part covered with a dark lustrous green glaze.

DATING AND CONCLUSIONS:

The finds described above together form one of the largest associated groups of pottery of the later part of the sixteenth century so far recovered in London. No parallels to most of the types from this cesspit have yet been published,²⁷ and so it is difficult to fix the group in time with any degree of certainty. Most of the pottery finds are of types common in London, and all except groups II–IV are probably of local manufacture—*i.e.* in either London itself (Groups VI and VII) or Surrey (Groups I and V). The virtual absence of the finer tin-glazed earthenwares, as well as of stonewares and domestic glass, which are all comparatively common in the later sixteenth century, suggest that these finds are not representative of all the ceramic (and glass) types probably in use in Arundel House at this period. They seem therefore to be from a specialized context such as the pantry or buttery, the contents of which for some reason were completely cleared out at one time. The only residual sherds are those from Group V (sandy Surrey wares), which represent types common in the later fifteenth century.

Several facts point to a likely date of deposition of this group in the middle, or third quarter, of the sixteenth century. A number of the vessels of Group I, the fine untempered wares from the W. Surrey–E. Hants borders, are very similar to those from the late sixteenth century phase of a kiln site at Farnborough.²⁸ In particular the costrels (Nos. 4 and 5), the skillet (No. 6), the bowl (No. 7) and the dishes (Nos. 9 and 10) are similar to the types of products from this phase of the kiln. The jug (No. 8), while also being represented from this kiln, is, however, almost exactly the same as other vessels from a group from the Treasury site predating 1532,²⁹ and from a group of pottery at Farnham Castle, dated 1521.³⁰ The chafing dishes (Nos. 1–3), with their inner bases thrown separately, are of a type not represented in the products of the Farnborough kiln,³¹ and could well be products of another contemporary or earlier pottery-making site in the same area.

In his article cited above,³² Holling does not give any examples of pottery from the earlier or middle part of the sixteenth century. It is possible that the remarkable range of forms from the Arundel House group (Nos. 1–11) represent types of vessels which were indeed in production in the W. Surrey–E. Hants border area during this period. The use of both green and yellow glazes on different vessels of this group is also a feature of some interest at this early date.

Many of the types of slip-decorated red ware vessels (Group VI) are also represented in earlier sixteenth century groups of pottery in London, notably those from Guy's Hospital and the Treasury sites.³³ The type appears to have been introduced into the London area in the late fifteenth or early sixteenth century from Holland, where similar shapes of slip-decorated vessels were being produced from the early fifteenth century at least. The absence of the English slip-decorated vessels from places such as Norwich and Southampton, both of which ports were, like London, extensively served by Dutch ships, would seem to suggest that this type of pottery (as well as those red-ware types with no slip) were made in the London area from the late fifteenth century. Their similarities with Dutch prototypes would, however, suggest that they were manufactured possibly by or under the influence of immigrant Dutch potters. Their production evidently went on throughout the sixteenth and into the seventeenth century, but at present it is not possible to set up a chronological sequence of forms or to make any final comments on their development. Many of the forms of these vessels in this group, particularly the chafing dish (No. 18), plates and bowls (Nos. 22–23, and 41–42) and the condiment dish (No. 25) are however similar in many respects to some of the vessels from the early sixteenth century Guy's Hospital and Treasury groups, as well as from other unpublished groups of the same period in the Museum of London. The similarities suggest a date of

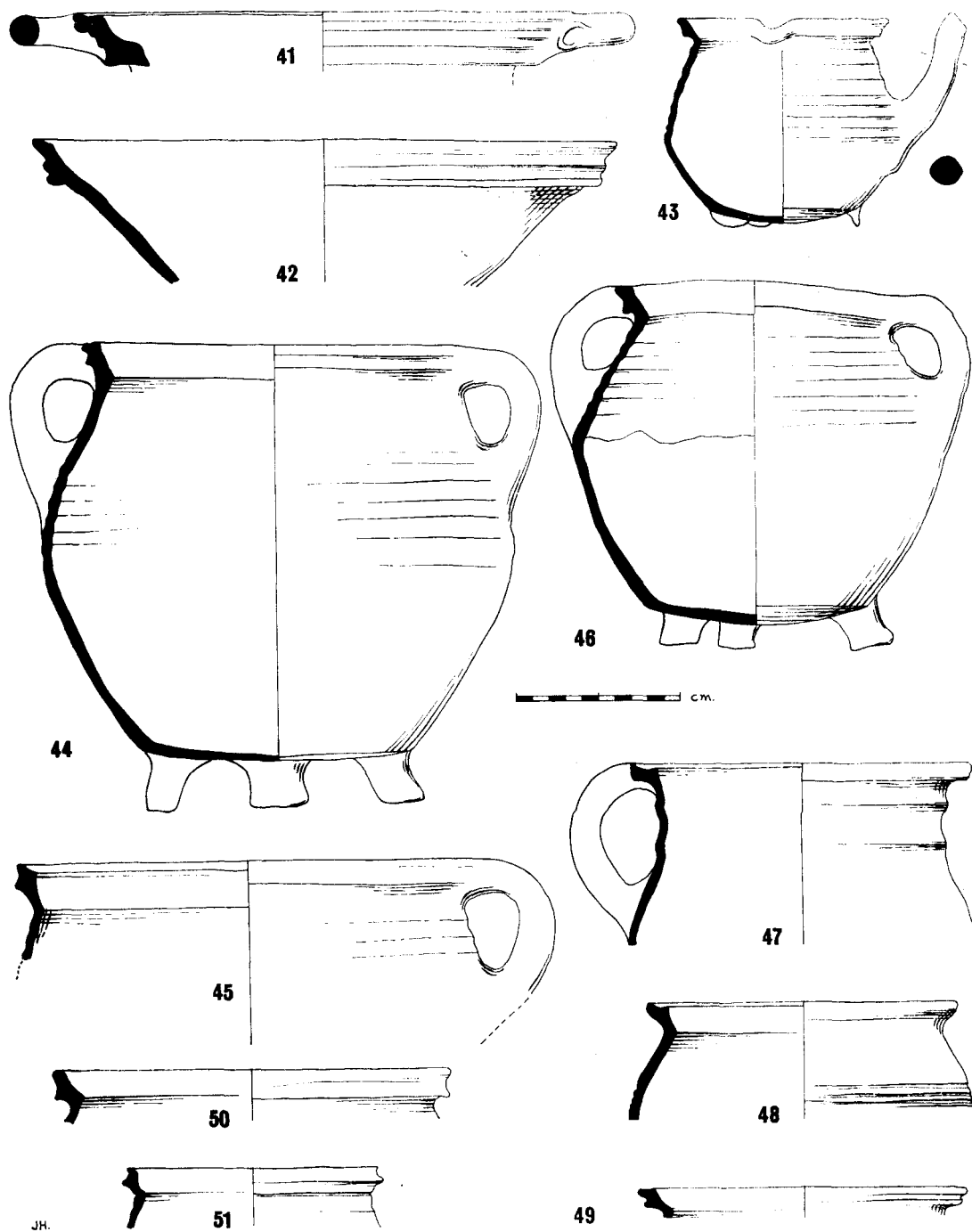


Fig. 10. Arundel House. Tudor Cesspit group. Nos. 41-51 ($\frac{1}{4}$)

production for the Arundel House vessels in the earlier or middle rather than the later sixteenth century. The use of green glazes on the yellow slip on some of these vessels (such as the jug, No. 19, and the pouring vessels, Nos. 20 and 21) might well, however, be indicative of a slightly later date, since green glazed slipped wares are most unusual in the Guy's Hospital and Treasury groups.³⁴

The presence of Frechen and decorated Cologne stoneware vessels is also not at variance with a date around the middle of the century. Although decorated Cologne stoneware vessels are found in the first quarter of the century, their period of use probably extends well on towards the end of the century.³⁵

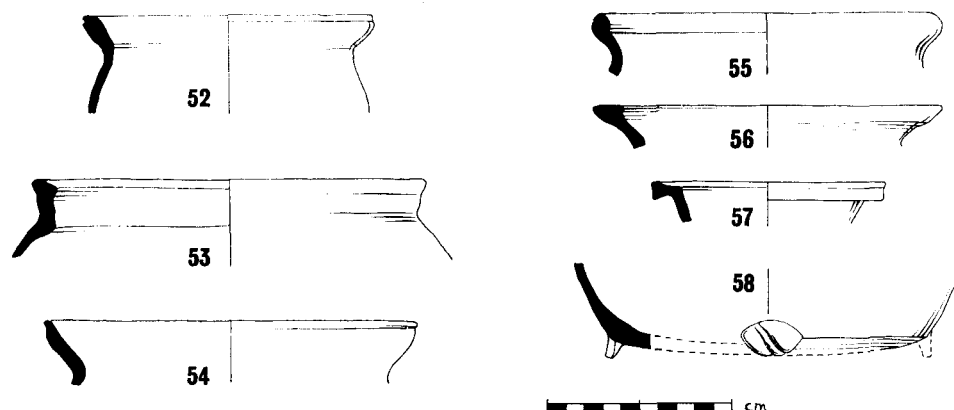


Fig. 11. Arundel House. Tudor Cesspit group. Nos. 52-58 ($\frac{1}{4}$)

OTHER POTTERY:

FIG. 12:

Feature A-1 (Highest surviving soil layer into which Tudor Cesspit was cut)

1. Bowl in buff Surrey ware, fifteenth century.
2. Wide-necked jar in buff Surrey ware.
3. Base of bowl in buff Surrey ware, interior coated with dark green glaze.
4. Base of bowl or pitcher in buff Surrey ware, with finger-impressed frilled decoration.
5. Pitcher in buff Surrey ware, with pierced handle, and (not shown) fragment of a similar rim with splashes of external green glaze.
6. Rim of pitcher in buff Surrey ware. External green glaze.

Buff Surrey ware, not shown:

- 1 sagging pitcher base with frilled decoration; 1 sagging bowl base with internal green glaze; 1 pitcher handle, similar to Fig. 12: 17, with green mottled glaze, decorated with three vertical V-sectioned slashes; 13 body sherds with external green glaze; 11 plain body sherds.
- 7. Bowl in off-white Surrey ware.
- 8. Similar. Surface abraded, but retaining traces of green glaze on inner surface below lip.
- 9. Foot of vessel in hard smooth slightly sandy light grey ware. Thirteenth century. Other medieval sherds, not shown: Sandy buff ware with blob of green glaze and two vertical stripes of red (iron) slip; two sherds of similar ware with green glaze suffused with red mottling; hard grey shoulder sherd with diagonal painted yellow strip over khaki green glaze, fifteenth century; sherd hard, smooth, grey, early medieval ware.
- 10. Fragment of Roman everted-lipped jar in hard smooth black fabric; traces of burnishing on upper surface. Diameter uncertain.

11. Fragment of body and handle of sixteenth century cooking pot in hard sandy fabric with red surfaces sandwiching grey core.

Sixteenth century wares not illustrated:

Fragment of base with thick internal green-brown glaze; shoulder sherd in hard smooth pink fabric with internal green glaze, probably part of same vessel as Fig. 12: 18; 6 worn body sherds.

Feature A-6 (Identical with Feature A-1)

12. Neck and handle of stoneware jug in Siegburg ware, late fourteenth-early fifteenth century. Hard smooth creamy-grey fabric with traces of brown mottled glaze on upper surface.

13. Pitcher rim in hard smooth slightly sandy grey ware. Coated with white slip. Traces of external light green glaze. Diameter uncertain. Late fourteenth-early fifteenth century.

Not illustrated:

5 sherds buff Surrey ware, one with external green mottled glaze; 1 sherd off-white Surrey ware with internal green mottled glaze; small fragment of cooking-pot rim in hard, grey, sandy ware, surface layers fired dull chestnut, tempered with shell, twelfth-thirteenth century.

Feature A-5 (Dark clayey soil layer north of A-1 and A-6, resting on natural gravel. Isolated from other strata by later disturbance)

14. Base in hard, grey, sandy ware; interior surface dull grey-brown; exterior surface dull chestnut with splashes of translucent brown glaze. Late thirteenth century.

15. Base in hard, smooth, light grey fabric, approaching stoneware in texture. Surfaces fired grey-buff. Possibly a French import: ?late thirteenth century.

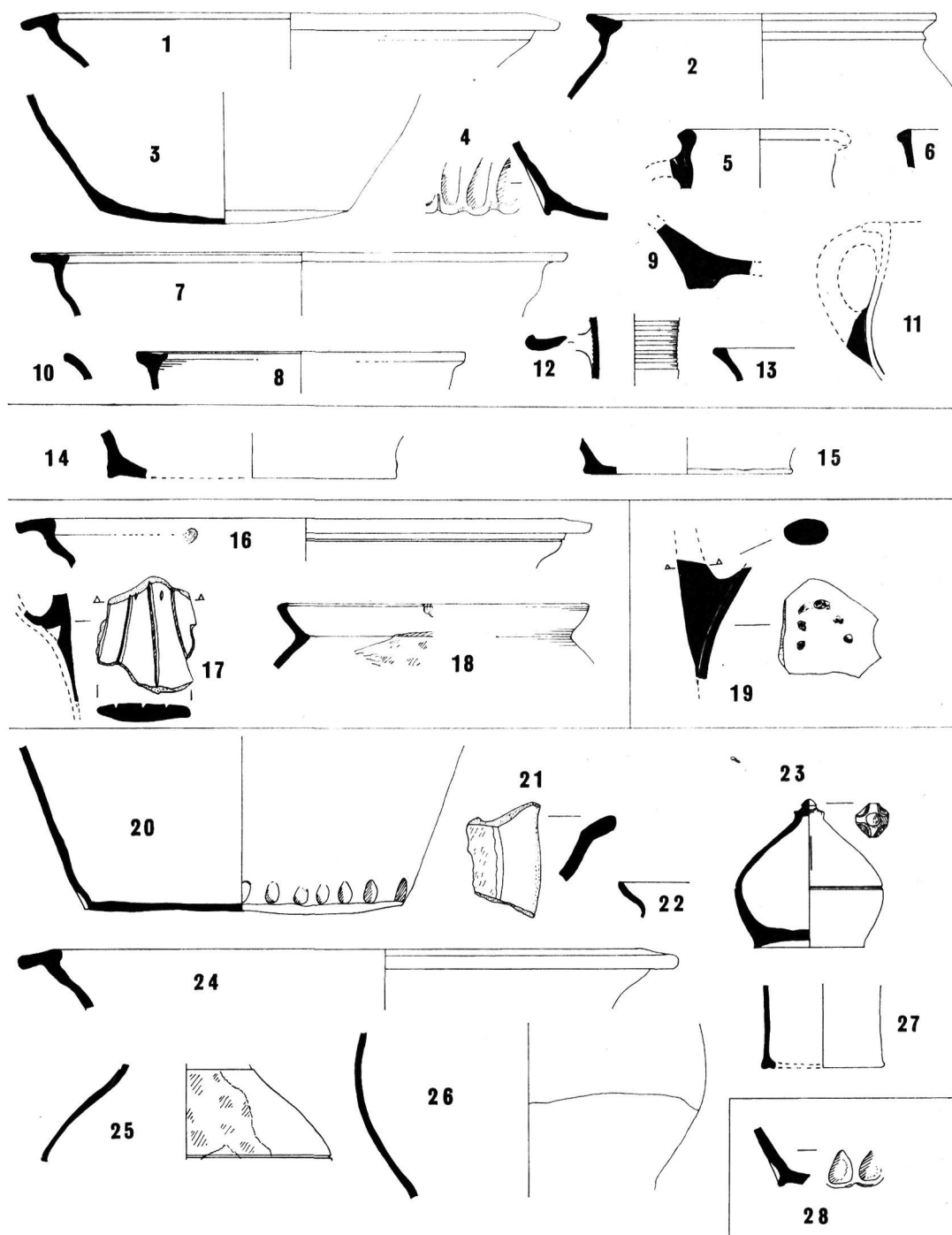


Fig. 12. Arundel House. Medieval Pottery. Nos. 1-28, pp. 231, 233 ($\frac{1}{4}$)

Not illustrated: small fragment, brittle grey-brown ware with corky texture and appearance, tempered densely with large black, pink and white grit.

Feature A-7 (Brown clayey soil below A-1 and A-6, resting on natural gravel. Also cut by Tudor Cesspit)

16. Bowl in buff Surrey ware. Blob of bright green glaze on interior surface.

17. Base of handle of off-white Surrey ware pitcher. Incised vertically with three deep V-section slashes. Two holes pierced in surface. Coated with mottled green glaze. Fourteenth century.

Not illustrated: 9 sherds buff Surrey ware, including fragment of pitcher base with finger-impressed frilling and two sherds with external green glaze.

18. Cooking jar in hard fine dull pink ware, with dark green glaze splashed over part of interior of rim and body.

Feature 12 (Lowest level of accumulated debris between west wall of vault and the parallel west wall)

19. Lower part of handle and fragment of body of pitcher in buff Surrey ware, third quarter fifteenth century. Inside of body beneath junction with handle has been pierced seven times with a pointed instrument, in a U-shaped pattern.

Not illustrated: 1 sherd buff Surrey ware with external green glaze; 2 plain sherds grey sandy medieval ware.

Feature 13 (Layer of charcoal and clay, resting on natural gravel, cut by wall fragment (Fig. 3: 7) to north-east of vault)

20. Base of pitcher in off-white Surrey ware with frilled finger-impressed decoration, fourteenth century, and (not shown) 5 fragments of similar vessels.

21. Rim and part of spout of dripping pan in hard, fine salmon-pink ware. Inner surface of dish coated with mottled green glaze over white slip. Late fifteenth century.

22. Rim of cooking pot, green glaze on both surfaces. Sixteenth century.

23. Money box of a type well known though infrequently found in a dateable context. Hard, creamy-white fabric, upper surface coated with mottled green glaze, which has run down body. Tip in form of stylized flower-bud with broad pointed calyx. Girth groove. Glaze has dripped through slot onto inner base of vessel, though not directly beneath slot; vessel was therefore resting at an angle during firing.

24. Large bowl in gritty pink-grey Surrey ware, fifteenth century, and (not shown), fragment of base of a buff Surrey ware pitcher with fingertip frilling and fragment of pierced handle from buff Surrey ware jug, about 35 mm wide and with deep incised groove.

25. Shoulder of jar in hard, gritty white ware with slightly offset neck and incised girth groove. Part of body coated with "bib" of mottled green and brown glaze.

26. Body of globular jar in hard, smooth, grey ware with dull orange surfaces. Upper part of body has been dipped in white slip and splashed with mottled green glaze.

27. Pedestal? base in hard pink-buff ware. Traces of translucent green glaze splashed over white slip.

Feature 18 (Lowest soil level in foundation trench of Fig. 3: 7 (Wall))

28. Base of pitcher in buff Surrey ware with fingertip frilling.

FIG. 13:

Feature 19 (Soil layer cut by brick pit to east of Tudor Cesspit)

1. Saucer in off-white Surrey ware with foot-ring base. Green glaze on lower half of inner face; also splashes of glaze on footring. Fourteenth century.

2. Body sherd of large pitcher in off-white Surrey ware with olive green glaze splashed down external surface. Fourteenth century.

Not illustrated: 1 small sherd similar to (2) above; 1 small sherd off-white Surrey ware with trace of red glaze; 5 plain body sherds off-white Surrey ware.

3. Tall-necked pitcher (spout missing) in buff Surrey ware. Fabric lightly tempered with pink sand. 1350-1425.

4. Flat-topped bowl rim in buff Surrey ware. 1350-1425.

5. Lid-seated jar in buff Surrey ware. Green glaze on exterior of body and part of exterior of rim. 1350-1425.

6. Spouted pitcher in buff Surrey ware. Handle decorated with stab marks and incised vertical groove down external surface. 1350-1425.

7. Shoulder of pitcher in buff Surrey ware, with vertical trail of olive-green glaze. 1350-1425.

8. Base of vessel of buff Surrey ware with frilled decoration. Bright green glaze splashed on underside of base, and traces of green glaze dripped down body, and (not shown) fragments of four similar bases. 1350-1425, and 22 plain body sherds of buff Surrey ware.

9. Shoulder of Cheam ware jug in hard buff fabric; exterior surface above girth coated with mottled green glaze. Similar in date to buff Surrey wares.

10. Base of Cheam ware vessel in hard, grey-buff fabric.

11. Tripod cooking pot in hard, smooth, grey ware, surfaces fired dull orange. Internal surface coated with mottled green glaze. Probably fifteenth century.

Not illustrated (mainly Surrey wares):

10 fragments bases in off-white wares with green glaze on interior, fifteenth century; 1 base fragment in orange ware with green glaze on white slip, fifteenth century; 21 sherds in grey or buff with external green or yellow glaze.

12. Lid in East Anglian red ware, decorated with irregular blobs of creamy slip. 1425-1500.³⁶

13. Everted rim cooking jar in rough hand-made dark grey shell-tempered ware; patches of exterior surface fired pink-brown. Twelfth century.

Feature 20 (Cutting 19, but itself cut by brick pit to east of Tudor Cesspit)

14. Rim of cooking jar in hard grey gritty ware, surfaces fired dull brown. Heavily tempered with crushed shell. Early thirteenth century, and (not shown) sherd of similar ware.

15. Bowl in buff Surrey ware. Splash of green glaze on underside of flange.

16. Bowl in buff Surrey ware. Internal green glaze commencing below inner lip.

17. Pitcher in buff Surrey ware. Traces of green glaze splashed on exterior.

18. Jar in buff Surrey ware, surfaces pinkish-buff in colour. Interior of rim from lip to point of narrowest diameter coated with mottled green slip.

19. Base of vessel in buff Surrey ware with internal mottled green glaze, and (not shown) a similar base, showing signs of burning on both surfaces.

20. Lid in buff Surrey ware.

Surrey wares not illustrated: 7 sherds with external green glaze; 3 sherds with external olive glaze; 1 sherd with external red slip trail decoration; 2 sherds with internal green glaze; 13 plain sherds.

21. Rim in grey-brown ware with red surfaces coated with dark green glaze. Late fifteenth-early sixteenth century. Sixteenth century wares not illustrated: 5 sherds grey ware with green glaze; 1 fragment late sixteenth century Westerwald ware.

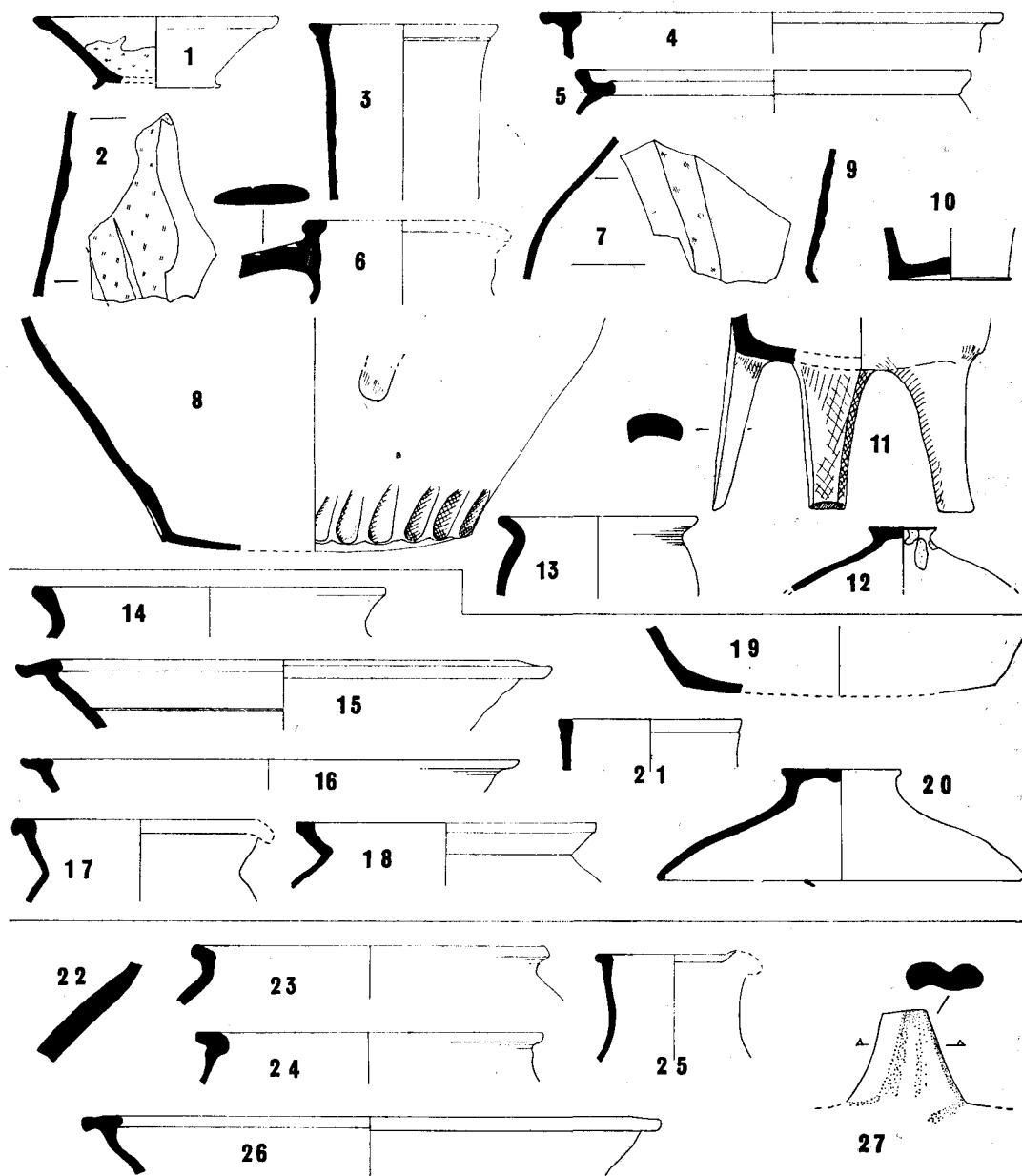


Fig. 13. Arundel House. Medieval Pottery. Nos. 1-27, pp. 233, 236 ($\frac{1}{4}$)

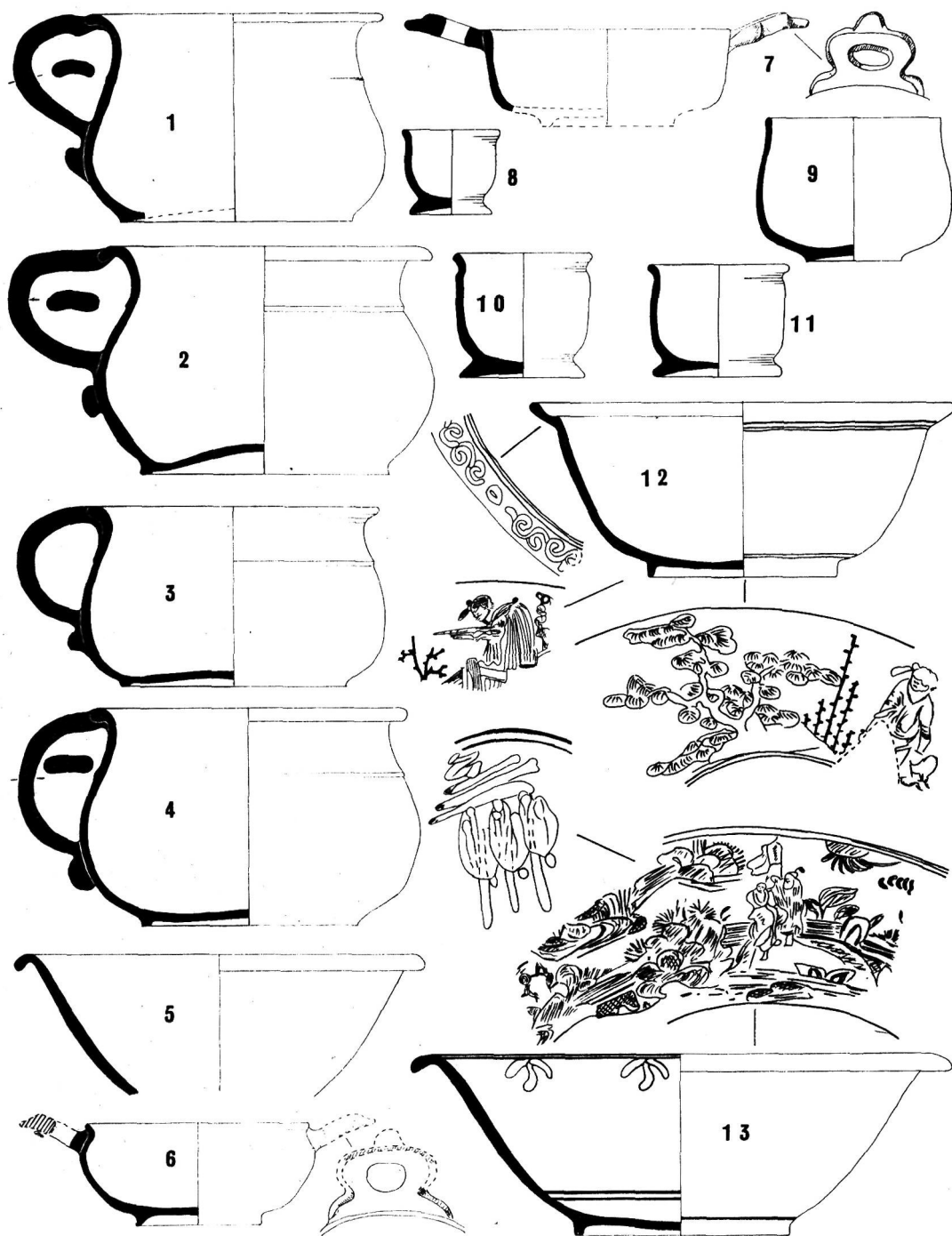


Fig. 14. Arundel House. Delft ware. Nos. 1-13, p. 236 ($\frac{1}{4}$)

Feature 23 (Dark soil on west side of and cut by northerly continuation of wall west of vault.)

22. Shoulder sherd of large cooking pot in hard fairly smooth dark grey fabric with brown surfaces. Exterior surface shows very light rilling; interior surface very rough and flaked. Possibly Middle Saxon (eighth-ninth century).

23. Cooking jar in hard, gritty, dirty-grey fabric. Twelfth century, and (not shown) one body sherd of similar fabric.

24. Wide-necked jar in buff Surrey ware.

25. Pitcher in buff Surrey ware (handle not surviving).

26. Bowl in buff Surrey ware.

- Buff Surrey ware not illustrated: 8 sherds with external green glaze; 1 plain sherd.

27. Spout of dripping pan. Late fifteenth century.

The collection of pottery described in the following section (Figs. 14–18), comprising English and Dutch Delftware and Chinese porcelain of the K'ang H'si dynasty, was not recovered under controlled excavation conditions. It was located during site works by the building contractors and set aside for our examination. In view of the very close dating obtained from parallel specimens—most pieces can be reasonably securely dated to the period 1680–1700—it may be assumed that the collection does form a group deposited together, and it has been felt that this, the interest attaching to several of the pieces, and the fact that this seems to be the first time that such a group from London has been published, has made the recording of the larger portion of the group worthwhile.

FIG. 14:

Plain Delftware Chamber-pots

1. White glaze with creamy-grey tinge.
2. White glaze with pink tinge.
3. Plain white glaze.
4. Plain white glaze, and (not shown) several incomplete examples of similar vessels.

Other Delftware

5. Bowl with plain white glaze.
6. Two-handled bowl with plain white glaze.
7. Two-handled bowl with plain white glaze.
8. Small drug jar with plain white glaze, and (not shown) fragments of a similar jar.
9. Pot with creamy glaze, covered with brown speckles.
10. Drug jar, white glazed with small blue speckles.
11. Drug jar with plain white glaze.
12. Bowl or chamber-pot with sky-blue glaze. If of English make, the shape is a rare type and the likelihood is that it is Dutch, later part of the seventeenth century. The decoration, on exterior only, is in monochrome dark blue. Under the everted rim is a cornice of crude whorls either side of a circle. The pattern is in solid blue, but for illustration here only the outlines have been shown. On the body, two panels of Chinese-style decoration survive; one shows a figure in a rocky landscape with a tree and plants, while the other shows another figure, possibly a servant.
13. Bowl or chamber-pot. Plain white glaze, with Chinese-style decoration in dark blue; on the exterior, a blue horizontal line above the foot-ring, and two further horizontal blue lines below the everted lip. On the body, two figures in a Chinese garden. On the interior, two horizontal lines immediately below the lip, with stylized flower-like motifs suspended from the lower at 70 mm intervals. On the interior of the base, within two concentric circles, a pattern of uncertain subject, possibly flower-buds. On the underside, a "maker's mark" consisting of one thick brush-stroke, and (not shown), base fragment of a similar vessel. Frankfurt, 1670–90.

FIG. 15:

1. Bowl. White glaze with internal band of geometric decoration in blue, between horizontal blue lines, one above and two below; and, on interior of base, within two concentric circles, a stylized floral design in blue (part only surviving). Intensity of blue indicated by density of shading. Probably English, late seventeenth century.

2. Small bowl or cup. Eggshell blue glaze. Exterior decoration in monochrome dark and light blue, with Chinese style design, probably of two opposing medallions showing scenes, separated by panels of reticulated design. Probably Dutch, late seventeenth century.

3. Cup. Eggshell blue glaze with external dark blue decoration of flowers in foreground and landscape in distance, between two horizontal blue lines. Probably Dutch, late seventeenth century.

4. Cup with pale blue glaze. External decoration, in dark blue, of a dove in a floral landscape. Probably Dutch, late seventeenth century.

5. Bowl with pale blue glaze. Interior decoration in dark blue: upper panel, below and abutting horizontal blue line, of concentric semicircles; and below, five further horizontal blue lines; decoration on interior of base of stylized bunch of grapes; outline of grapes, and stems, in black, grapes filled-in in blue, with a central dark blue blob. Probably Dutch, late seventeenth century.

6. Shallow two-handled dish. Very pale blue glaze with external decoration, in dark blue, of insect approaching flowers. Blue blob decoration on handles. On underside, maker's mark, comprising spray of plants and ligatured letters of name De Pauw ("the Peacock") of Delft. (The factory was founded in 1651 and the piece is either somewhat earlier than 1674 or somewhat earlier than 1690.)

FIG. 16:

1. Bowl with pale blue glaze. External decoration, in dark blue, of alternating vertical streaks and facing crescents. Internal body decoration, in dark blue, of stylized patterns in panels. Internal base decoration too fragmentary for illustration. Dutch, second half seventeenth century.

2. Lid-seated vessel. Fine hard white glaze. External blue floral decoration with small leaves touched up in gold. Dutch, second half seventeenth century.

3. Handled lid with blue-tinged white glaze. Light and dark blue decoration of stylized flowers on upper surface. Two blue concentric circles around body, at junction of flange, and two blue circles around base of handle (only one shown, due to occlusion by expanding top of handle). Probably English, late seventeenth century.

4. Lid with pale blue glaze. Fragment of surviving leaf and floral decoration on upper surface. Probably English, late seventeenth century.

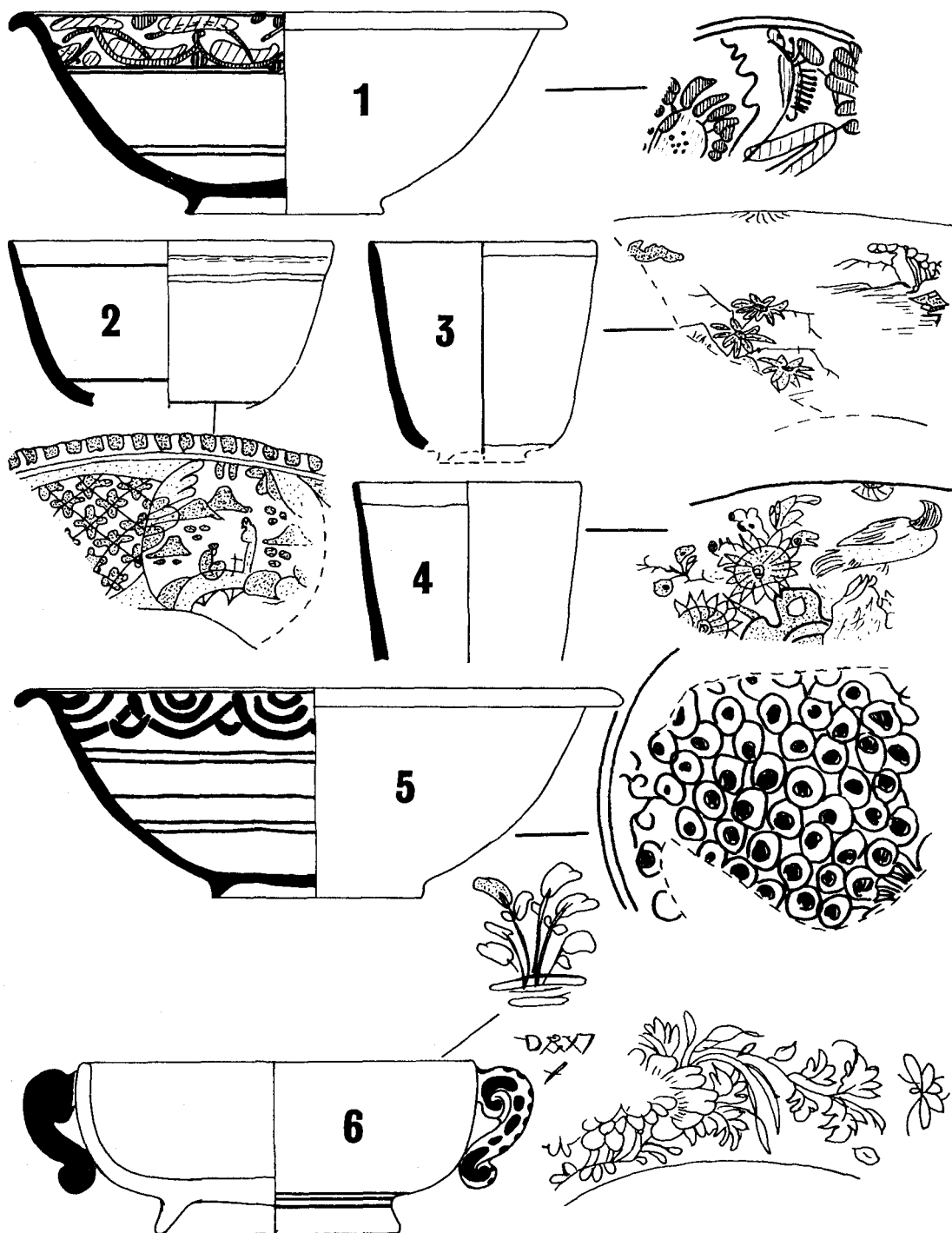


Fig. 15. Arundel House. Delft ware. Nos. 1-6, p. 236 ($\frac{1}{2}$)

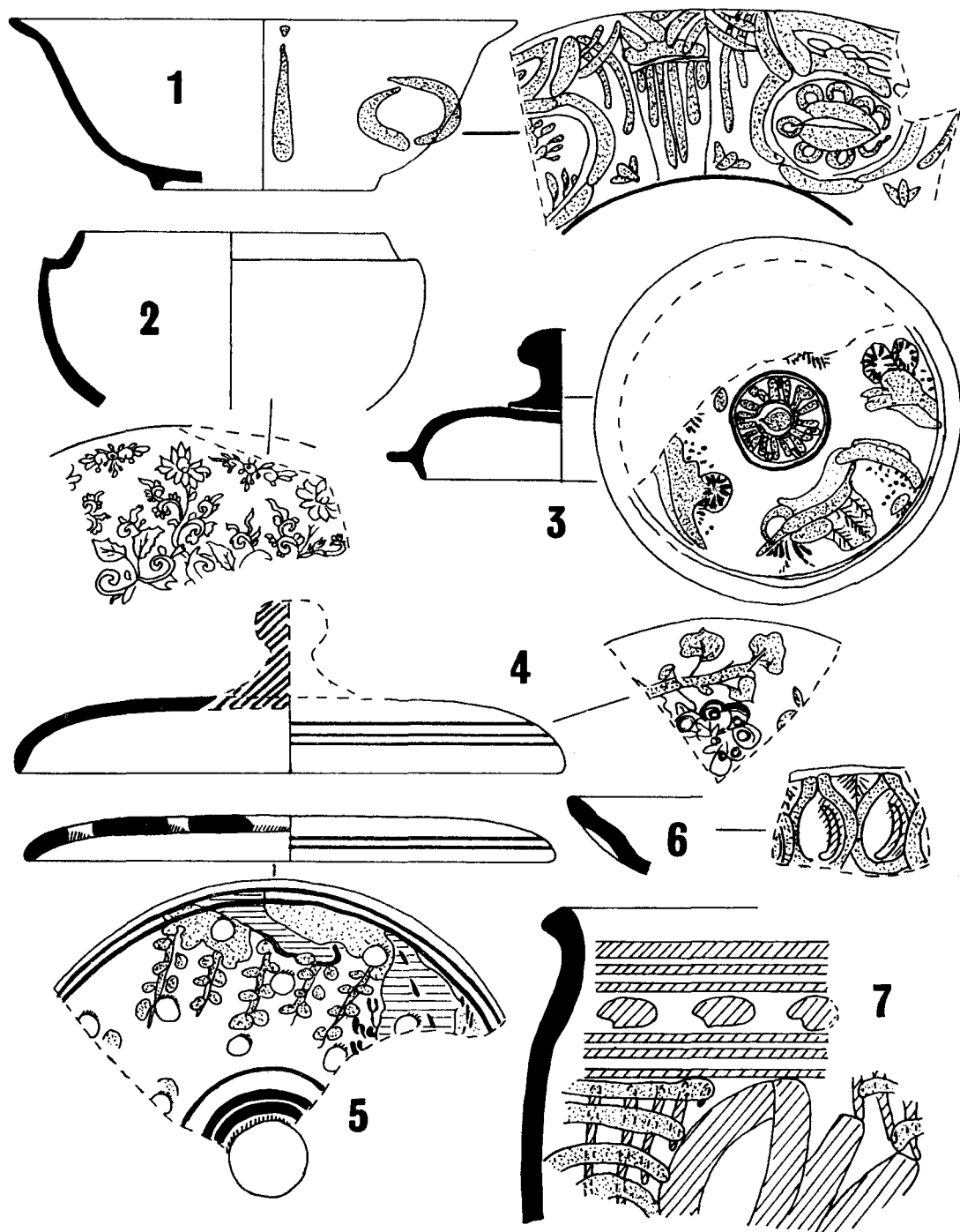


Fig. 16. Arundel House. Delft ware. Nos. 1-7, p. 237, 239 ($\frac{1}{2}$)

5. Flower-holder with large central hole and subsidiary holes on body. Pale blue glaze. Stylized plant decoration on upper surface between bands of concentric blue circles. Probably English, late seventeenth century. (Stippling — dull brown. Hatching — dark blue).

6. Rim fragment of bowl or dish. Indented bosses along rim with dark blue internal decoration, on pale blue glaze. Probably Dutch, late seventeenth century.
7. Drug or storage jar, diameter uncertain. White glaze with painted decoration of ochreous (stippled) and pale blue (hatched).

CHINESE PORCELAIN:

The first Chinese ware to reach European markets was popularly called "Kraak" ware after the Portuguese ship captured in 1603 by the Dutch bearing a cargo of the wares. These created a sensation in Europe, where the cargo was sold for 3,000,000 guilders, and the way was immediately opened for a huge trade between Europe and the Orient.

The porcelain from the Arundel House group comprised teacups, plates and bowls of the K'ang H'si Dynasty (1662-1722). These wares were imported into Britain in great quantity. The markings are well-known types of Chinese potters, comprising both writing and symbols. The pottery is contemporary with the Delftware described above, by which it is freely imitated. Generally, these wares reflect those to be found on high-class tables (tea was expensive at that time) in the late seventeenth century. M. Archer Esq., Ceramic Dept., Victoria and Albert Museum, considered that the group contained a larger proportion of Chinese Wares than normal.

The wares are made of a fine hard white paste, usually coated with a white glaze.

FIG. 17:

1. Teacup. White glaze with blue decoration. On exterior, eight panels (one shown) with repetitive floral design, rising from base ringed with sixteen ovals or stylized buds; on interior, below lip, a narrow hatched band between two horizontal lines; on bottom of interior, a plant with flower and leaves (shown on left half of cup); on underside, maker's mark of plant spray within two concentric circles (shown on right half of cup).
2. Teacup. White glaze with blue decoration. On exterior, two horizontal bands below lip, with below, on body, floral and leaf decoration; around the foot-ring, three horizontal bands; on the underside, a maker's mark of two fishes (symbol of conjugal harmony) within two concentric rings. On the interior, a narrow hatched band below the lip, and on the base, within two concentric circles, a flower.
3. Teacup. White glaze with blue decoration. Surviving panel on exterior shows fish between two geometric patterns, below two horizontal lines; on underside of base (shown at full size) maker's mark (Chinese characters *sheng yu ya chih*, "Elegantly made for holy friends"). On interior, two horizontal lines below lip; on bottom, geometric design similar to those on exterior, within two concentric circles.
4. Teacup. White glaze with blue decoration. On exterior, two horizontal lines below lip, and three around foot-ring. On body, flower design, fragmentary only and not shown. On interior, two horizontal lines below lip; on bottom, plants within two concentric circles. On underside, maker's mark in Chinese characters (shown at approximately three-quarters scale), also within two concentric circles.
5. Teacup. White glaze with blue decoration. On exterior, surviving fragment of flower and leaf design; on underside, Chinese characters (maker's mark) within two concentric circles. On interior, at lip, narrow horizontal hatched band with two horizontal lines below; on bottom, a small plant motif (shown in left half of cup).
6. Teacup. White glaze with blue decoration. External design of (probably) four figures; only two surviving, of a child or dwarf and a woman; on the underside, maker's mark in Chinese characters (shown at three-quarters scale). On the interior, a horizontal band of geometric design below the lip, and, on the bottom, within two concentric circles, a landscape with a pavilion, sea and distant mountains.

7. Teacup. White glaze with pale blue decoration. On exterior, a female figure, reclining or kneeling, holding a spray of flowers, and (not illustrated) an incompletely surviving floral panel and another fragmentary figure; other figures missing. On underside, maker's mark in Chinese characters, within two concentric circles. On the interior, below lip, three surviving motifs resembling knots or bows (probably six originally); on the bottom, a flower bud motif. And (not shown) fragments of four teacups of similar style.

FIG. 18:

1. Teacup of type known as "Batavian Ware", named after the Dutch trading station in Batavia. Chocolate-coloured exterior surface. Interior white-glazed, with two horizontal blue lines below lip and a blue stylized flower on the bottom.
2. Teacup in Batavian ware. White glazed, with exterior lip in chocolate (stippled). Remainder of interior (hatched band and two horizontal lines below lip) and exterior (horizontal hatched band and two lines below chocolate band, and diamond and leaf body decoration) in blue. Not illustrated: fragments of K'ang H'si bowl in "egg-and-spinach" ware, painted with blotches of green, brown and yellow.
3. Bowl. Very pale blue glaze with dark blue decoration. On exterior, two horizontal lines below lip; around base, stylized petals or blobs; round foot-ring, three horizontal lines. On interior, below lip, a narrow band of flower and leaf decoration edged by one horizontal line above and two below; on the bottom, a large flower with leaves and tendrils. This is typical of the wares which were extensively imitated by the Delftware factories, examples of which also appeared in this group (see above).
4. Bowl, exterior coated with mottled brown glaze. Interior glazed pale blue and decorated in darker blue with leaf and flower design below a rim-band of scalloped lines.
5. Shallow bowl, white glazed with two horizontal red lines on inner rim, below lip. Interior of body and dish decorated with a random scatter of five-petalled red flowers and small green leaves (the latter now almost all faded to brown). On underside, within two concentric blue circles, and itself in blue, maker's mark in Chinese characters.

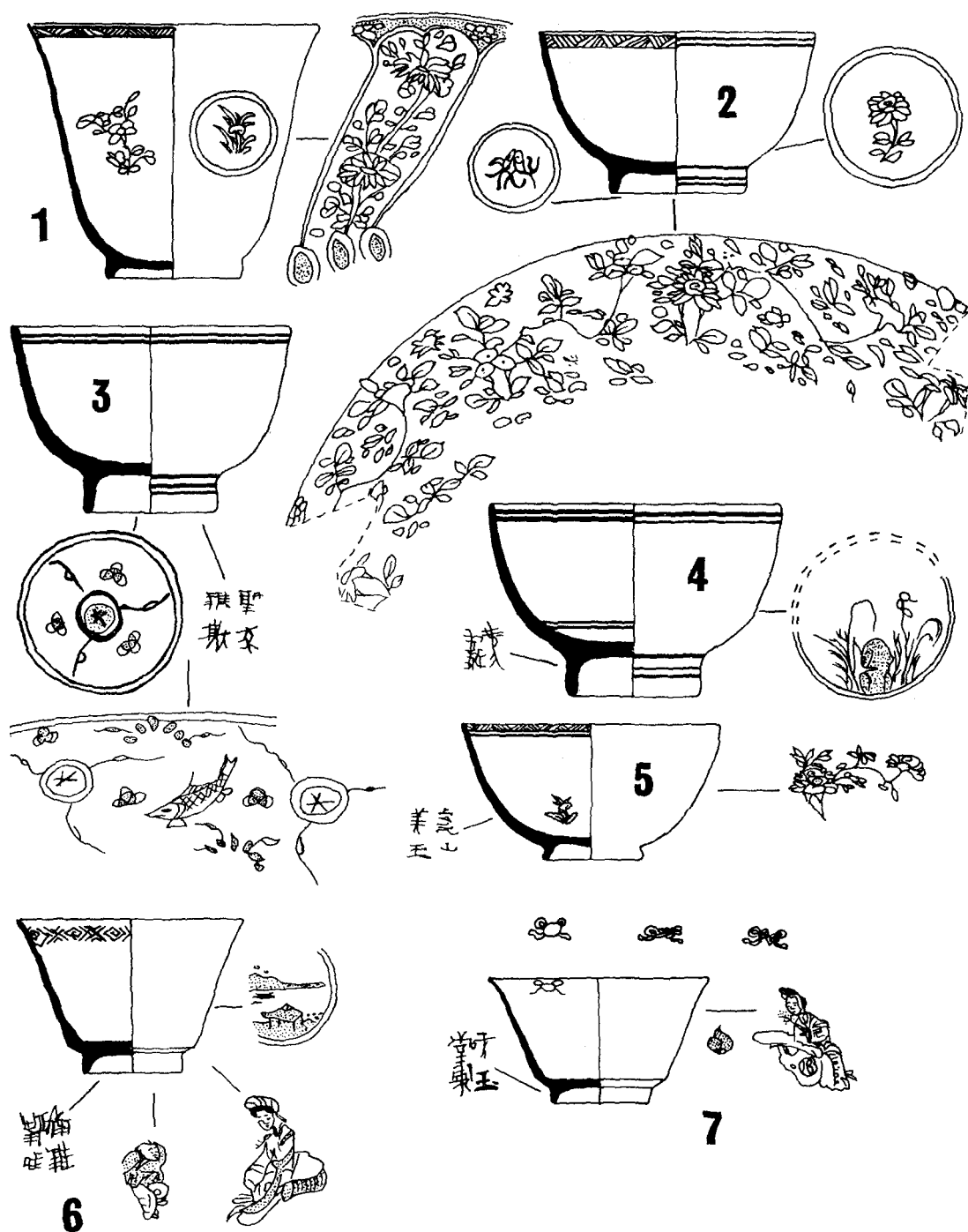
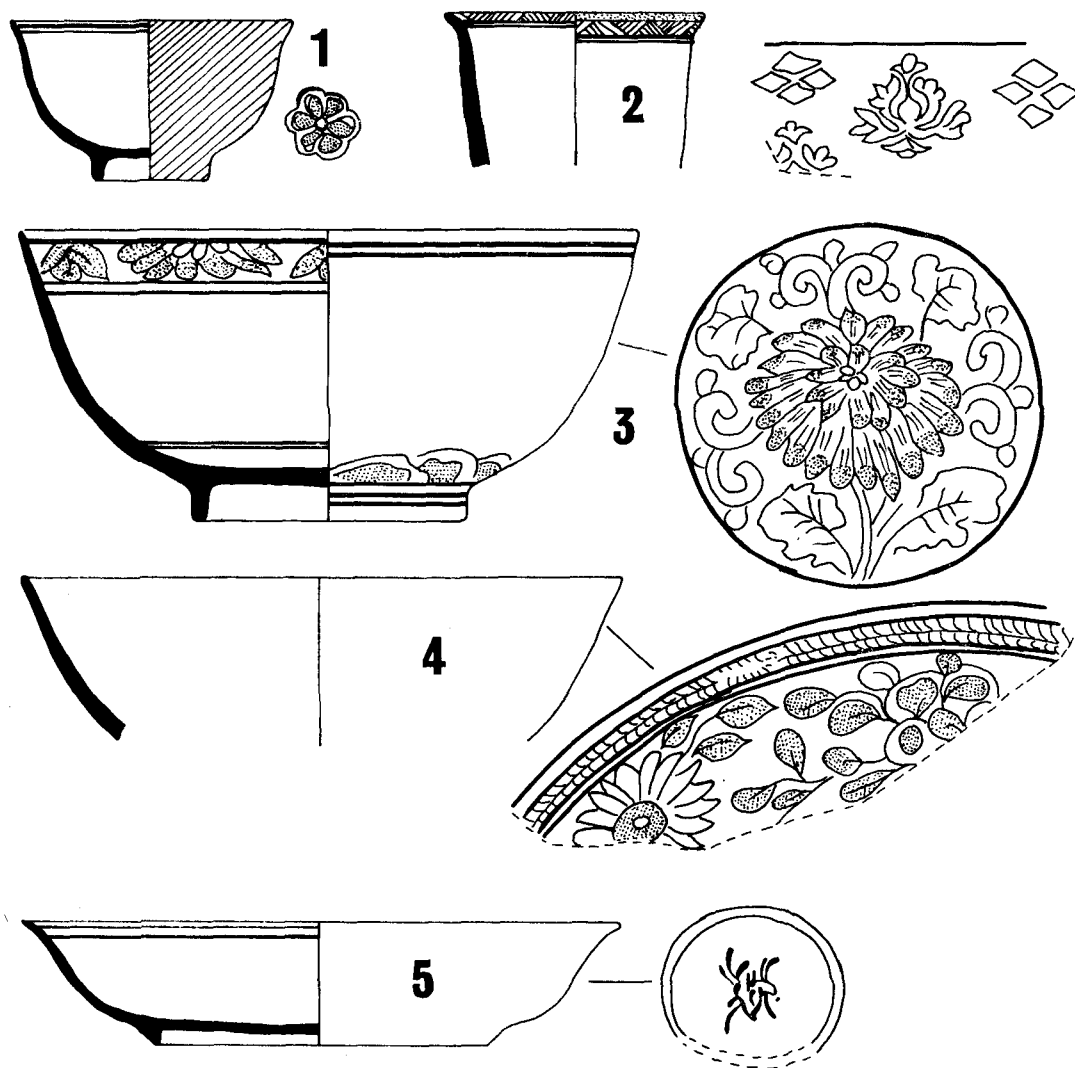


Fig. 17. Arundel House. Chinese Porcelain. Nos. 1-7, p. 239 ($\frac{1}{2}$)

Fig. 18. Arundel House. Chinese Porcelain. Nos. 1-5, p. 239 ($\frac{1}{2}$)

SMALL FINDS

FIG. 19:
Glass

1. Lattimo glass goblet. Colourless glass, with two external raised horizontal bands of milk-white decoration; each band edged with narrow strips and the space between cross-hatched with broad S-shaped markings, the upper layer comprising reversed S's and the lower layer normal S's; all these markings within the fabric, beneath the raised bands, as shown in section. Below these bands, a trace of colourless glass appliqué decoration. The slightly primitive character of the vessel indicates a date of mid to later sixteenth century. Probably Venetian. From the Tudor Cesspit.
2. A fragment of a similar Lattimo glass goblet, of colourless glass with milk-white surface decoration of two

horizontal bands overlying a pattern of diagonal bands, the latter coloured over a very pale pink. This could be a slightly later piece than (1) above. Probably Venetian. From the Tudor cesspit.

3. Rim of colourless glass jug or beaker. Second half sixteenth-early seventeenth century, most probably the former. Possibly Venetian. From the Tudor cesspit.
4. Neck and base (two found) of green glass urinal. Glass badly decayed. Similar vessels of Wealden glass date up to 1600. From the Tudor cesspit.

Not shown:

From the Tudor cesspit, 9 fragments of decayed window glass, thickness 2 mm or 3 mm, size varying from 30 mm × 25 mm to 60 mm × 55 mm.

From the Delftware and Chinese Porcelain group, remains of five English lead-glass wine glasses, c. 1690.

Iron

A number of iron objects were recovered from several of the levels and features, predominantly nails. Other objects were generally in such an advanced state of rust as to be unrecognizable. One half of a small broken horseshoe, 90 mm long and possibly a similar width, was identified from Feature 19, the fifteenth century level into which the brick pit was cut. The only objects worthy of illustration were the knife-blade and tang shown in Fig. 21: 6, and:

5. Fifteenth or sixteenth century double candle holder and pricklet from Feature 13, dated by pottery to the late fifteenth or early sixteenth century.

Mason's Marks

6. Arrow-shaped. Engraved on the underside of the northernmost greensand springer on the west side of the Vault; and closed cross, engraved on the underside of the second greensand springer from the north of the east wall of the Vault.

Lead Piping

7. 1 m length, consisting of two soldered lengths of piping of different bore. Drawing shows the soldered joint, section through larger calibre pipe (smaller calibre pipe was simply round) and two seal-marks, on opposing sides of the smaller calibre pipe, but located further down the pipe than illustrated. From beneath floor of main east-west range beneath Norfolk Street. Probably contemporary with the main building (second half of sixteenth century) though of course could have been inserted at any time prior to the date of destruction.

FIG. 20:**1. Leather shoe**

Dated to the fourteenth or early fifteenth century. From Feature 13, dated to about 1500.

Textiles

Several textile fragments were found in Feature 13, the fibres from the two largest pieces being identified as wool.

Other small finds

2. Bronze book-clasp. From Tudor cesspit.
3. Bronze dress-hook (cf. Museum of London Acc. 11121. sixteenth century, from Tabard Street, London). From Tudor cesspit.

4. Bronze pin, with thick shank, tapering slightly towards tip (missing). From Tudor cesspit.
5. Smaller bronze pin. From Tudor cesspit.
6. Bronze thimble. From Tudor cesspit.
7. Iron knife-blade and tang. From Feature A-1 (early sixteenth century layer cut by Tudor cesspit).

The coins

The report on coins 2-4 was kindly provided by S. E. Rigold Esq.

1. House of Constantine the Great, period A.D., 335-41 reverse type GLORIA EXERCITUS, soldiers with one standard. Poor condition. Unstratified, above Layers A-1/A-6.
2. Billon coin of Philip Duke of Burgundy—Philip "le Hardi" (1363-1404) or Philip "le Bon" (1418-67), but not Philip de Rouvre (1350-61). Dia. 19 mm, mint uncertain but it should, with title of Duke alone, and not Count, be of Burgundy proper (not Franche Comté) or, more probably, the Netherlands; the legend suggests Flanders. Obv. PHILIPP DVX BVRG, shield quartering "Burgundy Ancient" with one lys in each quarter for "Burgundy modern". Rev., cross paty, pellet in one quarter, legend unclear but hard to make into DIVIONE (Dijon); it may end (FLAN)DRIE. There seems to be some uncertainty about the attribution of such deniers, etc.; if Philip le Bon, certainly early in his reign, or else late in the reign of Philip le Hardi. From Feature 13.
3. Fragment of French official jeton, very corroded, but original diameter apparently about 24 mm which, with what remains of the type, rather suggests a date towards 1370. Obv. indecipherable. Rev., four-strand cross flory, quadrilobe in centre, rosettes in angles. Feature 13.
4. French official jeton, dia. 26 mm, segment deliberately cut out of edge, which is unusual. One of the series (without inner ring on reverse) common in England in the late fourteenth and early fifteenth centuries (c. 1375-1415?). The lettering suggests a late example, c. 1400-10. Obv. Crown, 3 pierced cinquefoils on band, pierced cinquefoil or quatrefoil stops. + AVE MARIA. GRACIA.PN. Rev. Elaborate cross flory in quadrilobe, A V E M between annulets in spandrels. From Feature 19.

THE ANIMAL BONES

BY JULIET CLUTTON-BROCK (British Museum, Natural History)

Feature 20 (late fifteenth century)

Oryctolagus cuniculus (rabbit)—2 bones.
Sus (domestic)—3 adult, 6 juvenile bones.
Capreolus capreolus (roe deer)—2 bones.
Dama dama (fallow deer)—1 bone.
Bos (domestic)—54 bones and teeth, mostly adult.
 Sheep/goat—50 bones and teeth, mostly adult.
Tudor cesspit (c. 1550-75)
Sus (domestic)—2 adult, 6 juvenile teeth and bones.
Dama dama—3 adult bones.
Ovis (domestic)—1 part skull and one abnormal tibia.
 Sheep/goat—c. 70 bones and teeth.
Bos (domestic)—c. 50 bones and teeth, mostly adult.
Oryctolagus cuniculus—2 bones.
Rattus rattus—5 mandibular rami, 1 part skull and limb bones, some juvenile.

Feature A-6 (late fifteenth-early sixteenth century)

Sus (domestic)—7 adult bones and teeth, 1 juvenile.

Bos (domestic)—8 adult bones and teeth, 6 juvenile.

Sheep/goat—9 adult bones and teeth, 1 juvenile.

Feature A-1 (as A-6)

Sus (domestic)—8 adult bones, 5 juvenile.
Capreolus capreolus—1 proximal end of a metatarsal, adult.
Bos (domestic)—44 adult bones, 9 juvenile. 1 proximal end of a femur with exostosis of the bone around the head.
 Sheep/goat—c. 68 bones and teeth adult, 6 juvenile. Also 1 proximal end of a radius which is abnormal and has exostosis of the bone around the epiphysis.
Oryctolagus cuniculus—1 pelvic bone.
 Frog/toad—limb bones.

Feature 13 (fifteenth century)

Felis (domestic cat)—part of the skull, lower jaw, atlas and vertebrae of a small cat. Dentition complete. Adult.
Sus (domestic)—1 humerus.
Bos (domestic)—1 lower limb (articulating 1st, 2nd and 3rd phalanges).
Ovis (domestic)—part skull and teeth and bones.

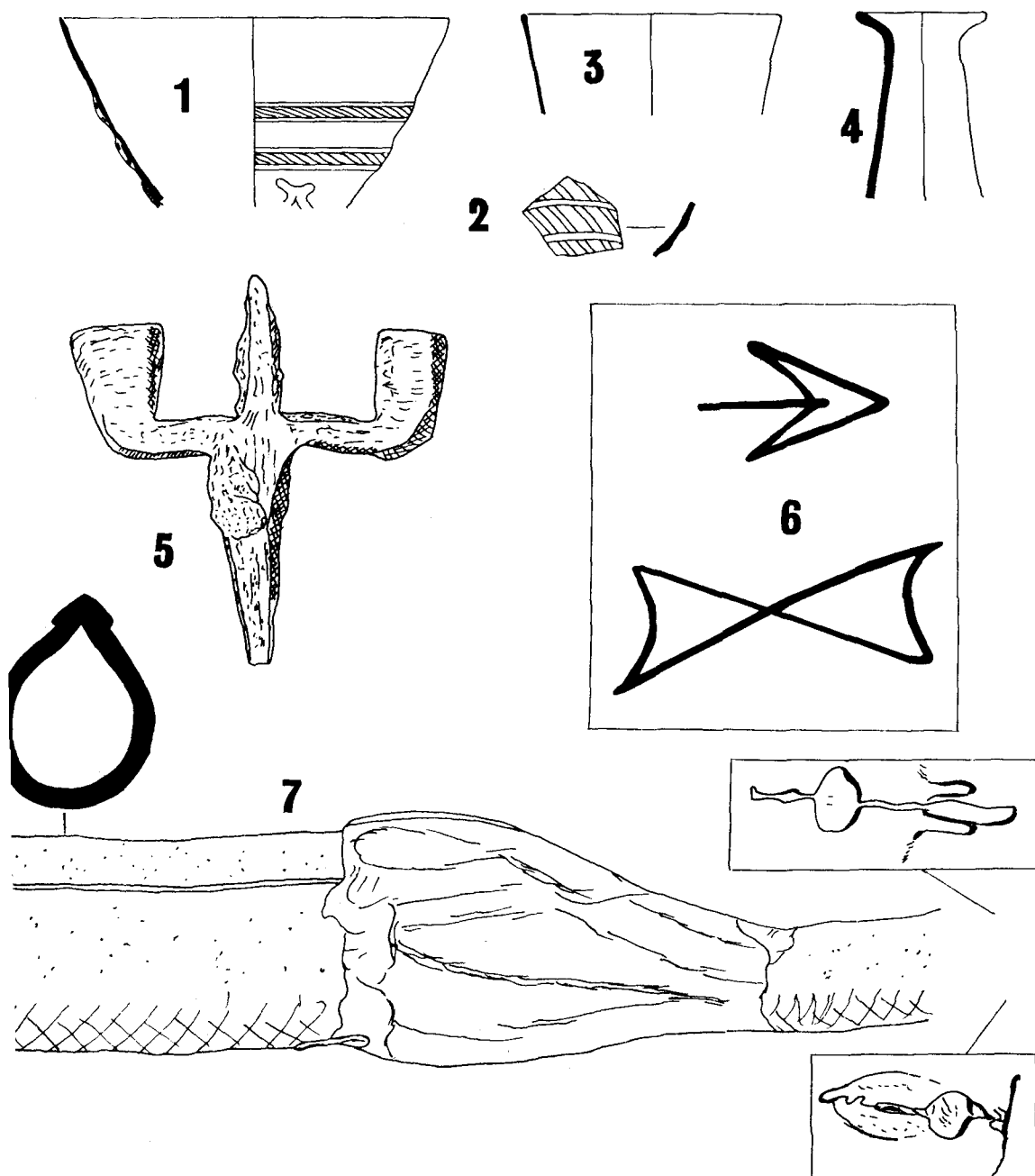


Fig. 19. Arundel House. Glass and small finds ($\frac{1}{2}$)

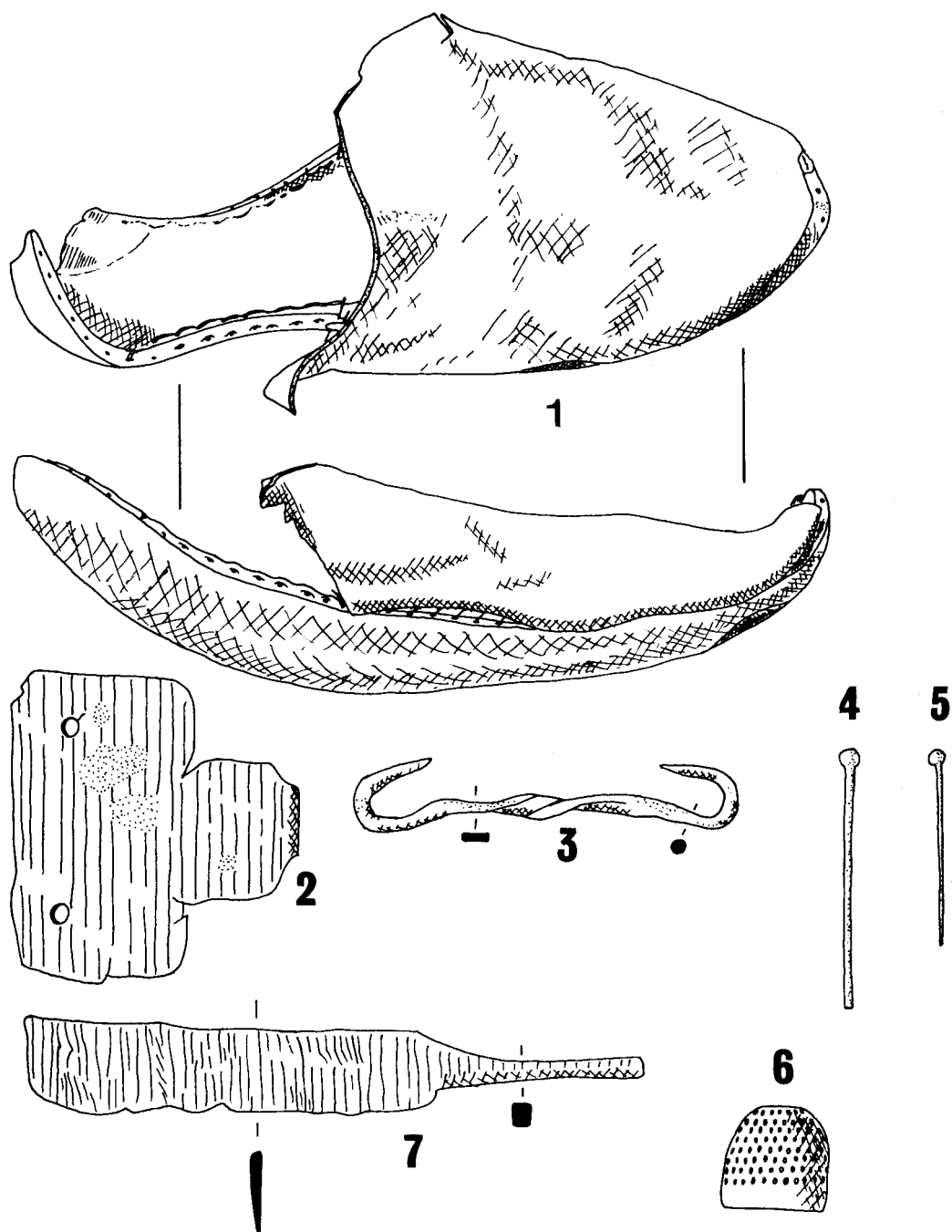


Fig. 20. Arundel House. Small finds all (1/1) except No. 1 (1/2)

Feature A-7 (late fifteenth–early sixteenth century)

Sus (domestic)—1 part mandible and maxilla, 9 adult bones, 3 juvenile.

Bos (domestic)—38 adult bones and teeth, 14 juvenile.

Sheep/goat—25 adult bones and teeth, 5 juvenile.

Feature 19 (late fifteenth century)

Sus (domestic)—1 tooth, 6 adult bones, 5 juvenile.

Bos (domestic)—c. 116 bones. Mostly fragments. Two bones were unusually large, 5 juvenile.

Oryctolagus cuniculus—1 mandible.

Human Remains—Identified by Miss R. Powers.

Feature 19

Distal end of the femur of a large adult male.

Shafts of right tibia and fibula of an adolescent, probably a male. Both the femur and the tibia are slightly pathological.

There is no positive evidence for goat in the collection whereas both horned and hornless sheep are present.

A count of the total number of animal bones shows that sheep and cattle bones are in the majority and nearly all these are from adult animals. Pigs were also extensively eaten and a greater proportion of these bones are from juvenile animals. It must be remembered, however, that pig meat would be eaten mostly as boneless bacon and salt pork so a count of pig bones is never a true reflection of the amount of meat eaten.

Roe and fallow deer were killed for food and kept in deer parks for this purpose. Rabbits were also bred extensively for food, during Tudor times.

The remains of the black rat are an interesting find. The black rat was introduced to Britain, probably during the twelfth century. (The brown rat was not brought in until the eighteenth century.) By Tudor times the black rat was well established and was of course responsible for the plague.

Measurements of a selection of the animal bones were also taken. They showed that the sheep and pigs still belonged to the small unimproved breeds that were common in medieval Britain. The cattle too, were mostly fairly small animals, but there were also some very large individuals. These were probably oxen.

In Tudor times the common practice was to use the cattle for milk and draught on the farms and then to drive them on the hoof to the markets when their useful life was nearly at an end.

The abnormal ox femur from Feature 1 suggests that this animal was used for draught and was perhaps overlaid at too young an age. This resulted in an overgrowth of the bone around the head of the femur.

Sheep too were driven to market as adult animals. A review of husbandry practices in Tudor times is given by Trow-Smith.³⁷

(All animal remains brought to the Museum for identification from archaeological excavations are now included in a computer-based catalogue being compiled by the writer, and all details of the above, including measurements of bones may be found there.)

THE BIRD BONES

BY GRAHAM S. COWLES

(British Museum, Natural History)

Individuals represented:

Domestic Goose	<i>Anser anser</i>	2
Mallard	<i>Anas platyrhynchos</i>	1
Merlin or Kestrel	<i>Falco columbarius</i> or <i>F. tinnunculus</i>	1
Kestrel	<i>Falco tinnunculus</i>	1
Domestic Chicken	<i>Gallus gallus</i>	5
Partridge	<i>Perdix perdix</i>	1
Snipe	<i>Gallinago gallinago</i>	1
Song Thrush	<i>Turdus philomelos</i>	1
?Blackbird	<i>Turdus ? merula</i>	1
Raven	<i>Corvus corax</i>	1

Feature A-1

Domestic (Greylag) Goose *Anser anser*

Tibiotarsus, incomplete left.

Tibiotarsus, right from an immature bird.

Femur, incomplete right.

Clavicle, incomplete.

Carpometacarpus, incomplete right.

2, Phalanges from the toes.

Domestic Chicken *Gallus gallus*

Clavicle.

3 Scapulae, left.

Tarsometatarsus, left, a young bird most probably

Domestic Chicken.

Tarsometatarsus, right, a very young bird most probably

Domestic Chicken.

Tudor cesspit

Domestic (Greylag) Goose *Anser anser*

Humerus, left.

Domestic Chicken *Gallus gallus*

Femur, right.

Scapular incomplete left.

Ilium and ischium from right side of pelvis.

Ischium right.

Humerus, right.

Carpometacarpus, right.

Tarsometatarsus, incomplete left.

Synsacrum

Femur, incomplete and immature left, possible Domestic Chicken.

Partridge *Perdix perdix*

Coracoid, left.

Raven *Corvus corax*

Tarsometatarsus, right.

Feature A-6

Domestic (Greylag) Goose *Anser anser*

Tibiotarsus, right.

?Domestic Chicken ?*Gallus gallus*

Ilium, right.

Feature A-7

Domestic (Greylag) Goose *Anser anser*

Phalange from right wing.

Domestic Chicken Gallus gallus

Femur, right.
Femur, right proximal end.
Tibiotarsus, incomplete left.

*Feature 13**Domestic Chicken Gallus gallus*

Ulna, right.
Tarsometatarsus, incomplete left.

Merlin or Kestrel Falco columbarius or F. tinnunculus

Ulnae, left and right.

Kestrel Falco tinnunculus

Pelvis, incomplete.

Snipe Gallinago gallinago

Tarsometatarsi, left and right.
Ulnae, left and right.
Tibiotarsi, distal ends, left and right.
Carpometacarpi, left and right.

Song Thrush Turdus philomelos

Tarsometatarsi, left and right.

?Blackbird Turdus ? merula

Tarsometatarsus, left.

*Feature 19**Greylag Goose, probably Domestic Anser anser*

Tarsometatarsus, left.
Coracoid, left.
Lower mandible, left side (dentary, symphysis and surangular).
Lower mandible, left side (dentary and symphysis).
Lower mandible, right side (dentary, possibly belongs to the one above).

Mallard (by size probably Domestic) Anas platyrhynchos

Tarsometatarsus, left.
Femur, incomplete right.
Coracoid, left.
Humerus, left.
Humerus, right incomplete.
Ulna, right.
Lower mandible, left side (dentary).
Domestic Chicken Gallus gallus
Humerus, left.
Tarsometatarsus, right incomplete.
Tarsometatarsus, left.
Coracoids, left and right.
Coracoid, incomplete right.
Tibiotarsus, incomplete right.
Tibiotarsus, left.

*Feature 20**Domestic (Greylag) Goose Anser anser*

Femur, left.

Domestic Chicken Gallus gallus

Tarsometatarsus, left.
2 Sterna, incomplete.
2 Tibiotarsi left (one incomplete).
Humerus, right.
Femur, right.
Scapular, incomplete left.

Mallard Anas platyrhynchos

Carpometacarpus, incomplete left.

The variation in bone size of the Goose and Mallard suggests that these were bred in domestication. The Partridge, Snipe, Blackbird and possibly Song Thrush would have been caught in the wild or purchased specially for the table, although the last two species could also have been in the close vicinity of the house, as garden birds. The Raven was a common scavenger of the time and is often found amongst cesspit debris, presumably having met with some sort of accident.

The two ulnae from Feature 13 closely fit the Museum specimens of Merlin, although some doubt must remain due to the surface erosion of the bones. It is unlikely that Merlin would have been in the area as a wild bird; however it was frequently kept for falconry and highly respected for its boldness when hunting. The remains of a Kestrel were also found in Feature 13; this could have been a wild bird of the area but, like the Merlin, it was a bird kept by falconers and was used to train novice falconers in the art of handling birds of prey.

THE FISH BONES

BY ALWYNE WHEELER

(British Museum, Natural History)

Bones identified:

Feature A-1

One centrum Flounder *Platichthys flesus*.

Tudor cesspit

Two part centra Cod *Gadus morhua*.

One anal spine Flounder.

One part centrum—pleuronectic, probably Flounder.

One centrum Ling *Molva molva*.

Feature 13

One branchial bone Cod.

Feature 19

One anal spine Flounder.

The Ling bone from the Tudor Cesspit is of interest. This was not likely to have been captured within the southern North Sea (*i.e.* by a local fishery). Perhaps it was a dried salted import from a northern fishing port. Both Cod and Flounder would have been available to fisheries in the outer Thames estuary (Cod mainly in winter) and Flounders could have been caught in the river in London in Tudor times.

LIST OF SHELLS FROM THE EXCAVATIONS:

Feature Oyster Cockle Mussel Whelk Snail Other

A-1 124 2 1 8 limpets
attached to
oyster shell.

Tudor

cesspit 83 8 5 2 1

Feature Oyster Cockle Mussel Whelk Snail Other

A-7 32 8
13 56 1
19 128 19
20 22

THE CLASSICAL MARBLES FROM THE ARUNDEL HOUSE SITE

BY B. F. COOK, M.A., F.S.A.

Seven classical marbles were found during the excavations, but two of them, a rather battered altar and a fragment of sculpture, were subsequently lost. The five that were rescued are described below. All seven doubtless belonged to Thomas Howard (1585–1646), Earl of Arundel and Surrey, who assembled the first substantial collection of classical sculpture and inscriptions in England, the so-called Arundel Marbles. His passion for collecting ancient marbles was not shared by his heirs. During the second half of the seventeenth century some of the Arundel Marbles were damaged or destroyed, while others were dispersed. The most important surviving group of sculptures and inscriptions is now in the Ashmolean Museum, Oxford. Only the rump of the collection remained on the site of Arundel House, where individual pieces have come to light from time to time during building operations. Detailed accounts of the formation and dispersal of the collection have been published by A. Michaelis and D. E. L. Haynes.³⁸

1. A block of bluish grey coarse-grained marble from a frieze of alternating Medusa heads and consoles. Length, as preserved, 1.46 m; height, as preserved, 650 mm; thickness 600 mm.

The left side (with *anathyrosis*)³⁹ and the upper bed are preserved, at least in part, but the block is broken on the right and the lower bed has been extensively damaged (Plate 7).

Two Medusa heads survive, together with two consoles and traces of a third. The Medusas have snakes both in the hair and knotted below the chin, and the head on the left retains parts of the wings that crowned the coiffure. The consoles, which spring from acanthus leaves, have a volute at the top and in front are divided in three rather like triglyphs. A horizontal projection below them has a triple moulding on its lower surface. The carved ornament on the top row is damaged but was probably a kind of debased palmette frieze; the lower mouldings are an ovolo carved with egg-and-tongue and a half-round with bead-and-reel.

The block was originally part of a continuous frieze of a type found on second-century buildings in Asia Minor. The best known examples are those of the Trajaneum at Pergamum (c. A.D. 115–125) and the smaller temple at Side (c. A.D. 150),⁴⁰ but a similar frieze formed part of the entablature of the theatre at Side⁴¹ and another frieze is represented by heads in the British Museum and in Oslo.⁴² The latter is said to be from Smyrna.

As John Harris has recently discovered, the present block was also acquired at Smyrna, and in view of its size it may well have been found locally. Its source is known from a marginal note by Inigo Jones in his copy of Vitruvius, now at Chatsworth. The block was evidently well known in the seventeenth century: a drawing by John Webb, dated 1639, is in the Ashmolean Museum; Inigo Jones incorporated details from it in a design of about 1630; and it appears in *The Continenace of Scipio*, painted by Anthony van Dyck, probably late in 1620 or early in 1621. This painting, now in Christ Church, Oxford, once belonged to the Duke of Buckingham, Arundel's rival in collecting ancient marbles. The block must therefore have belonged at one time to Buckingham, and is unlikely to have come into Arundel's hands before Buckingham's death in 1628.⁴³

That such a celebrated piece was abandoned on the site of Arundel House is probably accounted for by its great weight. In the eighteenth century a "sarcophagus" was to be seen in the cellars of Mr. James Adamson in that area.⁴⁴ No sarcophagus has been found on the site, and it seems likely that the frieze block was simply mistaken for a Roman sarcophagus of a type contemporary with it, decorated with Medusa heads and floral festoons.⁴⁵ If the block were built into the walls of the cellar, it would not be evident that it was made of a solid piece of marble.

2. Cylindrical marble altar.

Height 660 mm. Surface abraded (Plate 8).

The altar was originally decorated in relief with four bulls' heads, of which one is now missing. Festoons of foliage and fruit are suspended between the bulls' heads and sacrificial fillets hang from them. Plain mouldings encircle the altar at the base and the top, the upper mouldings having in addition a row of dentils. Altars of this type were enumerated by C. G. Yavis,⁴⁶ but the development of the type has not been worked out in detail since external evidence for the chronology is lacking. Most of the known examples have been found on the Aegean islands, in particular Delos, Cos and Rhodes. Many have been found in controlled excavations, but not in closely stratified contexts. The series begins in the Hellenistic period and probably continues into Roman Imperial times.

The other altar from the Arundel House site, which was subsequently lost and which I know only from the photograph, was of the same basic type.

Five similar altars, three of them bearing short funerary inscriptions in Greek, are preserved at Arundel Park. Previously unknown to scholars, their existence was made known by the Duke of Norfolk when he saw the present example on the site. A separate publication by P. M. Fraser is in preparation.

3. A sandalled foot of fairly fine-grained white marble.
Length 565 mm (Plate 8).

The foot is broken at the ankle, and the ends of the first two toes are missing, together with a small part of the sole between them.

Sandals of this type might be better described as half-shoes, having sides made from a thin sheet of leather laid over the whole top surface of the sole and folded up to protect the heel and the sides of the foot. The division between the sole and the upper is clearly marked at the front of the sandal. Toes and instep are free, being covered only by the strapwork. The straps are threaded through holes near the edge of the upper and cross over a strip of leather, which runs up the instep and was folded down again to cover the straps. Below this tongue a thong runs between the first two toes to meet the sole. The tongue first appears in representations of Greek shoes of the third century B.C.,⁴⁷ and shoes of this type are shown throughout the Hellenistic period and into Roman times.

From heel to toe the underside of the sandal is slightly concave, and there is no trace of attachment to a plinth. The foot is therefore unlikely to have been broken from a statue and may have been dedicated as an offering in a sanctuary.⁴⁸

4. Greyish white coarse-grained marble fragment, probably of a table-support.
Height 760 mm; width, as preserved, 400 mm. Front section and upper rear corner missing (Plate 9).

On each face is a shallow rectangular recessed panel surmounted by a volute carved in low relief and having a stylised leaf in the axil. A small rectangular hole low down on one side was perhaps for an iron stretcher and presumably indicates the inner face. Below the recessed panel is a moulded base, preserved on the inner face only. The vertical end has been roughly finished with a claw chisel and lacks the base-moulding: it must therefore have been the back of the slab, set flush against another surface. The upper bed is similarly finished and must have been covered, probably by a table-top (supported at the other end by a matching support).

Table-supports of this type are known in Greece, especially on the island of Delos, from the fourth and third centuries B.C., but they became particularly frequent in Roman times. Decoration then tended to be more flamboyant, and this example should perhaps be dated in the Late Hellenistic period, second or first century B.C.⁴⁹

5. Block of coarse-grained white marble with part of a funerary inscription in Greek.
Length 1.03 m; height 225 mm; thickness 315 mm.

Upper left and lower right corners of the face damaged. Both ends have *anathyrosis*. The upper bed has clamp-holes at each end, and also a dowel-hole with a pouring channel for the lead ending 230 mm from the right edge (Plate 10).

The inscription is of a type that is quite common in the western coastal areas of Asia Minor during the Roman Empire. Local usage demanded that burials should take place in properly built tombs, and it was customary to make suitable provision during one's own lifetime. Inevitably there grew up an illicit practice of interring in other people's tombs those for whom such provision had not been made, and this in turn gave rise to a system of tomb-registry to protect the rights of owners. In addition to the entry in the register, a notice of registry was erected at the tomb itself. A considerable number of these notices, carved on stone, have survived. The exact wording of the inscriptions varies, but it usually includes the names of those entitled to be buried in the tomb, a prohibition of other burials, and a statement of the penalty to be paid by anyone who violated the owner's rights by introducing other bodies. These penalties sometimes include curses but more often simply specify a substantial fine to be paid either to the public treasury or to a local temple, where the tomb-register was presumably kept. A proportion of the fine may be allotted to the informer. The primary purpose is not protection from tomb robbers: the penalties are usually invoked only for unauthorized use of the tomb. The penalties are normally directed only against the living, provision being only rarely made for the removal of corpses illicitly interred.

The inscriptions vary in their wording, but certain standard formulae are found in various places. The formulae in this inscription seem to rule out several cities as possible sources. Among those that remain Smyrna is a likely candidate, but there can be no certainty failing the discovery of one of the missing parts of the inscription, which must originally have occupied at least one more block in the same course as well as other blocks above and below.

ΟΝ·ΨΕΙΛΟΝ·ΣΥΝΣΤΡΩΣΑΝΤΕΣ·ΑΥΤΟ·ΕΠΕ
ΟΙΣ·ΚΑΙ ΕΚΓΟΝΟΙΣ·ΜΗΔΕΝΟΣ·ΕΧΟΝΤ
ΜΗΟΝΤΑ·ΕΚ ΤΟΥ ΓΕΝΟΥΣ·ΕΙΣΟΙΣΕΙΝ

τὸν τόπ]ον ψειλὸν συνστρώσαντες αὐτοῖς(?) ἐπε[σκεύασαν?
καὶ τέκν]οις καὶ ἐγγόνοις μηδενὸς ἔχοντ[ος ἐξουσίαν πτώματα (vel sim.)
μὴ ὄντα ἐκ τοῦ γένους εἰσοίσειν

The beginning of the inscription (now missing) must have included the names of the owners. They had acquired it as a piece of "bare ground (*pseilon*: Ionic dialect form of *psilon*); having paved it [they prepared a tomb for themselves and their children] and their descendants; nobody having [a right other corpses] not of the family to introduce." The inscription presumably concluded with the usual penalties for violation of the tomb.

(I should like to thank His Grace The late Duke of Norfolk, E.M., K.G., for his kind permission to publish these items and the then London Museum for providing the photographs. I am indebted also to the following for help of various kinds: the late D. E. Strong, Mrs. P. Glanville and Miss Joyce Reynolds, and D. von Bothmer, J. Harris, D. E. L. Haynes, R. A. Higgins, R. Merrifield, G. Petzl, Francis Steer and V. M. Strocka.)

DISPOSITION OF THE FINDS FROM THE EXCAVATION:

The Medusa Frieze has kindly been placed on long term

loan by its owners to the Museum of London, where it will be displayed in the Stuart Gallery. The altar has gone to Arundel Castle, Sussex, and the remainder of the marbles will be displayed in the garden court of the Arundel Great Court Development. The animal and bird bones have been placed on permanent loan to the British Museum (Natural History). The best of the pottery specimens from the Tudor cesspit is intended to be placed on public view at Arundel Great Court. The remainder of the finds have been placed on long term loan with the Museum of London.

REFERENCES

- ¹ For full details of the history of Bath Inn and Arundel House, including the survey of 1589, see C. Lethbridge Kingsford, "Bath Inn or Arundel House", *Archaeologia* 72 (1921-22) 243-77.
- ² *Ibid.* 267-76.
- ³ R. Latham and W. Mathews ed. *The Diary of Samuel Pepys* 2 (London, 1970) 110 (30th May, 1661).
- ⁴ Kingsford, *op. cit.* Pl. L.
- ⁵ John Aubrey, *Natural History and Antiquities of the county of Surrey* (1718-19) Pl. 13a.
- ⁶ D. E. L. Haynes, *The Arundel Marbles* (Oxford, 1975) 16-18.
- ⁷ G. Home, *Roman London* (London, 1948) 253 and Frontispiece (top right).
- ⁸ J. M. C. Toynbee, *Art in Britain under the Romans* (Oxford, 1964) 209; also R. P. Wright, "A Greek inscription from the City of London" *Antiq. J.* 42 (1962) 247.
- ⁹ Kingsford, *op. cit.*
- ¹⁰ Kingsford, *op. cit.* Pl. LXVIII.
- ¹¹ Kindly provided by Francis Steer Esq., F.S.A., Archivist to His Grace the late Duke of Norfolk, K.G.
- ¹² J. Thane, *Views of Arundel House in the Strand* (1792).
- ¹³ Information from J. Cherry, Esq., who considered that the tiles could even be as early as fifteenth century. The British Museum specimens have no accession number.
- ¹⁴ For a discussion of Ipswich ware, see J. G. Hurst, "Saxo-Norman Pottery in East Anglia", *Proc. Cambridge Antiq. Soc.* 50 (1957) 29-60.
- ¹⁵ On the site of the Treasury, Whitehall, 1963, in an excavation by Michael Green (publication forth-
- coming). See the interim report in *The Illustrated London News* (June 29th, 1963), 1004-7. I am very grateful to Mr. Green for the opportunity to examine this material and to Mrs. Philippa Glanville for making this possible, as well as to John Hurst, Peter Addyman and Mrs. Rhona Huggins, who is working on the material, for helpful comments on the pottery.
- ¹⁶ Some of the Ipswich-type wares are tempered with fine rather than coarse sand.
- ¹⁷ I am grateful to Mrs. Rhona Huggins for this information.
- ¹⁸ See report in *London and the Saxons* (London Museum Cat. No. 6) (1935) 139-41.
- ¹⁹ See above note 15.
- ²⁰ Royal Commission on Historical Monuments (England). *An Inventory of the Historical Monuments in London, III, Roman London* (1928) 165 and plan, Pl. 55.
- ²¹ W. F. Grimes, *The Excavation of Roman and Medieval London* (London, 1968) 182-83.
- ²² M. Gelling, "The Boundaries of the Westminster Charters", *Trans. Middlesex Archaeol. Soc.* 2 (1953) 101-4. See also R. Merrifield, *Roman London* (London, 1969) 50-51 for a general discussion. I am grateful to Hugh Chapman and John Clark for help with these references.
- ²³ For Cistercian ware, see *Publications of the Thoresby Society* 49 (1962-64) No. 110, 116-19, and for a type series, P. Brears, *English Country Pottery* (Newton Abbot 1971), 18-23.
- ²⁴ For Cologne stoneware, see J. G. Hurst, "A Sixteenth Century Cologne Jug from Newcastle", *Archaeol.*

- Aeliana* 47 (1969), for a discussion of the type and a full bibliography.
- ²⁵ As illustrated in *Surrey Archaeol. Collect.* 68 (1971) 101, Fig. 3, No. 14.
- ²⁶ Especially from the two groups mentioned below in note 27.
- ²⁷ Large groups of pottery of slightly earlier date are currently being prepared for publication, namely that from Guy's Hospital, by Dr. G. Dawson, and those from the Treasury site by Mrs. Rhona Huggins. There are several parallels with finds from these groups, which are mentioned below. The only later sixteenth century group published from London is that from Lincoln's Inn, see J. Thorn, *London Archaeologist* 1, No. 6 (1970) 123-26. Another large group of the early sixteenth century from excavation at Baynard's Castle in 1972 is currently being analysed.
- ²⁸ Discussed and drawn in F. W. Holling, "A Preliminary note on the Pottery Industry of the Hampshire-Surrey Borders", *Surrey Archaeol. Collect.* 68 (1971) esp. 70 ff.
- ²⁹ Material being prepared for publication by Mrs. Rhona Huggins. I am grateful to the excavator, Mr. M. Green, for showing me the material from the site. See the interim report in *The Illustrated London News* (July 6th, 1963) 14-16. Similar vessels are also drawn in L. G. Matthews and H. M. Green, "Pottery from the Inns of Court", *Post-Medieval Archaeol.* 3 (1969) 1-17, esp. Fig. 1, No. 5.
- ³⁰ S. Moorhouse, "Two late and post-medieval pottery groups from Farnham Castle, Surrey", *Surrey Archaeol. Collect.* 68 (1971) 39-55.
- ³¹ Holling, *op. cit.*, 79, Fig. 4.
- ³² *Ibid.*
- ³³ See note 27 above.
- ³⁴ Information from Graham Dawson and Rhona Huggins.
- ³⁵ See note 24 above.
- ³⁶ Dating from J. G. Hurst, "The Kitchen Area of Northolt Manor, Middlesex", *Medie Archaeol.* 5 (1961 val) 259-63.
- ³⁷ R. Trow-Smith, *A History of British Livestock Husbandry to 1700* (London, 1957).
- ³⁸ A. Michaelis, *Ancient Marbles in Great Britain* (1882) 6 ff.; D. E. L. Haynes, "The Arundel Marbles", *Archaeology*, 21 (1968) 85 ff. and 206 ff., and *The Arundel Marbles* (Oxford, 1975).
- ³⁹ *Anathyrosis*: a structural technique employed in Greek and Roman buildings, whereby in the absence of mortar, adjacent blocks were held together by iron clamps and successive courses by iron dowels, held firmly in place by lead; in order to provide a tight joint between adjacent blocks, the greater part of the adjoining faces was recessed and roughly finished, while a narrow margin at the edges and across the top was carefully dressed. The term is derived from the resulting resemblance to a door (*thyra* in Greek).
- ⁴⁰ D. E. Strong, "Late Hadrianic Architectural Ornament in Rome", *Pap. Brit. School Rome* 21 (1953) 131 ff., and the references there cited, especially in notes 39 and 45. A. M. Mansel, *Die Ruinen von Side* (1963) 81, Fig. 61.
- ⁴¹ Mansel *op. cit.*, 135, Fig. 110; dramatic masks appropriately replace Medusa heads.
- ⁴² British Museum: A. H. Smith, *A Catalogue of Sculpture in the Department of Greek and Roman Antiquities* 3 (1904) 337, No. 2334, incorrectly catalogued as a fragment of a sarcophagus and said to be from Cydonia in Crete. Dr. R. A. Higgins has kindly pointed out to me that, being from the Strangford Collection, its reported provenance is likely to be incorrect. It must belong to the same frieze as the fragment in Oslo; S. Eitrem, *Griechische Reliefs und Inschriften im Kunstmuseum zu Kristiania* (1909) 14, No. 10, illustrated on p. 3.
- ⁴³ "The link between a Roman second-century sculptor, Van Dyck, Inigo Jones and Queen Henrietta Maria", *The Burlington Magazine* (August 1973) 527 ff. I should like to thank Mr. Harris for discussing his discoveries with me before the article was published.
- ⁴⁴ Haynes *op. cit.*, *Archaeology* 21 (1968) 208.
- ⁴⁵ The type is discussed by J. M. C. Toynbee, *The Hadrianic School* (1934) 202 ff., esp. Pl. XLIII, 1.
- ⁴⁶ *Greek Altars* (1949) 148 ff. (While this article was on the press, I was kindly allowed to see the manuscript of P. M. Fraser's forthcoming book on Rhodian Funerary Monuments, on which altars of this type are thoroughly discussed.)
- ⁴⁷ Mary Wallace, "Sutor supra crepidam", *Amer. J. Archaeol.* 44 (1940) 215.
- ⁴⁸ For other such feet in the British Museum, see Smith, *op. cit.*, 213 ff., esp. Nos. 2106 and 2107.
- ⁴⁹ For the type see W. Deonna, *Le mobilier délien (Exploration archéologique de Délos)* 18 (1938), 24 ff., and Pl. 12-15. See also G. Bakalakis, "Two More Trapezophora", *Essays in Memory of Karl Lehmann*, 27 ff.
- ⁵⁰ See note 39 above.
- ⁵¹ See also W. R. Paton and E. L. Hicks, *The Inscriptions of Cos* (1891), 337 ff.: Appendix D, "Sepulchral Inscriptions with Fines".
- ⁵² The word *pseilon* (*pseilon*) is attested only for the funerary inscriptions of Smyrna, J. Kubinska, *Les monuments funéraires dans les inscriptions grecques de l'Asie Mineure* (1968), 132.

ACKNOWLEDGEMENTS

The writer is indebted to many persons for help given during the excavation and for advice concerning, or contributions to, the final report. They are as follows:

The Schroder Executor and Trustee Company Ltd, the trustees of the 1958 settlement of the estate of His Grace the late Duke of Norfolk, K.G., the freeholder of the site, for their willing co-operation throughout the excavation, and for a generous grant towards the cost of publication of this report.

P. Fleig, F.R.I.B.A., of the architects, Sir Frederick Gibberd & Partners, for his help and for greatly facilitating liaison with all parties.

The contractors, Sir Robert McAlpine & Co., through their site agent A. White and their works manager Mr. Finn, for permitting unrestricted access to the site; for relocating their access ramp in order to allow excavations beneath their former one, which covered the vault; for the loan of a mechanical excavator and two workmen,

and for enabling excavations to continue until the last possible moment. It is also to the vigilance of the McAlpine employees that we owe the rediscovery of the seven Arundel Marbles.

Roy Canham, at that time of the London Museum; Miss Alison Laws of the Museum of London, and the West London Archaeological Field Group, for assuming full-time responsibility for the excavation work at very short notice, without whose help no excavation would have been possible, and for washing much of the excavated material.

Mrs. Philippa Glanville, of the Museum of London, for advice with the Italian glass and bronze small finds; for information and advice in connection with many aspects of Arundel House; and for reading the draft report.

Ralph Merrifield, of the Museum of London, for visiting the site to inspect the Medusa Frieze when first discovered.

S. E. Rigold, Ancient Monuments Inspectorate, for reporting on the Medieval coins; John Cherry, Department of Medieval and later Antiquities, British Museum, and Clive Orton, for identifying the medieval and later pottery.

M. Archer and R. Charleston (Ceramic Department, Victoria and Albert Museum), H. Morley-Fletcher of Messrs Christie's Ltd, and R. Keverne and P. Champkins of Messrs Spink & Son, for identification of the Chinese porcelain and the Delftware; R. Charleston also for identification of the glassware.

The Textile Department of the Victoria and Albert Museum for commenting on the leather shoe and the fabric remains.

Hugh Chapman, of the Museum of London, for much valuable advice with regard to the drafting of the final report.

For specialist reports, the following: Jeremy Haslam (Saxon and Tudor Pottery); Brian F. Cook, Department of Greek and Roman Antiquities, British Museum (the Arundel Marbles); Mrs. Juliet Clutton-Brock, British Museum (Natural History) (animal bones); Miss R. Powers, British Museum (Natural History) (human bones); Graham S. Cowles, British Museum (Natural History) (bird bones); Alwyne Wheeler, British Museum (Natural History) (fish bones).

The Society and the Editors are extremely grateful to Lord Perth and the Schroder Executor and Trustee Company Ltd. (as Trustees of the 1958 settlement of the estate of His Grace the late Duke of Norfolk, K.G.), Capital and Counties Property Company Ltd., the City of Westminster and the trustees of the former London Museum for generous financial assistance towards the cost of printing this report. Without this help this excavation would not have been published.

DEPARTMENT OF URBAN ARCHAEOLOGY, MUSEUM OF LONDON

CHIEF URBAN ARCHAEOLOGIST : BRIAN HOBLEY

AFRICA HOUSE SECTIONS, LONDON, 1973

BY DES WOODS, MICHAEL RHODES AND TONY DYSON

I. INTRODUCTION AND ACKNOWLEDGEMENTS

Africa House was situated on the site of nos. 42-49 Leadenhall Street. Excavations for construction in October 1973 revealed a chalk wall in section, which the contractors allowed to be drawn by a small team of volunteers. A second section was also recorded, and this consisted entirely of intercutting pits.

Acknowledgements are due to the architects, Messrs. Fitzroy Robinson & Partners, and the contractors, Trollope and Colls Ltd., for permission to work on the site. Special help and assistance on site was given by Mr. Barber.

Much praise must go to the City of London Archaeological Society, which provided the team of volunteers at extremely short notice.

Special mention should be made of Mrs. Geraldine Mico, who was responsible for watching the development of the site. Mention should also be made of the efforts of John Clark of the Museum of London, whose sketch section might so easily have been the only record of the site now available.

Finally, I would like to thank the staff of the Museum of London for all their help and contributions.

A detailed description of all the layers is now lodged with the Museum of London.

DOCUMENTARY SURVEY

BY TONY DYSON

The site of Africa House and its immediate surroundings was shared in the medieval period by two religious houses, Holy Trinity Aldgate and Evesham Abbey (Worcs.). At its foundation in 1108 Holy Trinity received from Queen Matilda the pre-Conquest soke of Aldgate which comprised the parishes of St. Katharine Cree, in which the site lies, St. Botolph without Aldgate, St. Mary Colechurch and St. Olave Hart Street, and which together provided half the priory's temporal revenues.¹ An indenture of sale of 1563 records Holy Trinity's former ownership of neighbouring cottages and tenements in Masons Alley² (also known as Sprinckle Alley or Sugar Loaf Alley) to the east of the site. But in spite of Holy Trinity's pre-eminence in the area the greater part of the present site belonged to Evesham Abbey which had held property in London as early as 1055,³ and which in 1536 was valued at £18 p.a.⁴ In 1540 the Crown granted to Edward and Alice Cornwallis a messuage called the Principall Place with a garden and with tenements and stables in Billiter Street, "Kelles" alley and on the High Street (Leadenhall), all formerly belonging to Evesham.⁵ In 1562 Thomas Cornwallis received a license to alienate the house "and a great garden adjoining thereto" to Sir Nicholas Throckmorton.⁶ Sir Nicholas died in 1571, and by 1582 the mansion, then known as Throckmorton House, was sold by George Bond of Ogbourne (Wilts) to two mercers, William Roberts and Robert Hudson.⁷ Stow described it in 1598 as a "fair house with diverse tenements adjoining,"⁸ but thereafter little is recorded until 1678 when

the Royal African Company, which had previously occupied premises in Throckmorton Street, moved in for the high rent of £230 p.a.⁹ Ogilby's map, published the previous year, shows only one substantial house in this angle of Leadenhall and Billiter Street. This was Whitchurch House which occupied an irregular site whose maximum dimensions were 175 ft north-south, and 125 ft east-west. At no point did the house front on to the street, and access to it was by a small alley some 50 ft west of Sugar Loaf Alley. The southern half of the total area was occupied by a large garden formally laid out to a geometric design. All the adjoining buildings at this date were small and insignificant, and there is no doubt that Whitchurch House was the building which changed its name to Africa House on the arrival of the African Company the following year. The house was pulled down towards the middle of the eighteenth century to make way for the enlarging of the East India Company's warehouse off Billiter Street, the African Company being found at a new address at Coopers Court, Cornhill, in 1766.¹⁰ The warehouses survived into the late nineteenth century, occupying much of the old Whitchurch, or Africa, House site.

¹ *The Cartulary of Holy Trinity Aldgate*, ed. G. A. J. Hodgett (London Record Society, 7) (London, 1971) xvi, 5-13; W. Page, *London. Its origin and early development* (London, 1923) 153-54.

² Corporation of London Record Office, *Hustings Roll 252* (70); *Victoria History of the Counties of England: London I* (London, 1909) 472.

³ *Chronicon abbatiae de Evesham*, ed. W. D. Macray (Rolls Series) (London, 1863) 75. A little earlier Abbot Ailward held the see of London in pluracy (*ibid.*, 36).

⁴ *Valor Ecclesiasticus*, iii (Record Commission xxxiv) (London, 1817) 251.

⁵ *Letters and papers of Henry VIII*, xvi (1540-41), No. 35.

⁶ *Cal. Patent Rolls 1560-63* 400.

⁷ C. L. R. O., *Hustings Roll 343* (20).

⁸ J. Stow, *Survey of London*, ed. C. L. Kingsford (Oxford (2nd ed.) 1971) i, 138.

⁹ K. G. Davics, *The Royal African Company* (London, 1957) 164.

¹⁰ H. A. Harben, *A dictionary of London* (London, 1918) 4.

3. INTERPRETATION

(a) Section I

Figs. 1 and 2.

This section can be divided into five periods.

Period I—the remains of a burnt Roman daub building (layer 7). This debris may also have been re-used as the floor of another building also incorporating the stake-hole in its plan. The burning is probably contemporary with layers 52 and 67, but the dating is uncertain: finds from layer 67 (Nos. 1 and 2, Fig. 3) suggest the Boudiccan fire of A.D. 60, though the one sherd from layer 7 (No. 4, Fig. 3) might indicate a later date in the second century, perhaps connected with the Hadrianic fire of c. A.D. 125-130.¹

Period II—another Roman building with a tessellated floor of plain red *tesserae* set in pink mortar (layers 2, 42, 61, Fig. 2) on a bedding of yellow mortar (layers 3, 43, 62, Fig. 2). John Clark's sketch of the original face showed another patch of this floor extending about 500 mm further north, giving a length of 9.3 m of flooring found. A close date cannot be given. Finds from below the floor were few in number (Nos. 1-4, Fig. 3), but gave an earliest possible date of mid-second century, while all the original occupation and post-occupation deposits above the floor were removed before the thirteenth century.

Period III—two medieval pits. Pit 1 dating from the second half of the eleventh century (Nos. 27-39) and Pit 6 dating from the early thirteenth century (Nos. 42-46).

Period IV—a chalk and gravel wall foundation (layers 25 and 26, Fig. 2). There were no traces of any facing blocks, nor of associated floor surfaces. Construction continued for about 600 m eastwards, with the tessellated floor continuing behind, and the wall probably dates from the late thirteenth century or early fourteenth century (No. 50).

Period V—two pits, dated to the first quarter of the seventeenth century (Pits 3 and 4, Fig. 2). Both were cut into the wall foundation of Period IV, Pit 4 to a much greater extent. This gives a useful terminal date for the use of the wall, and it seems unlikely that it is part of Whitchurch (later Africa) House as shown on Ogilby's map, but is more likely to be a part of one of the earlier mansions.

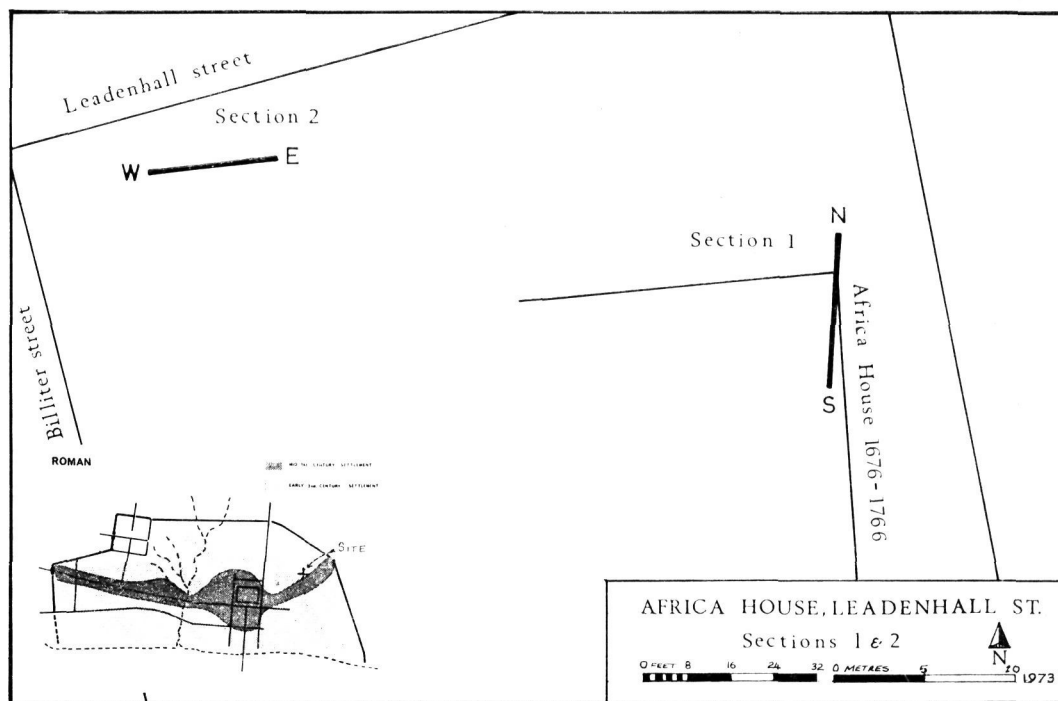


Fig. 1. Africa House, Leadenhall Street. Site location plan.

(b) Section 2

Although this section was just a series of intercutting pits, two important points emerged from analysis of the finds. Firstly, layer 116 yielded evidence of probable early Roman occupation. Secondly, finds from layer 114 seemed to indicate activity in the area during Saxon times (Nos. 51 and 52).

NOTES

¹ See G. C. Dunning, "Two Fires of Roman London", *Antiq. J.* 25 (1945) 48-52; R. Merrifield, *The Roman City of London* (London, 1965) 90; P. Marsden, "Two Pit

Groups in the City of London", *Trans. London Middlesex Archaeol. Soc.* 25 (1974) 282-84.

FINDS REPORT

BY MICHAEL RHODES

with contributions by Pamela Broady, David M. Browne, G. B. Dannell and Ralph Merrifield.

INTRODUCTION:

The finds from the Africa House excavations were recovered by trowelling into the sections to obtain material for use as dating evidence. The report is divided into three main sections dealing with the Roman, Saxon and medieval, and Post-medieval periods.

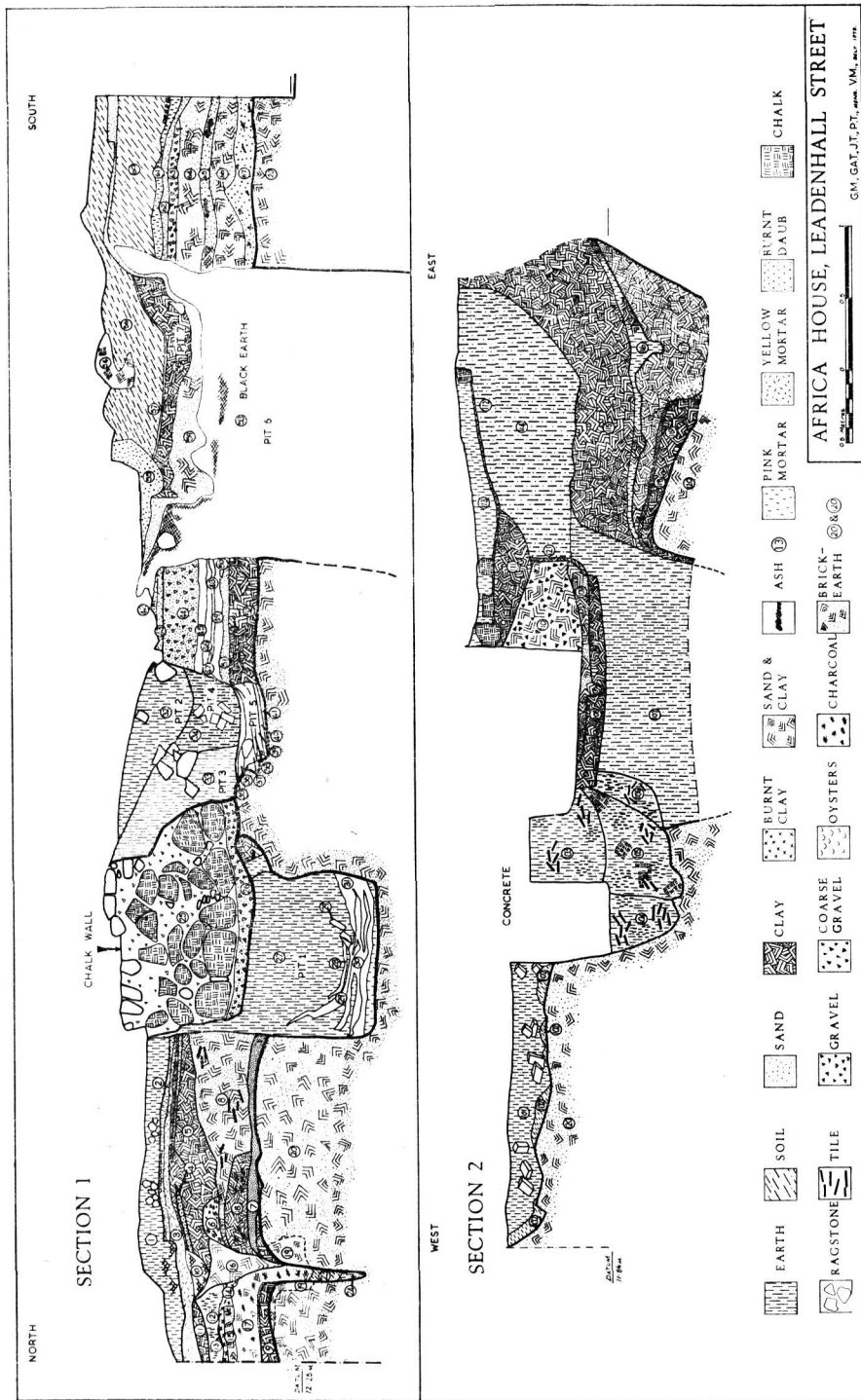


Fig. 2. Africa House, Leadenhall Street. Sections 1 and 2.

Every individually described object is given a Catalogue Number these also being used in the illustration, and a Museum of London group-accession number, prefixed by the letters E.R., is given with the Layer Number of each group of finds. Accession Numbers of individual finds are also given, these being in two parts, the first half being the E.R. number of the group to which each belongs.

The Roman and medieval pot-sherds are described in layer assemblages, these being arranged according to section and then in rough chronological sequence. A probable date is given in italics at the head of each group. Munsell colour names are used and fabrics are described as sandy where this is applicable to the texture, and as sand-tempered when individual particles of sand cannot be seen. The hardness conventions are those used by Pat Evans (Sheldon, 1974, 42).

All the finds are now in the possession of the Museum of London.

(A) ROMAN

POTTERY (EXCLUDING SAMIAN) (FIG. 3, 1-20):

Sixty-one stratified Roman sherds were recovered from Section One and one hundred and twenty-one from Section Two. Most of these were small, battered and looked as though they could be residual. Because of the way in which they were recovered, it was decided to describe only the fairly complete rim sherds with the purpose of providing dating evidence.

The writer would like to thank Harvey Sheldon and his team for their help during the preparation of this report.

SECTION 1:

Layer 67: E.R. 1420: Neronian or Flavian.

1. Jar. Hard, grey fabric, slightly micaceous, tempered with grog as indicated by black specks in the broken edges. Cordon at base of neck. Burnished towards top of rim on inside and on outside. Vessels of same general type found in deposits of Neronian to Hadrianic date at Verulamium, see Frere (1972, vessels 169, 285 and 441). Harvey Sheldon finds the fabric not dissimilar to that produced at Highgate and suggests a pre-Flavian date (Illustrated).
2. Jar. Hard, sandy, light grey fabric with light brown inner surface. Greyish brown, burnished, outer surface. Two cordons below rim. Vessels of same general type of Flavian date found at Verulamium; cf. Frere (1972, vessel 195) and Southwark; cf. Sheldon (1974, 46, No. 56) (Illustrated).

Layer 44: E.R. 1408:

3. Amphora. Hard, fairly sandy, pale yellow fabric with reddish yellow core, tempered with angular reddish brown and white grits. Similar rim forms found as early as the beginning of the second century at Verulamium; cf. Frere (1972, vessels 11 and 18) (Illustrated).

Layer 7: E.R. 1399:

4. Narrow-necked jar? Hard, sandy, grey fabric with some flecks of mica. Dark grey surfaces. Burnished on outside. Vessels of same general type of Hadrianic-Antonine date found at Verulamium; cf. Frere (1972, vessels 413 and 834) (Illustrated).

Layer 1: E.R. 1397: Fourth Century.

5. Jar or cooking pot. Hard, reddish brown fabric with brown core, tempered with coarse, rolled, white sand. Dark grey surfaces burnished on tip of rim and outside. Possibly equivalent of Gillam (1970 type 147). From mid-second century (Illustrated).
6. Bowl. Hard, sandy, yellowish red fabric, grey in parts with some flecks of mica (Illustrated).
7. Bowl. Hard, red fabric, tempered with fine, rolled, sand (Illustrated).
8. Bowl. Hard, sandy, micaceous, grey fabric with brown/grey surfaces. Same general type as Nos. 6 and 7. Possibly similar to late fourth or fifth century vessel from the Custom House site: Tatton-Brown (1974, Fig. 30, No. 243) (Illustrated).

9. Bowl. Fairly hard, sandy, brown fabric with black, burnished surfaces. Flanges of this sort do not appear at Verulamium before the early fourth century; cf. Frere (1972, 252-53 especially vessel 1169). A similar vessel, dated as fourth century, comes from East London: Sheldon (1972, Fig. 7, No. 12) (Illustrated).

10. Lid. Hard, sandy, dark brown to brown fabric with dark grey surfaces (Illustrated).

SECTION TWO:

Layer 107: E.R. 1424: Possibly first half of second century.

11. Narrow-necked jar. Hard, light grey to grey, sandy micaceous fabric with grey surfaces. Probably burnished (Illustrated).
12. Jar. Hard, sandy, micaceous, dark reddish grey fabric with grey core and grey surfaces. Burnished rim with burnished lattice on shoulder. Might be an early version of a cooking-pot of second century date (Illustrated).
13. Jar. Fairly hard, micaceous, reddish brown fabric with dark grey surfaces. Reddish brown inclusions could be grog. Raised shoulder with punctate decoration. Four sherds. Jars with cordons or raised shoulders, with widely out-curving rims are found mostly in deposits dated A.D. 49-150 at Verulamium (Illustrated).
14. Jar. Fairly hard, fairly sandy, micaceous, reddish brown fabric with grey core and dark grey surfaces unevenly burnished on the neck; cf. Frere (1972, vessel 118), Flavian, also Chapman (1973, vessel 215), Flavian (Illustrated).

Layer 102: E.R. 1421: Flavian.

15. Dish. Very hard, fine, white/pinkish white/pink fabric, surfaces slipped and polished to give gloss finish. Similar forms in Terra Nigra of Flavian date come from Toppings Wharf; cf. Sheldon (1974, vessels 130 and 140, also 131 which is not in Terra Nigra) (Illustrated).
16. Dish. Hard, grey fabric, lighter near surfaces with some mica flecks. Lightly tempered with fine, rolled, white and red sand. Burnished on inside. Possibly copy of Gallo-Belgic platter; cf. Chapman (1973, vessel 108), Neronian and Cunliffe (1971, Fig. 84, Forms 14.4-6). Probably Neronian or early Flavian (Illustrated).
17. Jar. Hard, dark, yellowish brown fabric tempered with crushed limestone and some red, flint grits. A larger vessel which also shows thickening inside the bead rim comes from Aldgate (Chapman, 1973, vessel 19), Flavian; cf. also a vessel from Kent, Philp (1973) and Frere (1972, vessel 302, also Flavian (Illustrated).

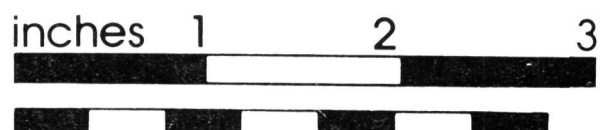
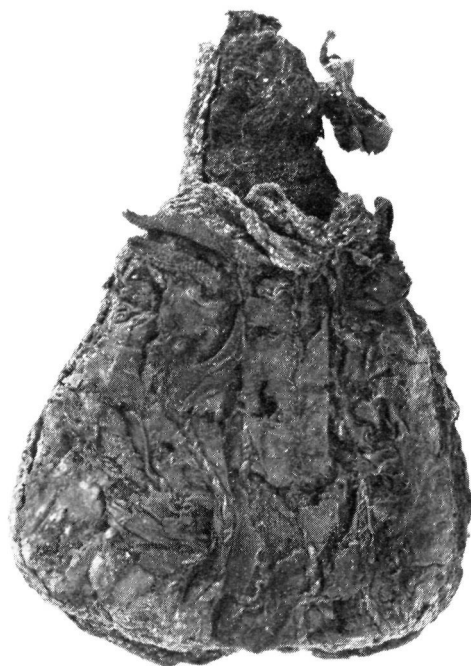


Plate 1. Africa House site: Sweet-bag 92 (1/1) (*Photograph:*
T. J. Hurst).

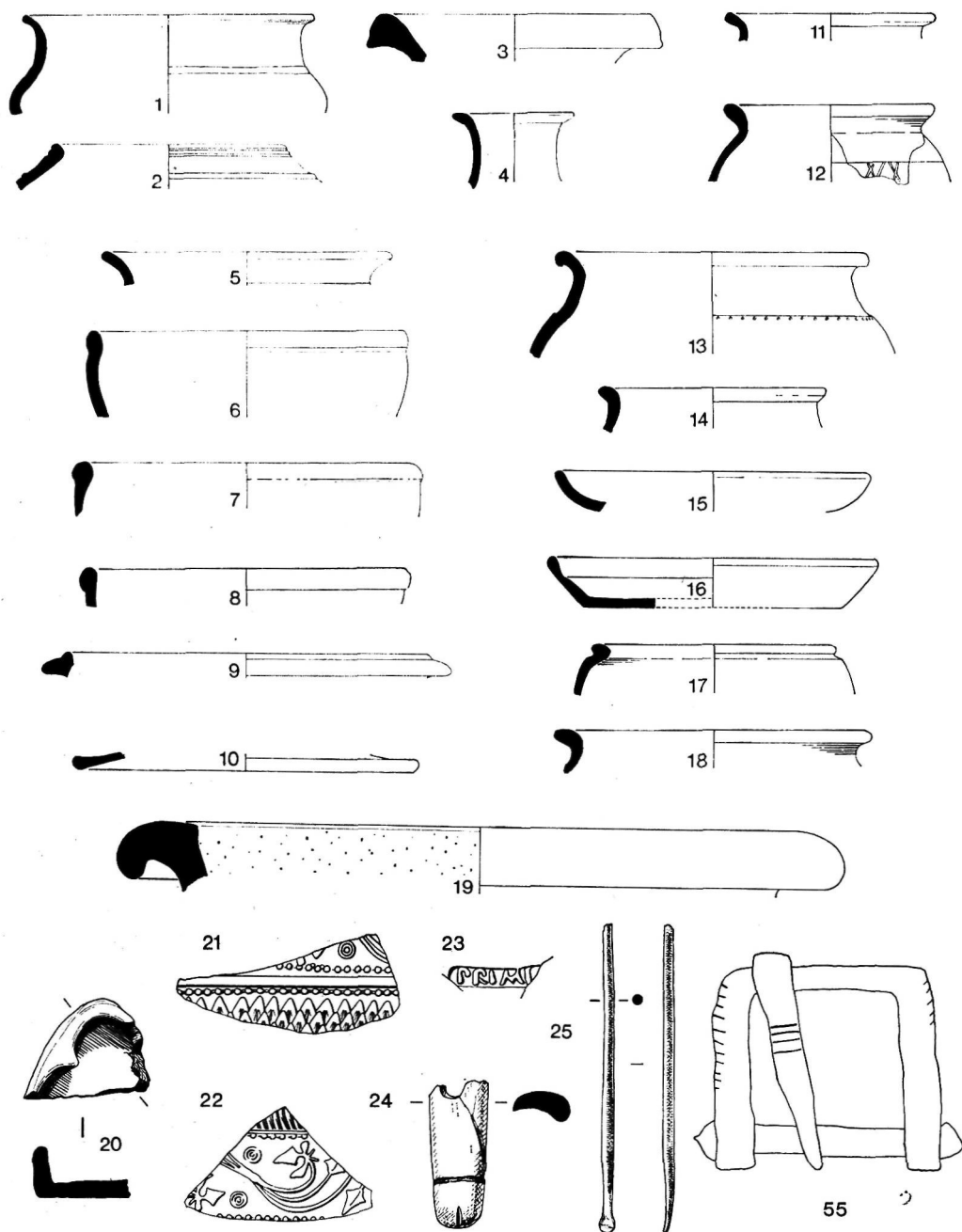


Fig. 3. Africa House, Leadenhall Street. Roman pottery 1-20 ($\frac{1}{4}$) 21-22 ($\frac{1}{2}$) samian stamp 23 ($\frac{1}{1}$) Other Roman finds 24-25 ($\frac{1}{2}$) medieval harness buckle 55 ($\frac{1}{2}$)

18. Jar. Fairly hard, dark brown fabric with black surfaces, tempered with rolled, gritty sand (Illustrated).
19. Mortarium. Hard, sandy, very pale brown fabric with sprinkle of mostly small, angular, grey quartz grits on top of rim and on inside. Not from Brockley Hill (Illustrated).

20. (1421/48). Lamp of open type. Pear-shaped outer wall with internal nozzle compartment formed by moulding inside of walls at pointed end. Hard, coarse, light grey/light brownish grey fabric, tempered with coarse sand. Smoke-blackened around nozzle; cf. similar, undated vessel in the Museum of London (Accession No. 3810) (Illustrated).

SAMIAN POTTERY

BY G. B. DANNELL

(FIG. 3, 21-23):

The abbreviations S.G. and M. de V. stand for Southern Gaulish and Les Martres-de-Veyre. The numbers given indicate the number of vessels represented.

SECTION 1:

Layer 67: E.R. 1420:

Cup, one, first century, S.G.

Layer 66: E.R. 1419:

Drag. 36, one, first century, S.G.

Layer 65: E.R. 1418:

Jar, one, first century, S.G.

Layer 5: E.R. 1398:

Drag. 35, one, Trajanic, M. de V.

Layer 57: E.R. 1413:

Ritt. 8, one, pre-Flavian, S.G. (Residual).

SECTION 2:

Layer 116: E.R. 1429:

Drag. 27, one, Claudius-Nero, S.G.

Layer 107: E.R. 1424:

Drag. 15/17, one, pre-Flavian, S.G.

Layer 102: E.R. 1421: Flavian.

Drag. 15/17, two, Neronian, (?) S.G.

18, two, Nero-Vespasian/Vespasian, S.G.

21. & 22. Drag. 29, Upper zone: winding scroll with stipulated leaves, ivy leaves and roundels.
Lower zone: barley-ears.

The scroll is discussed by Knorr (1919, Textbild 21), and the present example with narrow central moulding, small beads and well carinated shape is likely to belong to BASSVS and COELVS or a contemporary.

c. A.D. 55-70, S.G. (Illustrated).

23.

Plate, stamped PRIM[

Brian Harley writes: PRIM[ob (PRIMVS iii 27a) Only otherwise on 15/17 or 18 from Valkenburg (pale fabric) and Vechten, and 18 from Old Winteringham (noted as "tall triangular footing and matt glaze on pale fabric"). The present example, however, is on a fairly typical Neronian paste, with bright slip. c. A.D. 40-55, S.G. (Illustrated).

Layer 114: E.R. 1428:

Drag. 18, two, Flavian, S.G.

27, two, Flavian, S.G.

37, one, c. 80-95, S.G. (All Residual).

Unstratified: E.R. 1396:

Drag. 35, one, Flavian, S.G., graffito ^

BONE OBJECTS

BY D. M. BROWNE

(FIG. 3, 24-25):

24. (1399/36) Bone pendant: broken about halfway along its length. One end carved in the form of a phallus. Carved on a split long bone by detaching long thin facets. Finish by polishing to rounded surfaces. A very close parallel comes from 199 Borough High Street, Southwark, associated with mid first-century pottery. The present example probably had a similar clenched hand at the other end; see Kenyon (1959, Fig. 31, 6).

The associations of these objects are usually military; see Dunnitt (1971, Figs. 14, 33). From Layer 7 (Illustrated).

25.

(1426/37) Bone ligula: end broken. Hand carved with ovoid spatulate head. At least 90 mm long, maximum thickness 4 mm. For the type cf. London Museum (1930, pl. XXXVII, 7). From Layer 111. Residual (Illustrated).

COIN

26. (1410/20) Bronze coin identified by Ralph Merrifield as a Caravsius (287-93) Antoninianus of London mint. Not in R.I.C.
O [IM]r. CAR[AVSIUS] AVG. Radiate bust

r. cuirassed.
R. [F]EL [ICITAS AVG.] M[L] in exergue.
Galley r.
From Layer 53. Redeposited.

(B) SAXON AND MEDIEVAL

(B) SAXON AND MEDIEVAL

POTTERY:

Thirty-seven sherds of medieval pottery were recovered from seven separate layers in Section One along with sixty-eight sherds of residual Roman pottery. Only one medieval layer producing medieval pottery was found in Section Two but a Saxon, layer indicated by two sherds of this period accompanied by forty-three residual Roman sherds, was also discovered.

The sherds were examined primarily to produce dating evidence, although, because of the intention to produce a fabric type series, most of the sherds are fully described. Because most of the sherds are completely different, all descriptions are included in the catalogue of sherds.

The writer would like to thank John Cherry and Jurgens Verhaeghe for their help during the preparation of the report.

FIG. 4, 27-48:

SECTION 1:

Layer 28: E.R. 1403: Probably second half of eleventh century.

27. Cooking-pot. Everted rim with slight external beading at top. Hard, partially reduced fabric. Dark grey core, light brown outer surface and light grey/pinkish grey inner surface. Crushed shell tempering. A similar form but in a sandier, more reduced fabric, dated late eleventh to early twelfth century, comes from Aldgate: Chapman (1973, Fig. 19, No. 9) (Illustrated).
28. Sherd of cooking-pot (?) Partially reduced, hard, grey fabric with dark grey outside surface and light brownish grey inside surface. Tempered with sand, crushed flint and white inclusions. Heavily sooted on outside.
29. Sherd from hand-made cooking-pot (?) Hard, dense, reduced, grey/light brownish grey fabric with black inner surface. Crushed shell tempering. A similar but more reduced sherd of probable late-Saxon date comes from St. Mildred's Church (Rhodes, 1975, No. 110).

Three sherds of residual Roman pottery also from this layer.
Layer 27: E.R. 1402: Probably second half of eleventh century.

30. Rim sherd from cooking-pot (?) Reduced, sandy, black fabric, tempered with crushed shell (Illustrated).
31. Cooking-pot. Sherds from well defined basal angle of sagging based vessel. Fairly hard, grey fabric with rough light reddish brown internal surfaces and carbon deposits on the outside. Tempered with crushed shell and fairly fine, somewhat angular clear to white sand. Three sherds. Similar fabrics have been recovered from below the Church of St. Nicholas Acon (E.R. Nos. 879 and 887), which indicates a date prior to A.D. 1084.
32. Small sherd in similar fabric to No. 31, but with coarser sand and small angular grits.
33. Small sherd in hard, reduced, very dark reddish brown fabric, tempered with small angular red and white grits. Small white inclusions may be shell.
34. Small sherd in partially reduced grey to dark grey fabric with reddish brown, fairly smooth surfaces. Tempered with crushed shell.
35. Sherd in fairly hard, partially reduced fabric. Grey core with light brownish grey inner surface and pinkish grey outer surface. Tempered with crushed shell, pieces of chalk up to 7 mm across and one or two pieces of flint about 5 mm across. Wipe marks on surfaces. Tempering of this nature is usually found in late-Saxon rather than early medieval pottery. Possibly residual.
36. Small sherd from a wheel-turned vessel in hard, light grey fabric with reddish brown surfaces tempered with gritty sand. Decorated with narrow horizontal combed grooves and two diagonal lines of small squarish stab marks (Illustrated).
37. Small sherd in a hard, mostly oxidized light grey fabric with reddish brown surfaces. Tempered with smooth, reddish brown, dark reddish brown and yellow grits.
38. Small sherd from a wheel-turned vessel. Hard, grey fabric with rough, light red, oxidized surfaces. Tempered with fine angular sand.
39. Small sherd from a wheel-turned vessel on a hard white sandy fabric with a thin pale olive glaze with brownish

speckles. Fabric very similar indeed to a sherd of Winchester ware in the pottery type-series of the British Museum, Department of Medieval and Later Antiquities (sherd from CY68 context 44). The glazes are also similar except that the Winchester example is plain.

The parallels cited would suggest a late eleventh century date for this group. Seven sherds of Roman residual pottery accompany these sherds.

Layer 60: E.R. 1415: Probably first half of thirteenth century.

40. Small sherd in hard, reduced reddish brown fabric with grey surfaces tempered with coarse, rolled, white sand. Quite likely to be from Hertfordshire. Similar fabrics were recovered in 1974 from a twelfth century pit in Gentles Yard, St. Albans (Layer AJ 2). White sand often appears as a tempering material in Hertfordshire. Reduced wares particularly in fabrics from St. Albans and the Manor of the More.
41. Very small sherd from a wheel thrown jug (?) Hard, sandy, grey fabric with orange internal surface. Decorated with a narrow band of white trailed-on slip. Green-glazed over all giving the appearance of a yellow/green strip on a brown body. Decoration is akin to that of a "Mock-Rouen" jug in the Museum of London (Accession No. 18451), the fabric of which is, however, slightly different; cf. also Rackham (1927, 87), also in the Museum of London (Accession No. 14563). These jugs are common in the first half of the thirteenth century, which date is suggested for this sherd.

Two sherds of residual Roman pottery were found with these sherds.

Layer 53: E.R. 1410: Thirteenth century.

42. Cooking-pot. Fairly hard, mostly oxidized reddish brown fabric with dark grey core. Tempered with crushed shell. Three sherds. Sherds characterized by squarish rims in a variety of fabrics for which a thirteenth century date has been suggested have been recovered in Southwark: Sheldon (1974, 66-73), and very similar vessels have also recently been recovered by Miss K. Hardy from a ditch in the Tower of London, probably dating, on historical evidence, from before the year A.D. 1225 (Illustrated).
43. Rim of bowl or cooking pot. Grey, reduced ware, tempered with white sand. Probably from Hertfordshire. Very similar to some of the fabrics from the Manor of the More.
44. Sherd from jug (?) Hard, sandy, pink, oxidized fabric with small white inclusions. Decorated with wide, red, painted strip with applied pellets in the body clay. Overall yellow glaze. A French source seems most likely.
45. Sherd from jug? Very similar to above, but in pinkish grey fabric with a brown painted strip. Overall greenish yellow glaze.
46. Small glazed sherd from a wheel thrown vessel. Pinkish white body with yellow outer surface. Even, brownish yellow glaze.

Seven small medieval sherds, not described, and fifty-three residual Roman sherds were found with this group.

Layer 59: E.R. 1414: Thirteenth century.

47. Cooking-pot. Wheel-turned, with rim of expanded squarish type usually ascribed to the thirteenth century. Hard, reduced, brown fabric with dark brown core, tempered with coarse, rolled, white sand. Very similar to some of the sherds recently excavated from a twelfth century pit in St. Albans (see No. 40); cf. also the Museum of London Accession No. 2922 (Illustrated). Found in association with one sherd of residual Roman pottery.

Layer 56: E.R. 1462: Thirteenth century.

48. Jug. Rim and top junction of rod handle with applied ear-like lobes on either side. Partially reduced, grey, sandy fabric with reddish yellow surfaces, painted reddish brown. Strips of white slip have been trailed onto this painted surface, and white slip has also been painted on the top and inside of the rim. Glazed with a thick but patchy olive green/brown lead glaze which does not extend over the handle or the rim.

Whilst many points of French influence can be seen in this vessel, various combinations of its features can be found in several English (?) vessels belonging to the Museum of London in particular the so-called "Mock-Rouen" jugs. For example, a jug designated to the thirteenth century from the Mercers Hall (Mus. Accession No. 23577) also has an oxidized sandy fabric (not identical), a rod handle, a rim somewhat similar in shape and the distinctive white slipping on the top and inside of the rim; cf. also Museum Accession Nos. 14445, 14563, 15301 and in particular 18451, a "Mock-Rouen" jug with the distinctive French lobes.

John Cherry of the British Museum is of the opinion that the fabric of this vessel is definitely not French and that a source somewhere in the south-east of England should be sought (Illustrated).

49. Jug. Bottom junction of a strap handle with raised sides. Hard micaceous sandy fabric. Grey core with oxidized, light reddish brown surfaces having a patchy green glaze which appears dark grey to reddish yellow. Very similar indeed (apart from its rather less gritty fabric) to a series of jugs in the Museum of London found in the remains of a large wooden box during excavations in the Guildhall Car Park (E.R. 1076 C, see Marsden, 1968, 13). These jugs are all clearly of the same type, although they vary in height between 230 mm and 350 mm. Going on the width of the handle, this sherd should come from a jug towards the upper end of this range. A tentative date of 1200-50 has been given to these vessels.

Layer 25: E.R. 1400: Late thirteenth to early fourteenth century?

IRON (Fig. 3, 55):

55. (1410/7) Iron harness buckle: with decorative filed (?) notches on arms and pin; cf. example in London Museum (A 2664), London Museum (1940, Pl. LXXIX,

50. Two small sherds of a wheel-thrown jug (?) in a hard, sandy, red, oxidized fabric. Narrow vertical strips of white clay were applied to the outside surface and then rouletted with a square pattern, the whole surface then being slipped white and glazed to a fairly even dark green.

No direct parallels have been found for these sherds. Rouletting along parallel vertical strips with a pattern square to the line of the strip is said to have been a feature of thirteenth century Oxfordshire pottery, see Jope (1947). Green glazing on slipped red fabrics is a feature of Aardenberg Ware, and another ware supposed to come from Bergen op Zoom, both wares being dated early thirteenth century to late fourteenth by Gerald Dunning. See Dunning (1968, 13-15).

One sherd of residual Roman pottery was found with these sherds.

SECTION 2:

Layer 114: E.R. 1428: Saxon.

51. Body-sherd from a hand-made vessel of uneven thickness. Obviously from a crudely-fashioned vessel although the outer surface bears marks which indicate that it was probably wiped with a damp cloth before firing. A fairly hard fabric tempered with crushed shell and fired light red to grey. Flecks of mica can be seen on the surfaces. Holes in the edges of the sherd suggest that the clay contained organic inclusions.

52. Small sherd from a hand-made vessel in a hard dark-grey fabric with a reddish-brown inner surface. Tempered with crushed shell.

This group also contains forty-three sherds of residual Roman pottery, and a piece of modern glass which is almost certainly intrusive.

Several fragments of pottery bearing the general characteristics of the two sherds here described have been recovered from the St. Mildred's Church site for which a Saxon date has been suggested.

Layer 103: E.R. 1422: Possibly twelfth century.

53. Sherd from shoulder of large wheel-turned vessel. Hard, very rough, reduced, very dark reddish brown, micaceous fabric. Heavily sand tempered. This has been positively identified as Flemish by Jurgens Verhaeghe of Ghent University. Its possible date range is from the late eleventh to the fourteenth century, although it is most likely to date from the early end of this range.

54. Small sherd in fairly hard partially reduced fabric. Dark grey body with light red surfaces. Tempered with crushed shell. From tenth to twelfth centuries.

- 2). Early medieval. From Layer 53 (Illustrated from a radiograph).

(C) POST-MEDIEVAL

(C) POST-MEDIEVAL:

POTTERY

BY PAM BROADY

Post-medieval ceramic finds from the Africa House site were obtained from four separate layers. However, as sherds from the same vessel were found in three of these (Layers 33, 34 and 35), the remaining group (from Layer 113) containing only one partially reconstructible vessel and a featureless coarse sherd, it would seem both safe and logical to treat the ceramic finds as a simple group for the purposes of this report.

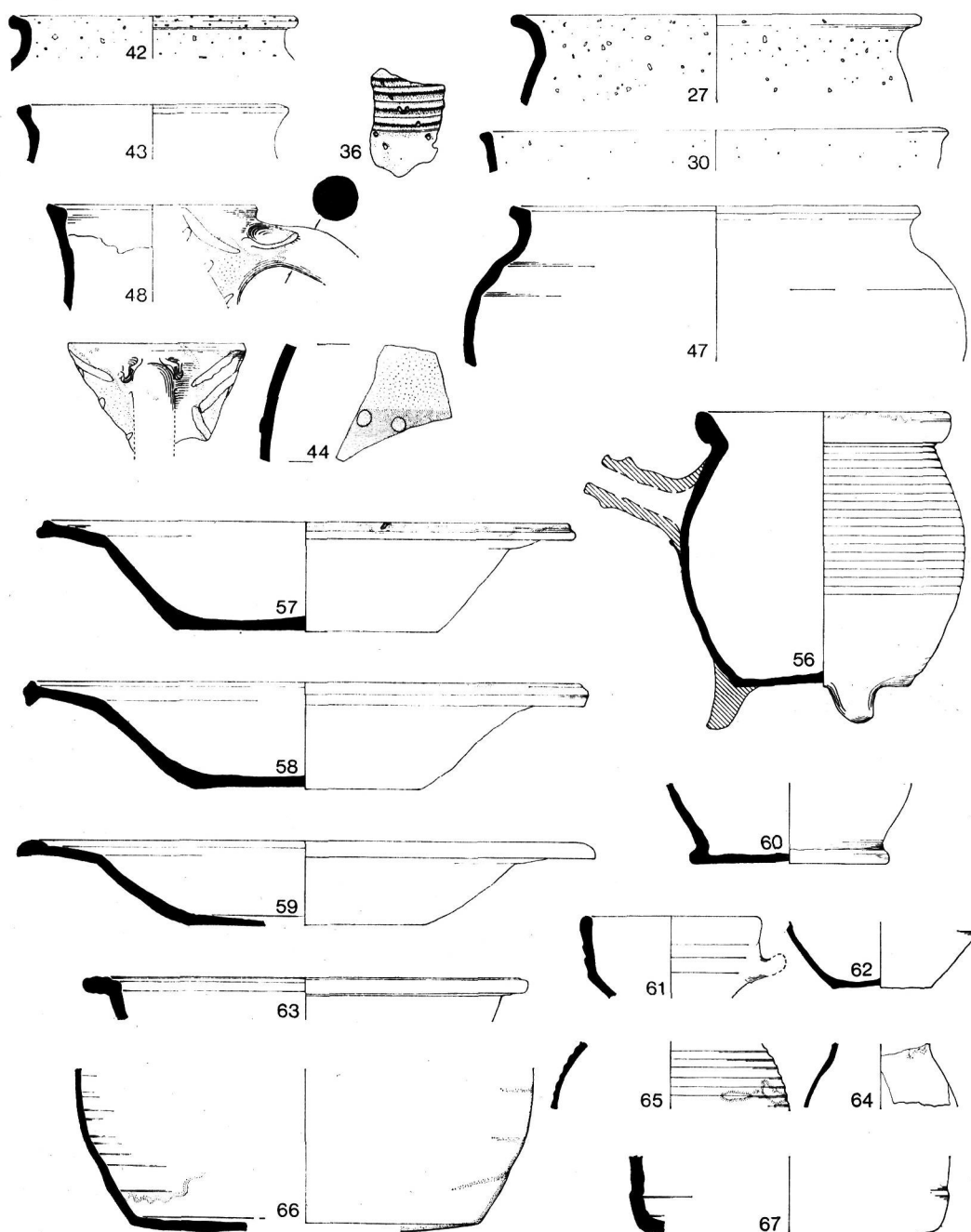


Fig. 4. Africa House, Leadenhall Street. Medieval pottery 27-48 ($\frac{1}{4}$). Post-medieval pottery 56-67 ($\frac{1}{4}$)

The wares represented fall into three basic categories as follows:

- (1) Fine white sandy wares.
- (2) Tin glazed earthenwares.
- (3) Sandy redwares.

Group 1 belongs to a class of wares generally attributed to the kilns operating in the Aldershot area during the sixteenth and seventeenth centuries, and often referred to as late "Surrey Wares". The fabric is in all cases hard-fired off-white to buff in colour (Munsell colour name: very pale brown) with fine sandy inclusions just visible to the naked eye, and would seem to correspond to the "White Ware" described from the seventeenth century kiln site at Ash in Surrey. Four basic forms are present—platter or dish, jug, tripod pipkin and side-handled cup. On the basis of the homogeneity of the group as regards fabric, glaze and individual features such as kiln prop scars, it is certainly possible, if not probable, that these were all the products of a single kiln site. However, no attempt has been made to isolate a particular site in view of the lack of a typological sequence for the known kiln sites, and a growing awareness that these sites may be part of a much larger industry in the West Surrey/Hampshire region, producing similar wares.

Where parallels have been observed from securely dated contexts, they are included under the individual vessel descriptions, and on the basis of these parallels, a date in the first half of the seventeenth century is suggested for Group 1. It should also be noted that a Nuremberg counter of c. 1618–60 was found in association with pottery from Layer 33. Nevertheless, some of the finds illustrated are known to have a wide date-range, e.g. the hollow-handled tripod and the loop-handled cup, both of which are known from late sixteenth century contexts.

The polychrome Delftware tiles of Dutch manufacture support a date in the first quarter of the seventeenth century, the bold quarter-medallions on each corner of tile No. 74 and the central motif of a vase of flowers being strongly characteristic of this period. The small drug-jars are also commonly attributed to the first half of the seventeenth century, while the charger fragments are probably of the late sixteenth century, having strong affinities with Dutch examples of this period (see No. 70).

Group 3 is distinguished mainly by the presence of an almost complete East Anglian jug (No. 76), of a type normally excavated from late fifteenth to early sixteenth century contexts in London, but as yet of uncertain dating. For the remainder of the group the term "Sandy Redwares" has been loosely used to cover all the vessels illustrated, but the group has no cohesion beyond this basic fabric description. For a detailed description of the wares see below.

A residual Roman sherd was found in Layer 34 (E.R. 1405). Layer 35 (E.R. 1406) produced four Roman sherds and one medieval shell-gritted sherd, and Layer 113 (E.R. 1427) produced seven residual Roman sherds.

(Fig. 4, 56–69):

FINE WHITE SANDY WARES:

56. Hollow-handled tripod pipkin: Three thumb impressions at junction of handle and vessel. Very fine close rilling externally. Light olive glaze internally with sparse brown splashes. Glaze evenly applied, extending over crest of rim. Splashes only of similar glaze externally with pool of brown glaze on base and approximately 2/3 of body; cf. Moorhouse (1970, Fig. 10, No. 3 and Fig. 13, No. 96). Similar vessels from Nonesuch (Biddle, 1961), dated 1650–65 and from Westminster Palace, with variations of rim, handle and girth, see Hurst (1960). Layer 34: E.R. 1405 (Illustrated).
57. Shallow dish. Knife-trimmed around base. Scar on rim from kiln-prop or adjacent vessel during firing. Evenly applied yellow glaze inside and over crest of rim, but not covering side of rim (a characteristic noted on bowls from Ash). Patch of leaf-green glaze on uppermost surface of rim, and around kiln scar. Unglazed externally with the exception of a few speckles of green. Both this and the following dishes are fairly closely paralleled by examples from Basinghouse, see Moorhouse (1970, Figs. 11, 13 and 14). For a direct parallel from Ash, Surrey, see Holling (1969, Fig. 5, 88). From Layer 34: E.R. 1405 (Illustrated).
58. Shallow dish. Yellow glazed as above, with specks of brown internally and on uppermost surface of rim. Small scar on lower edge of rim; the result of a kiln-prop/adjacent vessel of red-ware, being broken off

after firing. Knife trimmed around base. Unglazed externally with the exception of a thin patch of mottled leaf green. From Layer 34: E.R. 1405 (Illustrated).

59. Shallow dish. Knife-trimmed around base and sides. Outer rim scarred in two places (see No. 57). Kiln-prop scar on base. Inner base decorated with two concentric incised grooves, the outer being at the junction of base and side. Mid-green glaze evenly applied internally and covering rim, with overall streaks of rich brown and patch of similar over uppermost surface of rim. Glaze also tends to a patchy pale yellow appearance in places. Thin film of clear glaze externally, with apple green patches and trickle of brown over edge of rim. From Layer 34: E.R. 1404 (Illustrated).
60. Jug or jar. Base with clubbed foot, as characteristic of many seventeenth century domestic wares; see Moorhouse (1970) for comparisons. Evenly applied yellow glaze internally. Three scars of similar type around outer base indicating use of trivets to separate pots during firing. Body of pot unglazed externally, the base only having a film of clear glaze with pools of yellow/mottled green around conjectured trivet scars, the latter green extending to span base, in addition to which there is one rich brown streak running from nearedge of base to break in wall of vessel. The patch of yellow glaze surrounding one of the scars has also formed a dribble over the foot and onto the wall of the vessel, which may indicate that the vessels were staked for firing in an upside-down position. Layer 33: E.R. 1404.

61. Loop-handled cup: Handle broken off showing remains of luting used for its attachment to the vessel, and the continuation of the triple reeding below. Fine yellow glaze evenly applied internally, covering the rim in part. Splash only of a similar glaze externally; cf. example in Victoria and Albert Museum (Stuart G. Davis Bequest c. 71, 1951) described as Mooringer: English, sixteenth century or later. From Layer 33: E.R. 1404 (Illustrated).
62. Biconical cup. Base only. Pale olive glaze unevenly applied internally with body colour showing through in patches, to produce mottled orange-grey appearance, which is in evidence on outside also, as the latter is covered by only a thin film of glaze, and one small patch of apple green. Wide streak of rich brown glaze across base and lower wall of vessel; cf. Moorhouse (1970, Fig. 12, No. 62). From Layer 34: E.R. 1405 (Illustrated).
63. Bowl. Rim sherd with triple reeding on upper rim surface. Film of pale yellow glaze over uppermost rim and internally. Light yellowish-brown external surface with some green glaze speckles under rim. From Layer 35: E.R. 1406 (Illustrated).
64. Shoulder of very fine "Tudor-green" glazed jug? From Layer 35: E.R. 1406 (Illustrated).
65. Burnt sherd from a fine rilled vessel. Fabric burnt very dark grey/light grey. Internal glaze appearing cracked and olive green in colour. Splash only of similar glaze externally. Otherwise featureless. From Layer 33: E.R. 1404 (Illustrated).
66. Base/body sherd of cooking vessel. "Porridgy", light yellowish brown fabric with heavy mica gritting. Possible traces of thumb slip at junction of base and wall, remaining evidence of a tripod foot? Thick, apple-green glaze covering inside of base and extending some way up inner wall, appearing in patches further up also. No trace of glaze externally, but evidence of burning on underside of vessel and around basal angle. From Layer 113: E.R. 1427 (Illustrated).
67. Base/body sherd of a crudely finished vessel. Fabric very pale brown-pink with thick olive-green glaze unevenly applied internally. The same glaze appears on underside of vessel, which also shows traces of heavy burning. All outside wall surfaces are sooted. Marked grooving near the internal basal angle appears also on two similarly puzzling vessels from Basing House; see Moorhouse (1970, Fig. 11, Nos. 45 and 50). From Layer 33: E.R. 1404 (Illustrated).
68. Body sherd from "Surrey" lobed cup, mottled green glaze internally only. From Layer 34: E.R. 1405.
69. Three sherds (from Layers 33, 34 and 35) being part of a dish similar to Nos. 57, 58 and 59, but with bright leaf-green glaze internally.

(Fig. 4, 56-69):

TIN-GLAZED EARTHENWARES:

70. Charger: Rim sherd with blue-dash edge motif. Buff-pink fabric with some sandy inclusions. Similar in character and pigmentation to a British Museum example (Franks Collection, 85 5/8, 40), dated c. 1580, made in Haarlem. From Layer 34: E.R. 1405 (Illustrated).
71. Small drug jar. Buff-pink fabric with sand and red-fired clay inclusions. "White" glaze with greenish-pink tinge overall internally. External background glaze tinged similarly blue-pink. Small scar on carination; the result of another vessel placed too close during firing. No trivet scars on base, reinforcing a Dutch origin for this vessel; see Moorhouse (1970). From Layer 34: E.R. 1405 (Illustrated).
72. Body-herd from decorated charger featuring large leaf design. Buff fabric. Glaze on base is thick, milky green with blue flecks. The latter and combination of pigments used in the decoration indicate a late sixteenth century date for this vessel; see British Museum example cited above. From Layer 34: E.R. 1405 (Illustrated).
73. Ointment pot. Sherd in light yellowish brown fabric with fine sandy inclusions. Very roughly finished inside with overall pinkish-white glaze. Background glaze on exterior has similar blue-pink tinge. English? From Layer 34: E.R. 1405 (Illustrated).

DELFTWARE TILES:

74. (1406/7). Polychrome tile with quarter medallion motif on corner. Very pale brown fabric with sandy inclusions. One side has pinkish surface. Comparable example in the Victoria and Albert Museum (14, c. 492-1923). From Layer 35: E.R. 1406 (Illustrated).
75. (1406/46). Polychrome tile with geometric motif. Fabric light red to pale brown with sand and sparse grogging. Sides have fine coating of off-white slip. Formed part of composite tile pattern. A common type from the end of the sixteenth to the mid-seventeenth century. For probable reconstruction of the overall geometric pattern see Moorhouse (1970, Fig. 25, No. 1). From Layer 35: E.R. 1406 (Illustrated).

SANDY REDWARES:

76. Jug: East-Anglian (?) type. Hard red sandy fabric. Bib of white slip covers front of jug and extends to rim edge, being over-glazed by a mottled green-yellow galena with random splashes on body of vessel and over the handle at its junction with the neck. Jugs of this type have been recovered from widely varying contexts both in and outside London, rendering dating rather arbitrary. However, it would seem fairly clear from an example excavated from a context of the second quarter of seventeenth century at Dover Castle (Mynard, 1969, Fig. 14, 43) that this type of vessel possibly represents the continuation of a tradition which has medieval roots; see Hurst (1960, Fig. 2, No. 12). However, bearing in mind evidence from London alone, the example in question may perhaps be dated to the earlier period (two similar examples exist in the Museum of London collections, MIX.220 dated fifteenth to sixteenth century and MIX.172 dated fifteenth century). See also Rackham (1972, Pl. 4). From Layer 34: E.R. 1405 (Illustrated).
77. Rim handle sherd of jug (?) Hard red fabric with sand. Deep brown surfaces with applied thick white slip decoration over handle, inner and outer rim and on body. Random speckles of clear glaze overall. From Layer 35: E.R. 1406 (Illustrated).
78. Rim/shoulder sherd with raised bands. Hard red fabric with uneven grey core. Small patch of white slip over internal lid (?) seating. Mottled green/yellow glaze internally and over crest of rim, with pink surfaces showing through in places. Dark yellow glaze evenly applied externally over body and neck, but not extending to cover rim. From Layer 35: E.R. 1406 (Illustrated).
79. Rim neck sherd with raised bands. Hard red fabric with some sandy inclusions. Evenly applied orange glaze internally and externally. From Layer 34: E.R. 1405 (Illustrated).
80. Rim sherd in fine sandy orange-red fabric. Orange-brown glaze evenly applied externally covering crest of rim and forming rough border on inner rim. Remainder of surface similarly glazed yellow, over a white slip. From Layer 35 (Illustrated).

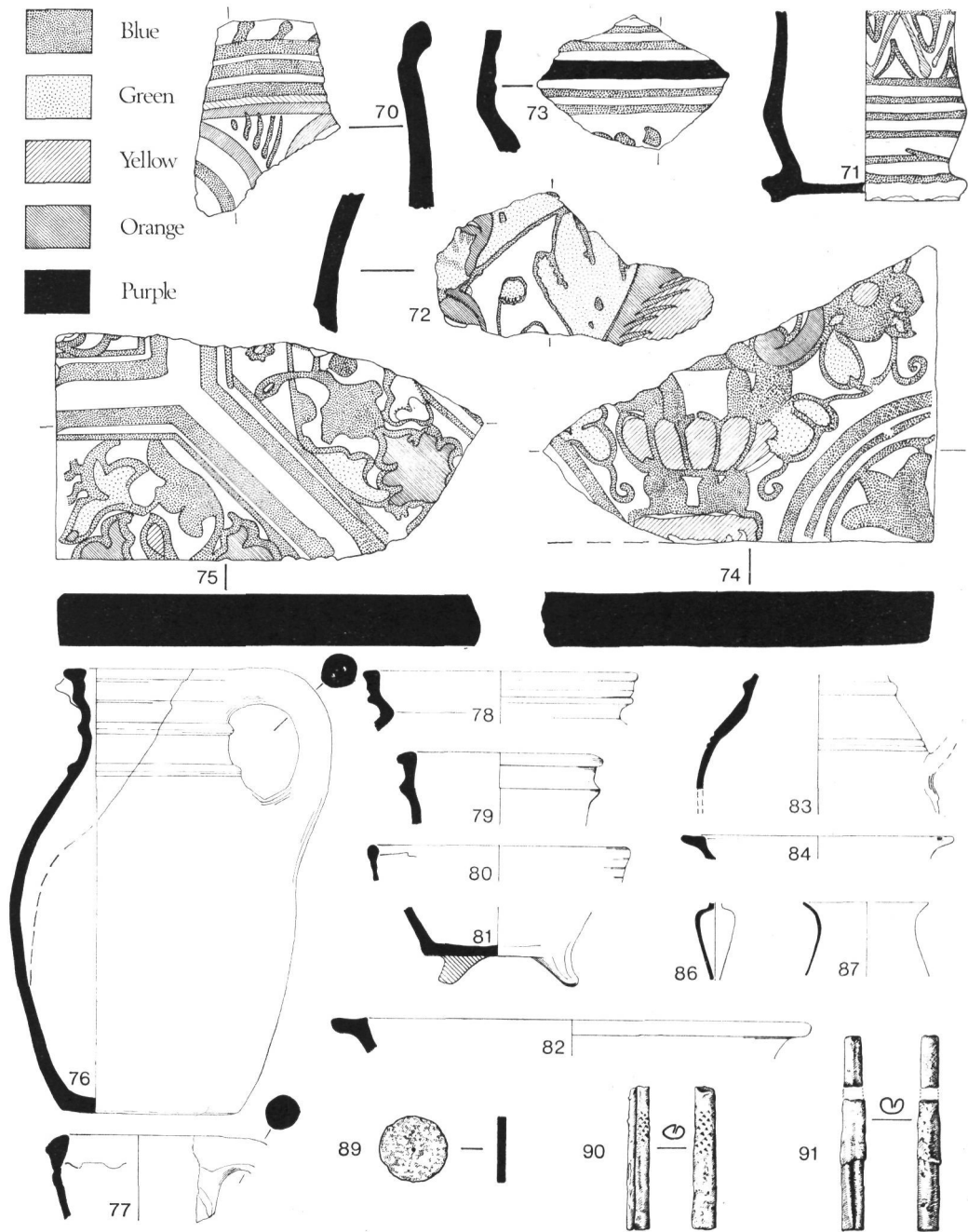


Fig. 5. Africa House, Leadenhall Street. Post-medieval finds tinglazed ceramics 70-75 ($\frac{1}{2}$) red wares 76-84 ($\frac{1}{4}$) glass 86-87 ($\frac{1}{4}$) bronze objects 89 ($\frac{1}{2}$) 90-91 (1/1)

81. Base sherd of small tripod vessel with entirely flat underside. Fabric red, sandy. Brown-yellow glaze evenly applied overall internally, with some dark brown specks. Coarse externally except for one small patch of similar glaze under foot and a speck at junction of base and well. Unglazed surfaces are purple, sooty and burnt; cf. Moorhouse (1970, Fig. 18, No. 149). From Layer 35: E.R. 1406 (Illustrated).
82. Bowl: Everted rimsherd in red, sandy fabric with grey-red core. Mottled green/yellow glaze internally and covering upper surface of rim. Unglazed externally. From Layer 35: E.R. 1406 (Illustrated).
83. Neck/body sherd of posset (?) Red, sandy fabric with some reduced grey areas. Applied handle in the manner of "Cistercian Ware" handles with single finger impression where the handle springs from an applied pad of clay. Brown glaze with darker flecks, evenly

tentatively between 1650 and 1750 at Nether Stowey; see Coleman-Smith (1970, Fig. 6, No. 3). From Layer 33: E.R. 1404 (Illustrated).

84. Everted rim sherd. Red-pink, sandy fabric. Brown-green glaze internally and over uppermost surface of rim. Coarse externally except for a small patch of gritty glaze near rim. From Layer 34: E.R. 1405 (Illustrated).
85. Rim sherd with pinched "split rim". Very hard, red fabric with smooth surfaces. Evenly applied brown glaze with small dark brown specks, internally over crest of rim and lower outer rim but not within "split" area. Unglazed externally exhibiting purplish brown surfaces. From Layer 33: E.R. 1404. applied overall externally. Small patches of glaze only on upper part of vessel internally, extending to just below raised band, otherwise unglazed. Similar vessels are known, e.g. from a post-medieval kiln dated

GLASS (Fig. 5, 86-87):

86. (1405/9). Hollow inverted-baluster stem or wine-glass. Clear soda glass, broken off at knop of foot and junction with bowl; cf. Hume (1969, Fig. 64, type II) dated 1590-1630, and Haynes (1970, Pl. 27, B). Possibly of

local manufacture. From Layer 34 (Illustrated).

87. (1404/9). Rim of flask (?) in pale green metal with some internal bubbles. Rim edge appears slightly abraded. From Layer 33 (Illustrated).

OTHER FINDS (Fig. 5, 89-91 and Plate 1):

88. (1404/6). Bronze token identified by Ralph Merrifield as a Nuremberg casting counter of Wolf Laufer (c. 1618-60).

O. WOVL-FÄVFER-IN-NVRNBER. Three crowns alternating with three fleurs-de-lys within circle.

R. DES. [HERN.?] SEGEN-MACT-REI Reichapfel in trilobe. From Layer 33.

89. (1425/27). A small bronze disc with a centre mark on both sides which may indicate that the object was turned on a lathe. Its function is unknown. Possibly late medieval or Tudor. From Layer 110 (Illustrated).
90. (1404/16). Bronze lace-chape: Decorated with a diamond pattern which may either have been impressed into the metal by the tool used to form the lace-chape from a thin strip of bronze, or have been punched onto the metal strip before it was bent into shape. The sides of the strip are bent inwards so that they would have gripped the lace firmly. From Layer 33 and therefore probably from the first quarter of the seventeenth century (Illustrated).
91. (1405/21). Bronze lace-chape: Similar to No. 90 but plain. From Layer 34. Date as above (Illustrated).
92. (1404/8). Sweet-bag: Flattened pear-shaped body of compressed hair covered with tafetta. Two widths of silver-gilt (?) braid around the edge allow a narrow strip of the tafetta to show between. Traces of six vertical, couched (?) silk threads can be seen on the back. On the front a pocket of rough tafetta with vertical,

silver-gilt (?) couched threads is gathered by a tape draw-string. The top part of the object is missing. The round heads of four pins protrude from one side indicating its suitability for use as a pin-cushion.

Sweet-bags, used to hold sweet-smelling herbs, may also have been scented, as an alternative, by dabbing with perfume. The use of compressed hair, being a highly absorbent material, as the basis for this article underlines this possibility. In portraits of the late sixteenth century they are shown as feminine accessories worn attached to the belt, a clear example to be seen in the portrait of Mary Fenton, 1573, in the City of York Art Gallery and published by Roy Strong (1969). A present-day equivalent is found in the Swiss plaque sachets which contain medicinal herbs and printed plaque charms.

Although the only portraits which show sweet-bags in use date from the second half of the sixteenth century, their inclusion in later inventories indicates they were also common in the early seventeenth century. This later date is more likely for this example which comes from Layer 33 (Pl. 1).

(I am most grateful to Miss S. M. Levey of the Victoria and Albert Museum and Kay Staniland of the London Museum for the information they have given about this item.)

93. (1404/18). Short length of woven silk braid with silver-gilt threads in the centre of the warp. From Layer 33.

BIBLIOGRAPHY

- BIDDLE (1961), M. Biddle, "Nonesuch Palace", *Surrey Archaeol. Collect.* 58 (1961) 1-20.
- CHAPMAN (1973), H. Chapman and T. Johnson, "Excavations at Aldgate and Bush Lane House, 1972", *Trans. London Middlesex Archaeol. Soc.* 24 (1973) 1-73.
- COLEMAN-SMITH (1970), R. Coleman-Smith, D. Ceram and T. Pearson, *Donyatt Research Group Interim Report* (1970).
- CUNLIFFE (1971), B. Cunliffe, *Excavations at Fishbourne, 1961-69*, 2 (Leeds, 1971).
- DUNNETT (1971), B. R. K. Dunnett, "Excavations in Colchester, 1964-68", *Trans. Essex Archaeol. Soc.* 3, pt 1 (1971).

DUNNING (1968), G. C. Dunning, "The Trade in Medieval Pottery around the North Sea", *A Contribution to Medieval Archaeology* (Rotterdam, 1968).

FRERE (1972), S. S. Frere, *Verulamium Excavations I* (Oxford, 1972).

GILLAM (1970), J. P. Gillam, *Types of Roman Coarse Pottery Vessels in Northern Britain*, 3rd ed. (Newcastle upon Tyne, 1970).

HAYNES (1970), E. Barrington Haynes, *Glass through the ages* (London, 1970).

HOLLING (1969), F. W. Holling, "Seventeenth Century Pottery from Ash, Surrey", *Post Medieval Archaeol.* 3 (1969) 18-30.

- HUME (1969), Ivor Noel Hume, *A Guide to Artifacts of Colonial America* (New York, 1969).
- HURST (1960), J. G. Hurst, "A Late-Medieval Pit at Westminster Abbey", *Antiq. J.* 40 (1960) 188-94.
- JOPE (1947), E. M. Jope, "Medieval Pottery in Berkshire", *Berkshire Archaeol. J.* 1 (1947) 49-76.
- KENYON (1959), K. M. Kenyon, "Excavations in Southwark", *Research Papers of the Surrey Archaeol. Soc.* 5 (1959).
- KNORR (1919), R. Knorr, *Topfer und Fabriken verzierter Terrasigillata des ersten Jahrhunderts* (Stuttgart, 1919).
- LANE (1960), A. Lane, *A Guide to the Collection of Tiles in Victoria and Albert Museum* (HMSO, 1960).
- LONDON MUSEUM (1930), *London in Roman Times*, London Museum Catalogue, 3 (London Museum, 1930).
- LONDON MUSEUM (1949), *Medieval Catalogue* (London Museum, 1949).
- MARSDEN (1968), P. V. Marsden, "Archaeological Finds in the City of London, 1965-66", *Trans. London Middlesex Archaeol. Soc.* 22, pt 1 (1968) 1-17.
- MOORHOUSE (1970), S. Moorhouse, "Finds from Basing House, Hampshire (c. 1540-1645), pt 1", *Post-Medieval Archaeol.* 4 (1970) 31-91.
- MYNARD (1969), D. C. Mynard, "A Group of Post-Medieval Pottery from Dover Castle", *Post-Medieval Archaeol.* 3 (1969) 31-46.
- PHILP (1973), B. Philp, *Excavations in West Kent, 1960-70* (Kent Archaeological Rescue Unit, 1973).
- RACKHAM (1972), B. Rackham, *Medieval English Pottery*, 2nd ed. (London, 1972).
- RHODES (1975), M. Rhodes in P. Marsden, "Excavations on the site of St. Mildred's Church, Bread Street, London", *Trans. London Middlesex Archaeol. Soc.* 26 (1975).
- SHELDON (1972), H. Sheldon, "Excavations at Parnell Road and Appiom Road, Old Ford, E3, February-April 1971", *Trans. London Middlesex Archaeol. Soc.* 23, pt 2 (1972) 101-47.
- SHELDON (1974), H. Sheldon, "Excavations at Toppings and Sun Wharves, Southwark, 1970-72", *Trans. London Middlesex Archaeol. Soc.* 25 (1974) 1-116.
- STRONG (1969), R. Strong, *The Elizabethan Image* (The Tate Gallery, 1969).
- TATTON-BROWN (1974), T. Tatton-Brown, "Excavation at the Custom House Site, City of London, 1973", *Trans. London Middlesex Archaeol. Soc.* 25 (1974) 117-219.

ACKNOWLEDGMENTS

Thanks are due to the many people who helped in work on the finds. Ann Clark prepared the catalogues, Alan Barnett, Pam Broady, Antony Dufort, Sue Heaser and Howard Pell made the illustrations and the finds were conserved by Joyce Andrews, Anne Edmundson and Bill Rector. Linda Hall and Mimi Leveque helped in the preparations for publication and Pam Broady, D. M. Browne, G. B. Dannell, B. Hartley and Ralph Merrifield provided specialist reports without which this publication would not have been possible.

The Society and the Editors are grateful to the Museum of London for a grant towards the cost of printing this report.

EXCAVATIONS IN PEAR WOOD, BROCKLEY HILL, MIDDLESEX, 1948-1973

STEPHEN A. CASTLE

The purpose of this report is to summarize the results of excavations conducted in Pear Wood, in 1948-49, 1954-59 and 1973. These excavations were mainly concerned with the sectioning of the large east-west aligned earthwork which runs through the centre of the wood. It has been suggested that it represents an easterly continuation of the linear earthwork Grim's Ditch, which runs from Cuckoo Hill (N.G.R. c. TQ: 112895) to Harrow Weald Common (c. TQ: 143929), where it disappears (Fig. 1).¹ A valuation of the Manor of Canons of 1535 suggests the existence of an earthwork called 'Grymesdich', in close proximity to Cloister and Pear Woods.² Excavations in 1948-49, 1954-59 and 1973 were conducted in the hope of determining the nature, purpose and date of the Pear Wood earthwork.³ In addition it was thought that they might provide some evidence of Belgic occupation.

Appreciation is expressed to the late Mr. P. G. Suggett for generously permitting the writer to include his findings in this report. Regrettably, however, its scope is limited by certain factors. Firstly, records of the 1948-49 excavations are either lost or mislaid, as also are most of the finds. Secondly, excessive flooding prevented completion of certain trenches cut in 1954 and 1956. Lastly, the pottery selected for publication from the 1955 trench is lost. However, the remaining finds, a section, notes and photographs have been made available for publication.⁴ These and information about the other trenches are published below, together with the more conclusive findings from the 1973 excavations.

LOCATION AND VISIBLE REMAINS OF THE EARTHWORK (FIG. 2).

The earthwork is situated on the southern slope of the hill, which is formed of Claygate Beds (the loamy top of London Clay) in places capped or mixed with pebble gravel, especially in the middle of the wood at Site C. Visible remains extend from the west edge of the wood (c. TQ: 172934) to the kink in the west boundary of Field 157 (c. TQ: 174937), almost directly on the Ordnance Survey 450ft. a.m.s.l. contour line.

In the pig enclosure at the west edge of the wood there are traces of a low bank with a silted-up ditch on the south side, both in places badly disturbed by 19th-20th century gravel and clay diggings. There is a fine section of the bank and ditch on the east side of footpath 1 and traces of a south outer-bank. The gap between this and the next section is quite possibly a contemporary causeway and the absence of the bank at this point would seem to support this. The section to the east is in fine preservation but with the north bank less apparent. Between footpaths 2 and 3 the north bank is in fine preservation but the outer-bank is less apparent. Footpath 3 crosses the earthwork on a post-ditch causeway, which is probably of medieval date. Beyond, the banks and ditch remain intact and continue to the west edge of the clearing. Here, immediately to the west of a tall holly tree, the earthwork ends and is crossed by a later north-west to south-east bank-with-ditch, which forms the west boundary of the clearing. On the east side of the clearing is a parallel bank and ditch boundary.

It is evident from John Rocque's Map of Middlesex, of 1754, (Sheet 2) that this clearing was a vista or avenue connected with the Duke of Chandos's estate at Canons. At this point on the map the vista, which ends at Wood Lane, is flanked on the west side by the wood and on the east side by two rows of trees. However, the ancient earthwork is not illustrated. Mention is made in the Chandos Papers of 'clearing the grand avenue in Peer's Wood'.⁵ This clearing dates from the early 18th century.

The bank of the earthwork reappears immediately to the east of footpath 4 and ends just west of the boundary of Field 157. The ditch is represented by a slight depression on the south side of the bank.

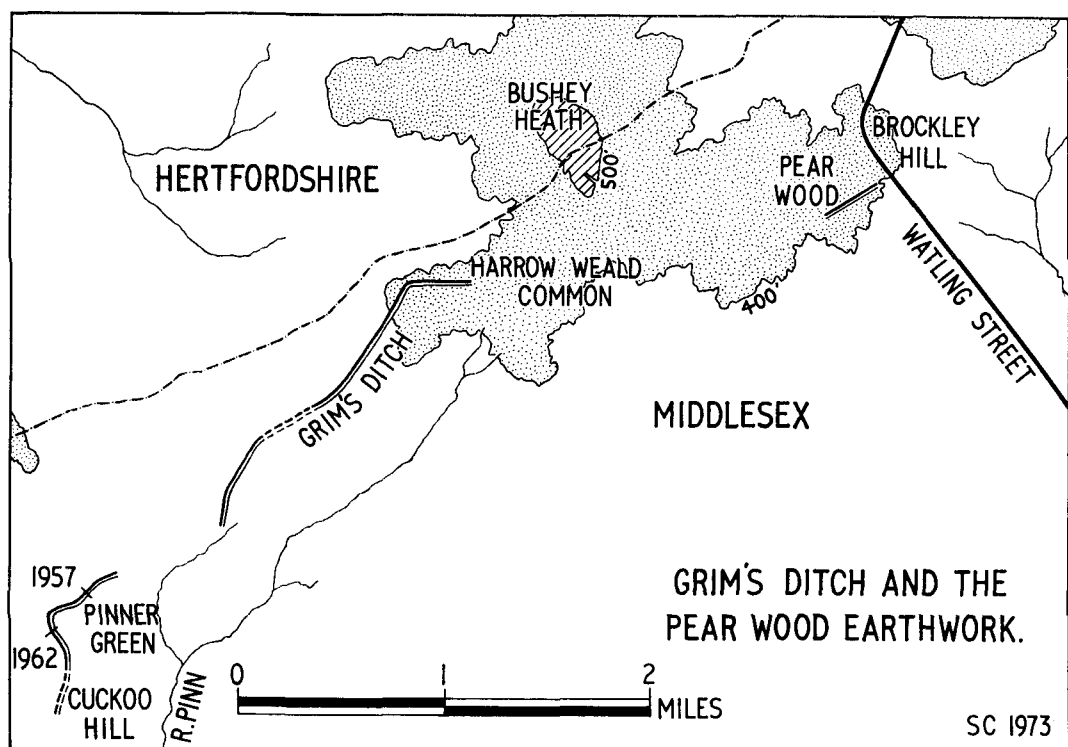


Fig. 1. Grim's Ditch and the Pear Wood earthwork. (Crown Copyright Reserved)

THE EXCAVATIONS (FIG. 2).

SITE A, 1948-49.

In 1948-49 the late Mr. P. Davenport cut a large trench at right-angles through the bank and ditch, a little to the west of footpath 2.⁶ Quantities of Roman coarse pottery, a coin, nails and sherds of native ware were recovered from the ditch, and a sherd, apparently of Iron Age 'A' type,⁷ and fragments of burnt clay were recovered from the bank.

SITE B, 1954.

In 1954 the late Mr. L. Probert cut a trench 20ft. 6ins. by 4ft. across part of the ditch between footpaths 2 and 3.⁸ This trench provided evidence of partial recutting of the ditch, probably in the early 18th century. At the bottom of the recut and at a depth of 5ft. was a layer of peg-tiles resting on a layer of flints. This lining served to facilitate the seepage of water for drainage purposes. Below was the silt and gravel fill of the ditch, from which sherds of Roman coarse pottery were recovered. Bordering the ditch on the north side was part of the dirty gravel bank and below, the old turf line, from which no finds are recorded. Flooding prevented the completion of this trench. However, the ditch was found to be about 14ft. wide and at least 5ft. 6ins. deep.

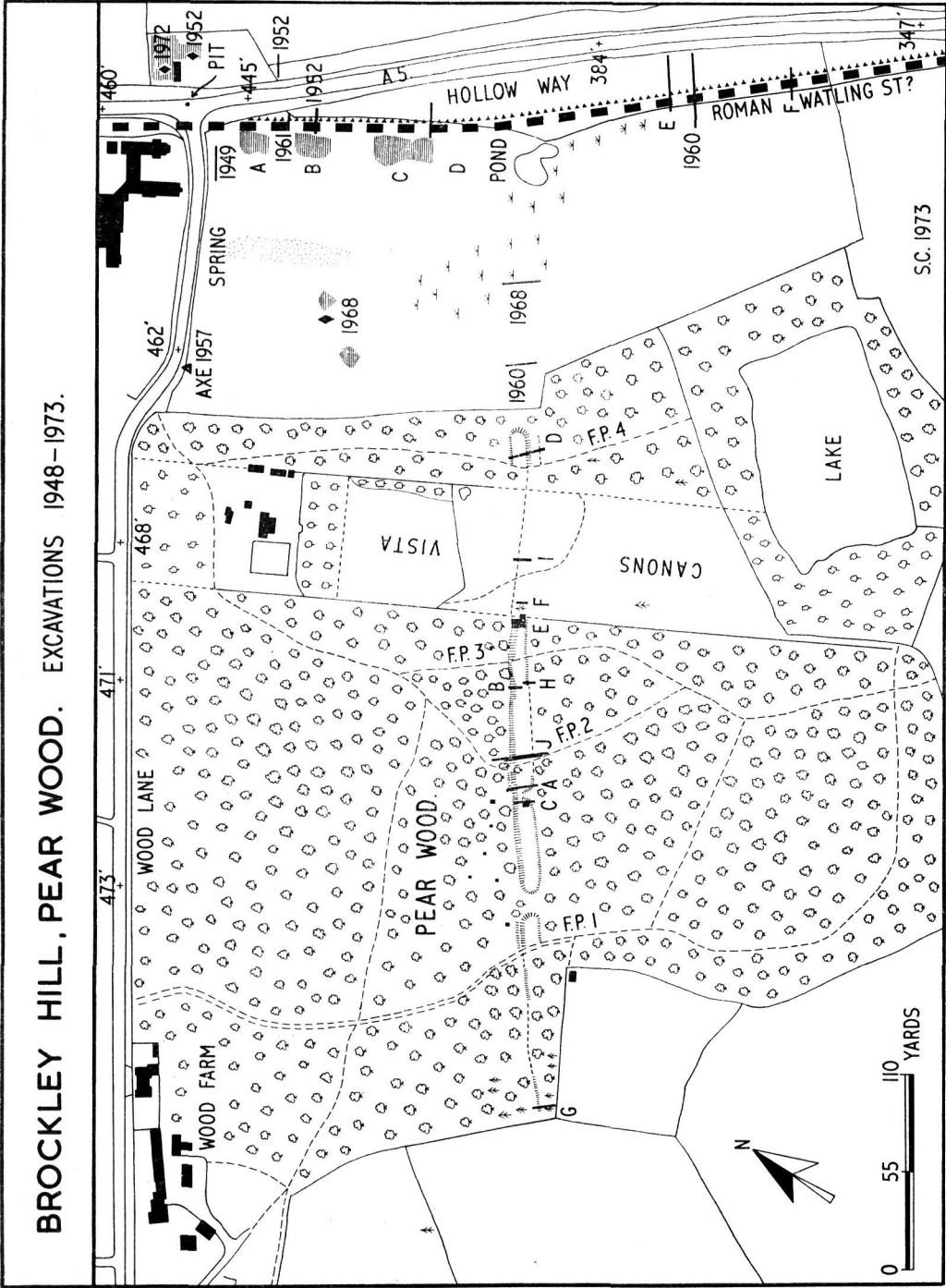


Fig. 2. Sites excavated in Pear Wood, 1948-1973. (Crown Copyright Reserved)

EXCAVATIONS BY MR. P. G. SUGGETT AND THE NORTH MIDDLESEX ARCHAEOLOGICAL RESEARCH COMMITTEE 1955-59.⁹

SITE C, 1955¹⁰ (Figs. 2-3).

In August 1955, a trench 40ft. by 4ft. was cut across the bank and ditch between footpaths 1 and 2. The ditch was found to be V-shaped with a U-shaped runnel at the bottom and was 14ft. wide by 5ft. 6ins. deep. Part of the bank on the north side was sectioned and found to consist of dirty yellow gravel, as much as 3ft. thick.¹¹ On the south side of the ditch was found part of the outer-bank, which at the south baulk was 2ft. thick. It also consisted of dirty yellow gravel. Apparently contemporary with the south bank was a hole, possibly a post-hole 9ins. in diameter by 1ft. 3ins. deep and dug into orange clay with gravel, the natural subsoil. If a post-hole, possibly it served with others as a revetment, or a marker for the excavation of the ditch. Surprisingly, no finds were recovered from the north and south banks and ancient turf-lines were not present beneath them.

An extension 12ft. by 8ft. was cut on the west side of the trench. The upper layers of ditch-silting contained sherds of Roman coarse pottery, an iron spearhead (Fig. 4) and tile fragments. Layer 5, smooth grey silt, contained Roman tile fragments, samian ware and coarse pottery sherds including sherds of the neck of a Hofheim type flagon of mid-1st century date.¹² There were also sherds of native ware in this layer. Below, layer 6, primary silting, contained a few sherds of native ware.

In addition, a number of trial trenches were cut to the north, north-west and west but these provided no evidence of Belgic or Roman occupation.

THE SPEARHEAD (FIG. 4)

DR. W. H. MANNING

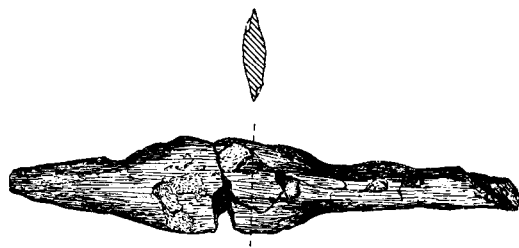


Fig. 4. Pear Wood: Iron Spearhead from Site C, 1955 ($\frac{1}{4}$)

It is difficult to be precise about the date of spearheads, but the way in which this example has an almost oval blade, which narrows into an elongated tip, is characteristic of a type of Roman spear and there seems no reason to question a Roman date. Published examples are rare, but a more exaggerated example is known from Richborough.¹³ In addition, an interesting group is to be found at the Chesters Museum in Northumberland. Some of these are very exaggerated with almost circular bases to the blades, but others offer a close parallel to this Brockley Hill example.

The type continued into the Saxon period as examples from cemeteries at Highdown, Sussex and Little Wilbraham, Cambridgeshire show.¹⁴

This spearhead is severely corroded and the socket is partly broken. It is 279 mm long and 54 mm wide at the blade.

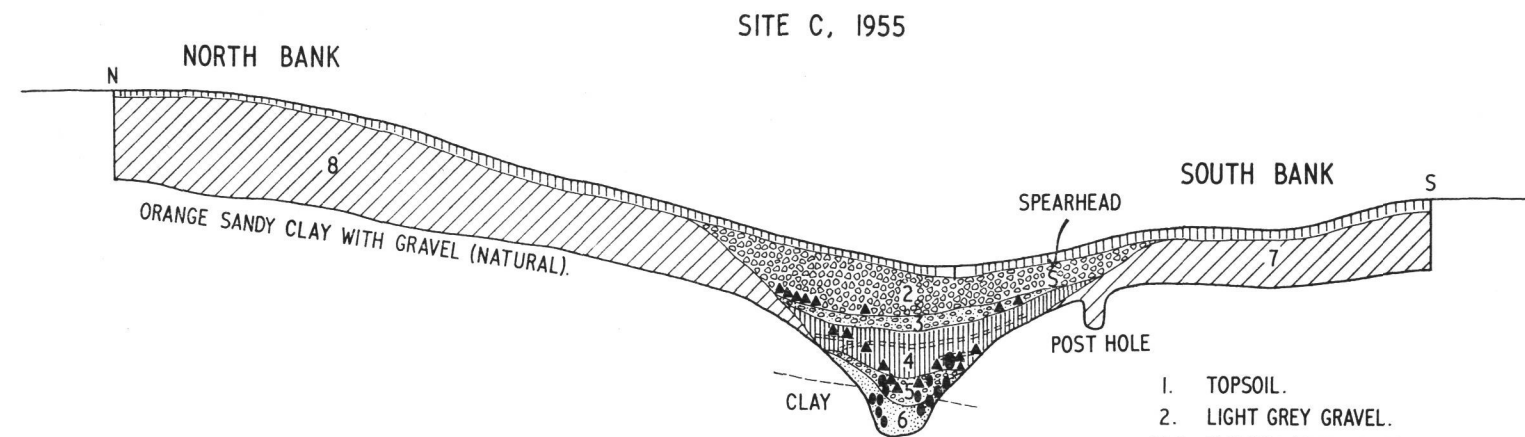
SITE D, 1956.¹⁵

This trench, 44ft. by 5ft., was cut across the bank immediately to the east of footpath 4, about 50ft. west of the boundary of Field 157. As expected, the ditch was found to lie on the south side of the bank, from the washdown of which were recovered sherds of native ware and 1st-2nd century coarse pottery. Excessive flooding prevented complete excavation and although it was not possible to determine its width, the ditch was at least 5ft. 6ins. deep. A buried turf line containing charcoal fragments was found below the clay and gravel bank, but no finds are recorded from this layer.¹⁶ However, a sherd of native ware was recovered from the bank itself. A small trench was cut immediately to the north, but this provided no finds from the buried turf-line.

SITE E, 1956.

An L-shaped trench was cut across the west boundary of the clearing with the object of sectioning the north-west to south-east bank and ditch and establishing their relationship with the linear earthwork. This cutting revealed a brick culvert of c. early-18th century date, the trench for which had been dug into the silting of the

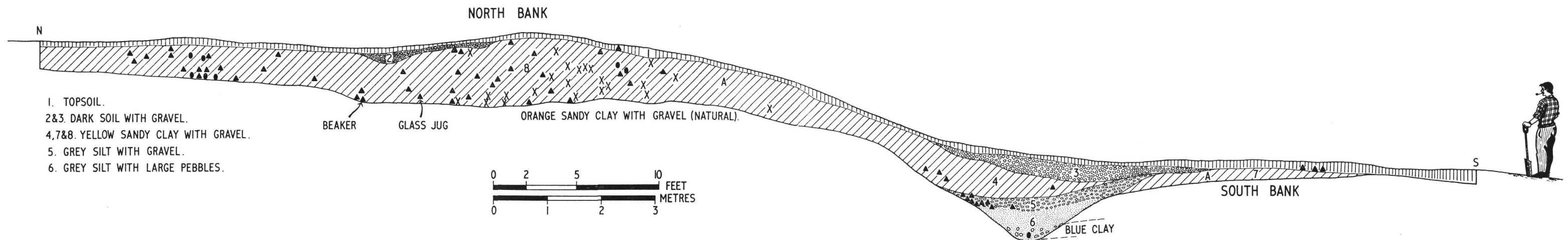
BROCKLEY HILL, PEAR WOOD.
GRIM'S DITCH(?) SECTIONS 1955 & 1973.



● NATIVE WARE ▲ ROMAN FINDS
A BURNT CLAY X IRON NAILS

1. TOPSOIL.
2. LIGHT GREY GRAVEL.
- 3&5. SMOOTH GREY GRAVEL.
4. COARSE GREY GRAVEL.
6. PRIMARY SILT.
7. DIRTY YELLOW GRAVEL, S. BANK.
8. DIRTY YELLOW GRAVEL, N. BANK.

SITE J, 1973



S.C. 1973.

Fig. 3. Pear Wood earthwork sections, Site C, 1955 and Site J, 1973

ancient ditch. The cross-bank above the culvert is the hedge line and west boundary of the clearing and it is clear that both were associated with the Canons vista. Clearly the culvert was constructed to drain the water from the ancient ditch into the later boundary ditch of the vista and there can be little doubt that it is contemporary with the recut of the ditch further to the west at Site B.

SITE F, 1956.

This trench, 18ft. by 2ft. 6ins., was cut in October-November, 1956, 15ft. east of the previous trench and on the line of the ancient ditch. As mentioned above, there are no surface remains of the bank and ditch in the clearing. As at Site B, there was a recut, at the bottom of which, at a depth of 5ft., was a layer of tiles, bricks and flints. The infill of the recut comprised a layer of grey silt, above which was a thick layer of pebbly soil. The ancient ditch at this point is 14ft. wide and the bank has been levelled.

SITE G, 1956.

In August-November, 1956, a trench 50ft. 6ins. by 4ft. was cut at the west edge of Pear Wood. It revealed a westerly continuation of the ditch, in the presumed middle silting of which were two Roman sestertii and sherds of native and Roman pottery. As at Sites B and D excessive flooding prevented complete excavation.¹⁷

THE COINS: Presumed middle silting of the ditch.

1. Ae sestertius, almost completely illegible. c.A.D. 150-200?

Obv. Head right, Marcus Aurelius?

Rev. Standing figure.

2. Ae sestertius, c.1st-2nd century.

Obverse and reverse illegible.

It is evident from the marks of corrosion on these two sestertii that they had been in contact with other coins in the ground and presumably represent part of a dispersed hoard.

SITE H, 1958.

In 1958 a trench was cut immediately to the south-west of Site B in order to section part of the ditch and its south lip. The outer-bank was found, containing sherds of native ware and Roman coarse pottery. A few small sherds of native ware were also recovered from the old ground surface below this bank. It is clear that the outer-bank is not pre-Roman.

SITE I, 1959.¹⁸

In the Summer of 1959 a final trench, 34ft. by 3ft. 4ins., was cut in the clearing, 105ft. east of Site F. At the bottom of the ditch was a thin layer of gravel, above which was a layer of silt 1ft. 3ins. thick containing sherds of Roman coarse pottery. The bank on the north side had been levelled and part of it, consisting of yellow clay, had apparently been tipped forward into the top of the ditch. There can be little doubt that this took place during the making of the Canons vista. The ditch was found to be 5ft. deep by an estimated 20ft. wide.

EXCAVATIONS IN 1973.¹⁹

SITE J, 1973 (PLATES I-3 AND FIGS. 2-3).

The inconclusive dating evidence from the excavations described above prompted the writer to cut a further trench in March-May, 1973. This trench, which was 87ft. long by 6ft. wide, was cut at right-angles across the bank and ditch immediately to the east of footpath 2. The earthwork was found to consist of a V-shaped ditch, an unexpected 23ft. wide by 5ft. 4ins. deep, with on its north side a bank 4ft. thick and on its south side a minor outer-bank, 15ft. 6ins. wide by 8ins. thick. Although not completely sectioned the earthwork is an estimated 90ft. wide but clearly the north bank was originally narrower and more pronounced. Both the north and south banks comprise sandy yellow clay with gravel, containing charcoal fragments, and as at Site C, ancient turf-lines were not present beneath them. Layer 4 (Fig. 3), also comprising sandy yellow clay with gravel, represented washdown from the north bank, layer 8, into the ditch. However, it was not found possible to detect a division between this washdown and the bank remains *in situ*, and this was in no way helped by the presence of numerous tree roots. Although there was no evidence of revetting, a gully-like feature on top of the north bank and parallel with the ditch may represent a palisade slot. However, no finds were recovered from this feature and its date cannot be certain. The natural subsoil consists of stiff orange sandy clay-with-gravel, below which at one point is a bed of blue clay.

A quantity of native ware, Roman tile fragments, iron nails, glass and Roman coarse pottery sherds was recovered from the north bank (Figs. 5-6). Notable finds include sherds of a colour-coated beaker, 4th-century, the rim of a black-burnished platter, c.mid-3rd-4th century (Fig. 5, 3) and fragments of a glass jug (Fig. 6). A fragment of burnt clay was recovered from the south bank. A small sherd of native ware was recovered from layer 6, grey silt, the primary silting of the ditch, different from layer 5 above only in that it

contained large flint pebbles. Layer 5, which contained Roman coarse pottery sherds (Fig. 5, 7–10) and tile fragments, was sealed by layer 4, the washdown of the north bank into the ditch. A few Roman coarse pottery sherds, including the rim of an amphora (Fig. 5, 11), were recovered from this layer. From the topsoil and resting on the north bank was a flanged-bowl sherd of 4th century date (Fig. 5, 12) and, on the south bank, sherds of a late Roman wide-mouthed jar (Fig. 5, 13).

Throughout the period of excavation, the ditch, which slopes from west to east, was subject to severe flooding and the water table, which lay at a depth of 1ft. 6ins. remained constant.

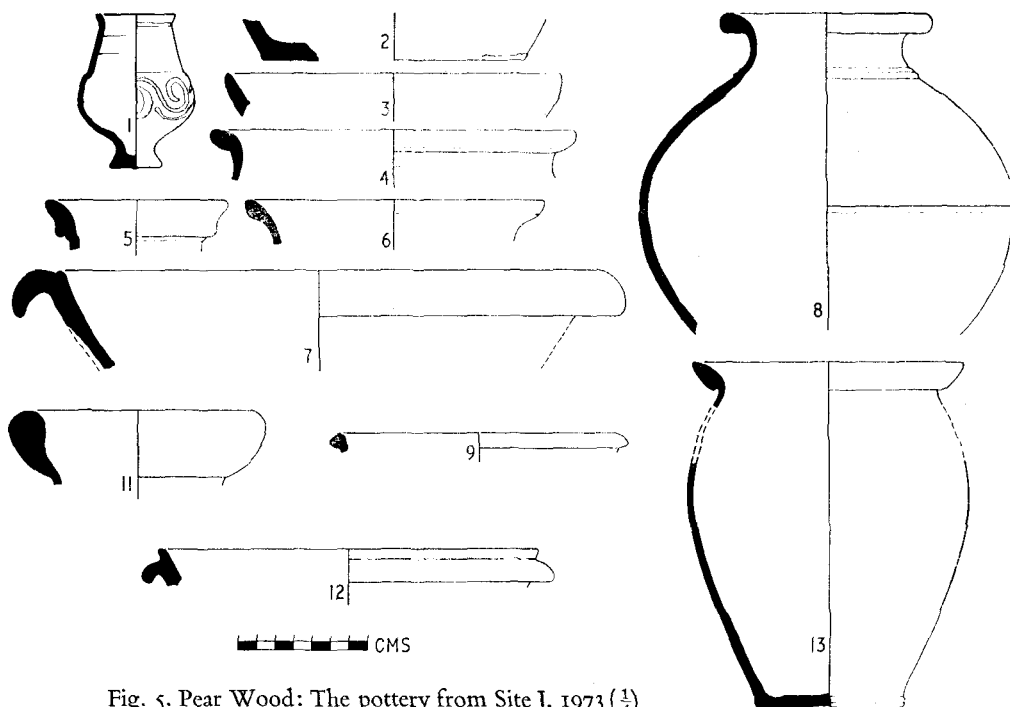


Fig. 5. Pear Wood: The pottery from Site J, 1973 ($\frac{1}{4}$)

THE FINDS I: POTTERY (FIG. 5).

The potsherds described below are in worn or weathered condition and with the possible exception of vessel No. 13 all may be regarded as residual.

NORTH BANK. LAYER 8, YELLOW SANDY CLAY WITH GRAVEL.

1. Narrow-mouthed, colour-coated beaker in hard fine-textured brownish-orange ware with brownish-black slip and white painted scroll decoration. This vessel, which was probably manufactured at the Nene Valley potteries, is datable to the first half of the 4th century.²⁰ Cf. Form basically similar to Gillam,²¹ 226, 57. 4th century.
2. Base of a large jar or flagon in granular greyish-buff ware. 1st–2nd century.
3. Platter in fine sandy grey ware with black-burnished exterior. Cf. Brockley Hill, 1970,²² 154, 26–28. 4th century.
4. Wide-mouthed jar in granular pink ware. 1st–2nd century.
5. Hofheim type flagon in hard granular buff ware. Cf. Brockley Hill, 1972²³, 38, 17–46. Mid-first century.
6. Wide-mouthed jar in brownish-orange vesicular ware with smooth exterior and dark grey gritty core. Some combed sherds in identical ware are probably from the same vessel. Probably 3rd–4th century.

DITCH. LAYER 5, GREY SILT WITH GRAVEL.

7. Weathered sherds of a mortarium in reddish-brown ware containing flint grits. Neronian–Flavian date is likely.
8. Cordoned jar in fine sandy grey ware with traces of a darker slip.
9. Roll-rimmed bowl in sandy grey ware. Cf. Brockley Hill, 1970, 154, 22–23. Late 3rd–4th century.
10. (Not illustrated). A sherd of the base of a bowl or platter in light grey ware with black-burnished exterior. 3rd–4th century.

DITCH. LAYER 4, WASHDOWN FROM THE NORTH BANK; YELLOW SANDY CLAY WITH GRAVEL.

11. Roman amphora rim in granular brownish-buff ware containing grey flint grits. Date difficult to determine.

TOPSOIL. LAYER 1, RESTING ON THE NORTH BANK.

12. Flanged bowl in fine sandy grey ware with black-burnished exterior. Cf. Brockley Hill, 1970, 154, 29–32. 4th century.

TOPSOIL. LAYER 1, RESTING ON SOUTH BANK.

13. Sherds of a wide-mouthed jar with undercut rim, in sandy buff ware containing pink translucent grits. Parts of the rim, walls and base are burnt black. A late Roman date is indicated.

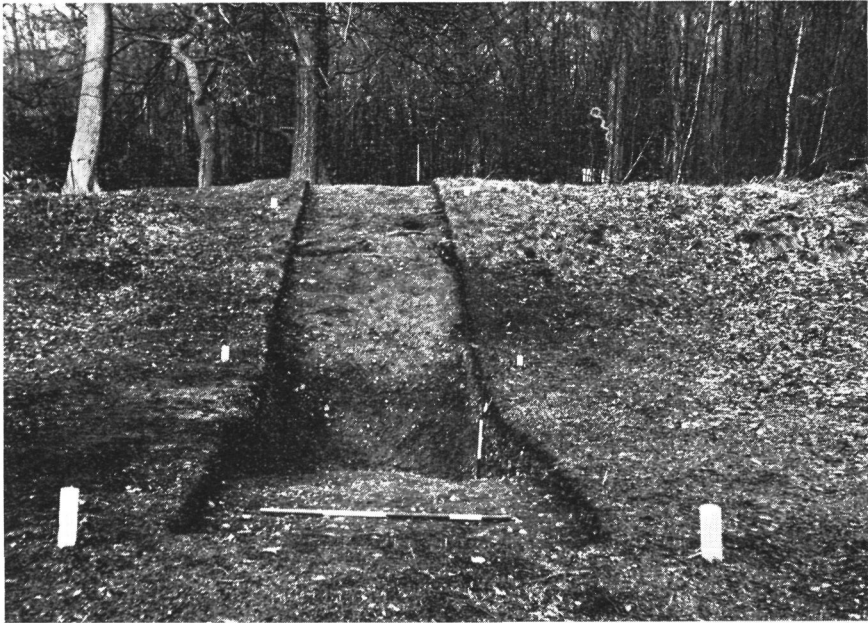


Plate 1. Excavations in Pear Wood: Site J, 1973. View to north before removal of the north and south banks

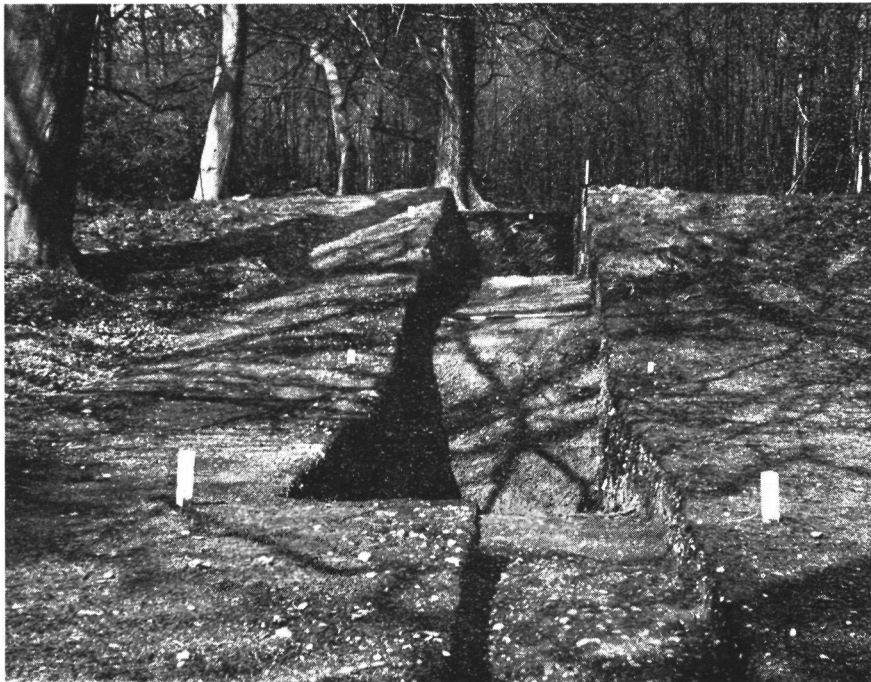


Plate 2. Excavations in Pear Wood: Site J, 1973. View to north following removal of the banks and before cutting of extension to the north

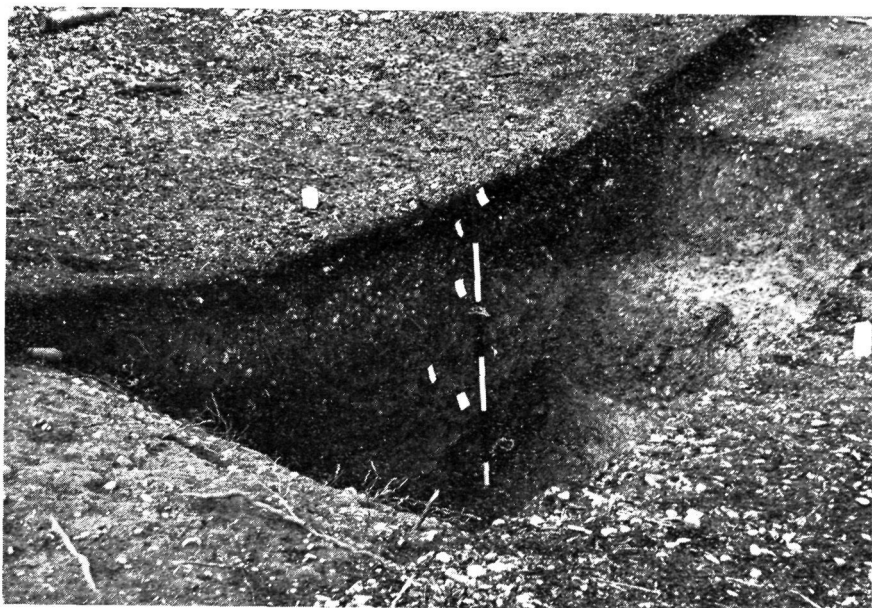
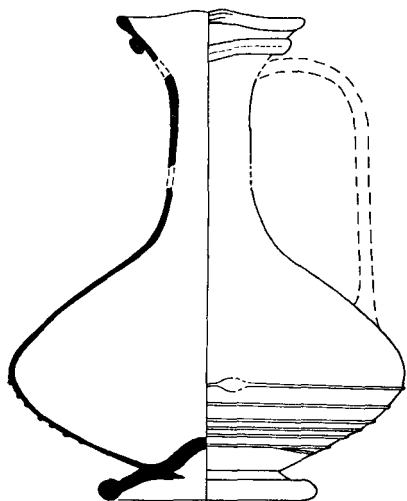


Plate 3. Excavations in Pear Wood: Site J, 1973. View of ditch to south-east, before removal of south bank

Fig. 6. Pear Wood: Glass jug from Site J, 1973 ($\frac{1}{2}$)

GLASS JUG (FIG. 6)

DR. D. B. HARDEN

THE FINDS II:

FROM THE BOTTOM OF THE NORTH BANK, LAYER 8.

Description

Bottom, most of lower body, some portions of the shoulder and base of neck, two fragments of neck and one fragment preserving the pincer lip of the jug. Squat, angular body, tallish neck. Pourer-lip probably set at right angles to a handle (which must have been present though none of it is preserved). Olive-green glass without weathering.

Rim splayed, lip rounded and slightly thickened, and pincer out on one side; tall, cylindrical neck, curving out at the base to meet shoulder in simple curve; squat, carinated body; pushed-in, tubular base-ring, with deep, blunt-ended kick, under which is the mark of a ring punty-wad. Beneath the rim a thick strengthening trail; on lower half of body a much thinner sevenfold spiral horizontal trail, dropped on at carination and winding downward; both trails in relief and self-coloured.

The extant fragments leave us in no doubt about the general shape of the vessel and that it belongs to form 53 of Morin-Jean and form 88c of Isings. The profile is clear from the base of the neck downward; what is in doubt is the

height of the neck and the size and shape of the handle, for as can be seen from Morin-Jean's illustrations (Morin-Jean *La Verrerie en Gaule sous l'empire Romain*, Paris (1913), 112 figs. 134-7) the handles on this type can be of very different shapes and styles. A characteristic of the type, however, is that the handle is set at right angles to the pourer-lip.

There are useful discussions of the type by Morin-Jean (*loc. cit.*) and also by Isings (C. Isings, *Roman Glass from Dated Finds*, Groningen (1957) 106, form 88c), who cites many parallels that are claimed to range in date from the late-2nd to the 4th century. The type is wholly north-western and seems to be more at home in Gaul than in the Rhineland, to judge from the find-spots listed by Morin-Jean and Isings. Isings cites an example from Colchester (T. May, *Catal. Roman Pottery in Colchester and Essex Museum*, Cambridge (1930) 178, pl. 86, no. 91), and the only other example from Britain that springs to mind is a fragmentary one in the British Museum (1900.6 — 14.1), which is said to come from Icklingham, Suffolk.

I do not think that any of these jugs can be early 3rd century, let alone 2nd century; the type began, perhaps, in the 3rd century, but is primarily a 4th century one.

THE CHARCOAL FRAGMENTS

DR. M. Y. STANT

Royal Botanic Gardens, Kew

DITCH. LAYER 4, WASHDOWN OF NORTH BANK.

Unidentifiable carbonized fruit.

DITCH. LAYER 5, GREY SILT WITH GRAVEL.

Badly compressed fragments, probably all Oak, *Quercus robur* type.

SOUTH BANK. LAYER 7, YELLOW SANDY CLAY WITH GRAVEL.

Fragments of Oak, *Quercus robur* type and fragments ofHazel, *Corylus avellana* L.

NORTH BANK. LAYER 8, YELLOW SANDY CLAY WITH GRAVEL.

Mostly Oak, *Quercus robur* type, a few fragments of Hazel, *Corylus avellana* L. and a small fragment of a species of *Acer* probably the Field Maple, *Acer campestre* L.

SUMMARY OF RESULTS

Excavations have shown that this earthwork is about 90ft. wide and consists of a V-shaped ditch varying from 14–23ft. wide and 5–6ft. deep, with a large bank on its north side and a minor outer-bank on its south side. A notable feature is the size of the north bank in relation to the ditch and it is evident that the excavation of the latter would not have provided sufficient material for the construction of the former. Indeed, it appears that the construction of this earthwork did not comply with the normal practice of ditch dug as a quarry to provide material for the bank. Clearly additional clay-with-gravel was quarried from elsewhere, arguably fairly nearby. A suggestion that the earthwork may have been constructed in two stages these perhaps close in date, may provide the answer.²⁴ Stage I, would have represented the construction of the north bank, the material for which was quarried from an area nearby, where there was a scatter of occupation debris. A large number of disused quarries are situated at various points in the wood and it is not unreasonable to assume that clay-with-gravel was extracted from this general area. Following the completion of the north bank it became desirable to further emphasise the appearance of the earthwork by cutting a parallel ditch on its south side, the spoil from which was thrown up on the south downhill side to form the outer-bank; thus Stage II.

The earthwork is situated on a gentle southerly slope which greatly enhances the appearance of its north bank. Excavations have as yet provided no clear evidence of palisading or re-vetting, and it may be doubted whether either was necessary for the function which the earthwork served. Grass, weeds, thorns, brambles and the like would have served to consolidate the north and south banks at least for the foreseeable future. That this earthwork is at least a quarter of a mile long is now quite clear. However, excavation and observation in Field 157 in 1960 and 1968 confirms that it ends at the east edge of Pear Wood, about 200 yards west of Watling Street. Doubtless the marshy conditions to the east in the central area of the field made it unnecessary for the earthwork to be continued farther and there is no evidence of it on the east side of Watling Street.²⁵ Clearly it possessed obstructive qualities, however, to judge from its dimensions it can hardly be described as a formidable defensive barrier.

A satisfactory result of the 1973 excavation is that it has provided evidence which indicates that this earthwork is of late or post-Roman date. It is earlier than the early-18th century Canons vista which cuts across it and, if at one time called 'Grymesdich', is presumably earlier than 1535, the date of the valuation of the Manor of Canons. Moreover, if it represents an easterly continuation of the Harrow and Pinner Grim's Ditch it is surely earlier than 1306.²⁶ Satisfactory explanation is now provided for the presence of Roman coarse pottery near the bottom of the ditch in the trench cut at Site 1, in 1959. The small quantities of native ware and early Roman finds recovered from the excavations in 1948–59 and 1973 are clearly residual and are derived from occupation debris disturbed during the construction of the earthwork. In addition, it should be stressed that the 4th century finds from the bottom of the north bank merely provide a *terminus post quem* for the construction of the earthwork, and also appear to be residual. Indeed if this earthwork is of 4th century date, it is difficult to speculate what function such an ambitious undertaking might have served then. The problem is in no way helped by the present limited knowledge of late Roman occupation at the nearby settlement of Sulloniaca (?) adjacent to Watling Street and it may be doubted whether the two were in anyway related. However, it is possible that a late Roman settlement was situated just to the north of the earthwork.

The question is again raised, is the earthwork an easterly continuation of the Harrow and Pinner Grim's Ditch? The documentary evidence mentioned above would seem to support its being so. Furthermore it is noteworthy that both Grim's Ditch and the Pear Wood earthwork have the characteristic large low bank with comparatively small ditch on the south side and are of similar dimensions. It is hoped that the question will be solved when further trenches are cut at points between the two; in particular in the field to the west of Pear Wood. Regrettably it was not possible to excavate in this field at the time of writing due to precautions against swine vesicular disease at nearby Wood Farm. A wide dark line visible on an aerial photograph of this field,²⁷ continuing westwards from the boundary of the wood at Site G, appears to represent a continuation of the earthwork. However, only excavation will show whether or not this is so.

If then the Pear Wood earthwork represents an easterly continuation of Grim's Ditch its function can be seen as forming part of a territorial boundary at least 6 miles long, crossing both low-lying fertile clay-land and gravel upland. It would imply that the small quantity of Iron Age pottery recovered from the bank and ditch of Grim's Ditch at Pinner Green in 1957²⁸ is residual, being in no way associated with the construction of the earthwork.

The name Grim, meaning the Devil, suggests a pre-Christian Saxon origin, so by inference the dating for the boundary would seem to be limited to sometime in the 4th-6th centuries A.D. Sir Mortimer Wheeler in his detailed discussion of the Grim's Ditch complex of Middlesex, Hertfordshire and Buckinghamshire²⁹ suggests amongst other inferences, that it "cannot be pre-Saxon, is unlikely to be later than 6th century and may be supposed therefore to represent a phase during the Saxon settlement of the 5th or 6th century when Teutonic farmers on the northerly fringe of the London Basin found it necessary to define their claims against occupants of the Basin or at least the encircling uplands". Assuming again that the Pear Wood earthwork is part of Grim's Ditch, it may be said that the 1973 excavation has provided evidence which appears to support a 5th or 6th century date, at least for the Middlesex earthwork. However, not a single artifact from these or previous excavations is assignable to this early Saxon period. Indeed the absence to date of recognizable 5th-6th century Saxon artifacts in South-West Hertfordshire,³⁰ the Vale of St. Albans³¹ and North Middlesex³² is noteworthy and surely significant. It may be doubted, therefore, whether this region was subject to Anglo-Saxon domination until the late 6th-early 7th century, following Cuthwulf's decisive victory over a British force at Bedcanford (Bedeanford for modern Bedford mis-spelt?) in 571, the capture of Limbury (nr. Luton), Aylesbury, Bensington and Eynsham,³³ and the subsequent Saxon encroachment southwards. St. Germanus, Bishop of Auxerre, visited Verulamium (St. Albans) in A.D. 429 and again in c. A.D. 447 and found it still run on Roman lines. He is said to have visited the shrine of St. Alban and to have helped repel a barbarian attack. Excavations at Verulamium in 1959³⁴ provided evidence of sub-Roman survival as late as c. A.D. 450, if not later. The Alban tradition suggests that Christianity survived throughout the Dark Ages in the Vale of St. Albans and that transition to Anglo-Saxon culture, arguably by intermarriage, was a slow process. Late survival of Romano-British culture in the London region is perhaps suggested by the statement that in A.D. 456-57 'the Britons then forsook Kent, and in great terror fled to London'.³⁵ Perhaps Grim's Ditch dates from sometime in the 5th century and was constructed as a political boundary³⁶ between the territories of the sub-Roman communities occupying London and Verulamium. Its eastern sector would have been ideally situated, lying near to

Roman Watling Street and near to the highest land between London and Verulamium. However, such speculation requires adequate confirmation, which can only be provided by further excavations in the two regions.

In conclusion the aim of this report has been essentially to place on record the work conducted to date and it is stressed that further, large-scale excavations, on Grim's Ditch and the Pear Wood earthwork are clearly desirable.

NOTES

- ¹ H. J. W. Stone, 'The Pinner Grim's Dyke,' *Trans. London Middlesex Archaeol. Soc.* (1935) 284-301. See also H. Braun, 'Some earthworks of North-West Middlesex,' *Trans. London Middlesex Archaeol. Soc.* (1936) 379-88.
- ² 'A valuation of the Manor of Canons, Little Stanmore, made in 1535, mentions "2 fields called Grymesdich." The approximate locality of these fields is suggested by their being named in conjunction with Cloister and Pear Woods.' H. Braun, *op. cit.*, 381-382. Source, Misc. Accounts, Henry VIII, 2396.
- ³ Excavations in 1948-49, conducted on behalf of the Brockley Hill Excavation Committee and in 1954-59, the North Middlesex Archaeological Research Committee.
- ⁴ Mr. P. G. Suggett's excavation files.
- ⁵ C. H. C. Baker, *The life and circumstances of James Brydges, First Duke of Chandos* (Oxford 1949).
- ⁶ P. Davenport, 'Sulloniaca Excavations,' *Trans. London Middlesex Archaeol. Soc.* (1949-50) 172-74.
- ⁷ A few of the Roman sherds are housed in the Museum of London. Information about the Iron Age sherd from P. G. Suggett.
- ⁸ Section and plan with the writer.
- ⁹ Information from P. G. Suggett's files.
- ¹⁰ A cine film of the 1955 excavations has been deposited in Harrow Reference Library. The finds selected for inclusion in the report were lost following the death of Mr. F. H. S. Grant and an exhaustive search has failed to locate them. Cf. Minutes of the North Middlesex Archaeological Research Committee.
- ¹¹ A trial trench cut near Site C in 1973, revealed charcoal in the north bank.
- ¹² Now lost, however, it is shown on the cine film and listed in the finds register.
- ¹³ J. P. Bushe-Fox, *Richborough IV* (London 1949) pl. LVIII, 279.
- ¹⁴ G. B. Brown, *The arts in early England*, III (London 1903-37).
- ¹⁵ Section not completed and, therefore, not worth publishing.
- ¹⁶ Soil samples analysed by Dr. I. W. Cornwall.
- ¹⁷ As 15.
- ¹⁸ Duplicated report in the files of the North Middlesex Archaeological Research Committee.
- ¹⁹ Excavations by the writer on behalf of the Brockley Hill Excavation and Field-work Group.
- ²⁰ I am indebted to Mr. G. B. Dannell for examining and dating this vessel.
- ²¹ J. P. Gillam, 'Types of Roman coarse pottery vessels in Northern Britain,' *Archaeol. Aeliana* (1957).
- ²² S. A. Castle, 'Excavations at Brockley Hill, Middlesex, Sulloniaca, 1970,' *Trans. London Middlesex Archaeol. Soc.* (1972) 148-159.
- ²³ S. A. Castle, 'Trial excavations in Field 410, Brockley Hill Part 1', *London Archaeologist* (Spring 1973) 36-39.
- ²⁴ I am indebted to Dr. J. P. C. Kent for this suggestion.
- ²⁵ A bank in Field 413, on the east side of Watling Street, believed to have been a continuation of the earthwork was excavated by Dr. J. P. C. Kent in 1959 and was found to be a lynchet no earlier than c.1800.
- ²⁶ 'Grymesdich' is mentioned in the 1306 rental of the Priory of St. Bartholomew the Great, London, which is preserved in the Bodleian Library.
- ²⁷ An aerial photograph in Harrow Reference Library.
- ²⁸ Excavations on Grim's Ditch at Montesole Playing Fields, Pinner Green, (c. TQ: 114905) in 1957 showed that the earthwork consists of a wide low bank with a relatively small ditch on the south side. Quantities of Belgic pottery were recovered from the ditch and a hearth below the bank and sherds of hand-made jars of Iron Age 'A' type from the bank itself. In addition a small flint arrowhead of Beaker type was found to the south of the ditch. With the exception of the arrowhead and a flake, these finds, together with those from Pear Wood, 1955, are lost cf. footnote 10. The problematical section is housed in the Museum of London, as are the excavation notes and photographs.
A rescue excavation on Grim's Ditch at Mill Farm Housing Site, Pinner Green, (c. TQ: 111902) in 1962, provided a section of the ditch with a bank on its west side. Evidence was found to suggest that the ditch was probably originally 30ft. wide by 8ft. deep. There was no dating evidence. Cf. Report by A. Adam in the files of N.M.A.R.C.
- ²⁹ R. E. M. Wheeler, 'London and the Saxons,' *London Museum Catalogues* No. 6 (London 1935) 72-73.
- ³⁰ S. A. Castle, 'Archaeological Survey of South-West Hertfordshire', *Watford and South-West Herts. Archaeol. Soc. Bulletin* No. 14 (1971).
- ³¹ Excavations at King Harry Lane, St. Albans in 1966-68 disclosed a Saxon inhumation cemetery, which appears to belong to the 7th century or the end of the 6th century. I. M. Stead, 'Verulamium 1966-1968', *Antiquity*, 43 (1969) 46-47.
- ³² *V. C. H. Middlesex*, 1 (London, 1969) 75.
- ³³ Anglo-Saxon Chronicle. These dates are questionable.
- ³⁴ S. S. Frere, 'Excavations at Verulamium 1959, Fifth Interim Report,' *Antiq. J.* 40, 1, 2 (1960) 20-21.
- ³⁵ Anglo-Saxon Chronicle. Dates questionable.
- ³⁶ That Grim's Ditch was not a defensive work is clear from the section at Harrow Weald Common, where the earthwork faces higher ground to the south.

ACKNOWLEDGEMENTS

I would again like to express gratitude to the late Mr. Philip Suggett for permitting me to publish the results of his excavations and for his helpful advice and encouragement. Thanks are due to Mr. T. M. Gadsby and Mr.

A. C. Baker of the Estates Department of the Greater London Council for permission to excavate and for arranging the donation of the finds to the Museum of London. Mr. G. R. Roantree, Secretary of the Royal National Orthopaedic Hospital kindly provided facilities for the storage of tools.

I am indebted to Dr. D. B. Harden, F.S.A., for providing a report on the glass jug, Mr. G. B. Dannell for examining and dating the beaker, Mrs. K. F. Hartley, F.S.A., for her note on the mortarium sherds and Dr. W. H. Manning, F.S.A., for his note on the spearhead. Mr. W. A. Oddy of the Research Laboratory of the British Museum kindly dealt with the conservation of the spearhead. Mr. K. A. Howes of the British Museum kindly cleaned the coins and drew the human scale on the section. Mr. A. Porter, Mr. H. Prior and Mr. G. F. Cole are thanked for providing material relative to the previous excavations. Dr. J. P. C. Kent, F.S.A., is thanked for his many suggestions and encouragement.

Thanks must also go to the many individuals who assisted on the 1973 and previous excavations, for without their participation this report could never have been published.

Mr. Ralph Merrifield, F.S.A., of the Museum of London, kindly read this report in manuscript.

Both the Author and the Editors wish to express their thanks for the generous grants from the Department of the Environment and the Trustees of the former London Museum that made the publication of this report possible.

NOTES

This series of notes is used to provide a place to publish important individual objects or finds that would otherwise remain unpublished.—*Editor*.

A ROMAN SIGNAL TOWER AT SHADWELL, E.1.

AN INTERIM NOTE BY TONY JOHNSON

In December of 1973 the writer was invited by the London and Middlesex Archaeological Society to conduct an archaeological survey of derelict dockland to the east of St. Katherine Docks (Fig. 1). Finance for the project was provided by Riverside London Ltd., the Department of the Environment and the Greater London Council. Preliminary work was carried out using information from the Port of London Authority borehole records, 18th and 19th century surveys and a recent map of Roman and mediaeval findspots in Tower Hamlets prepared by Miss Pat Evans of the Southwark Archaeological Excavation Committee.

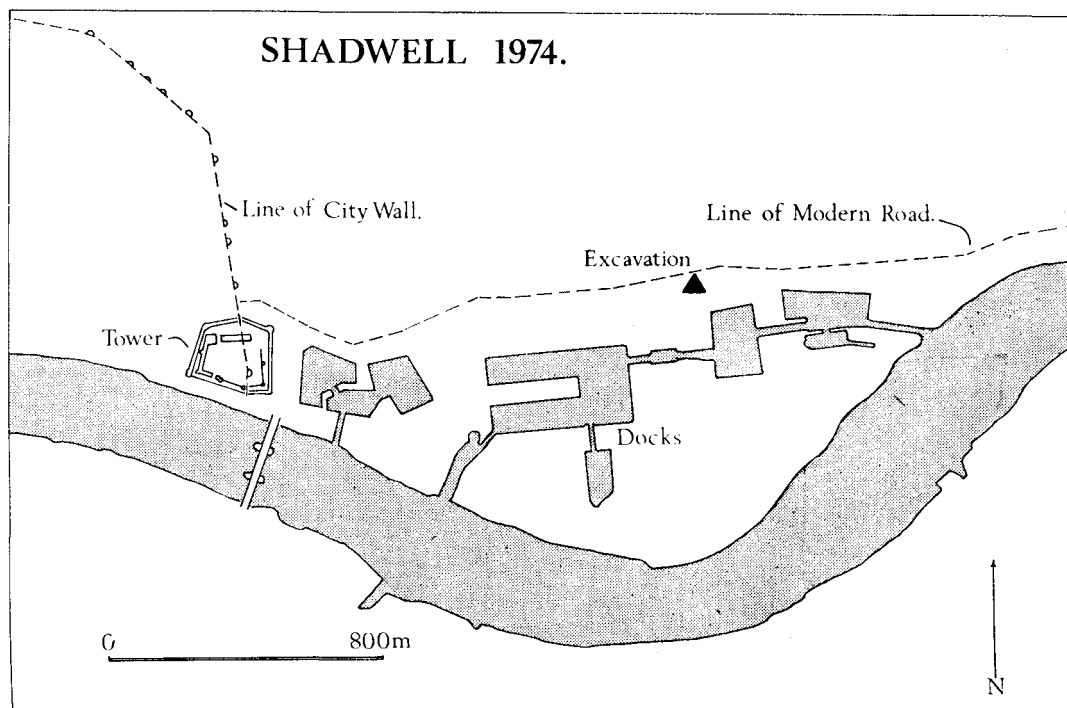


Fig. 1. Shadwell. Position of site and relationship to the Roman city.

An outline of archaeological potential was drawn up and submitted to the developers. A generous grant from Riverside London Ltd. enabled an exploratory excavation to be carried out within an area due for imminent re-development and assessed in the survey as likely to be of high archaeological potential.

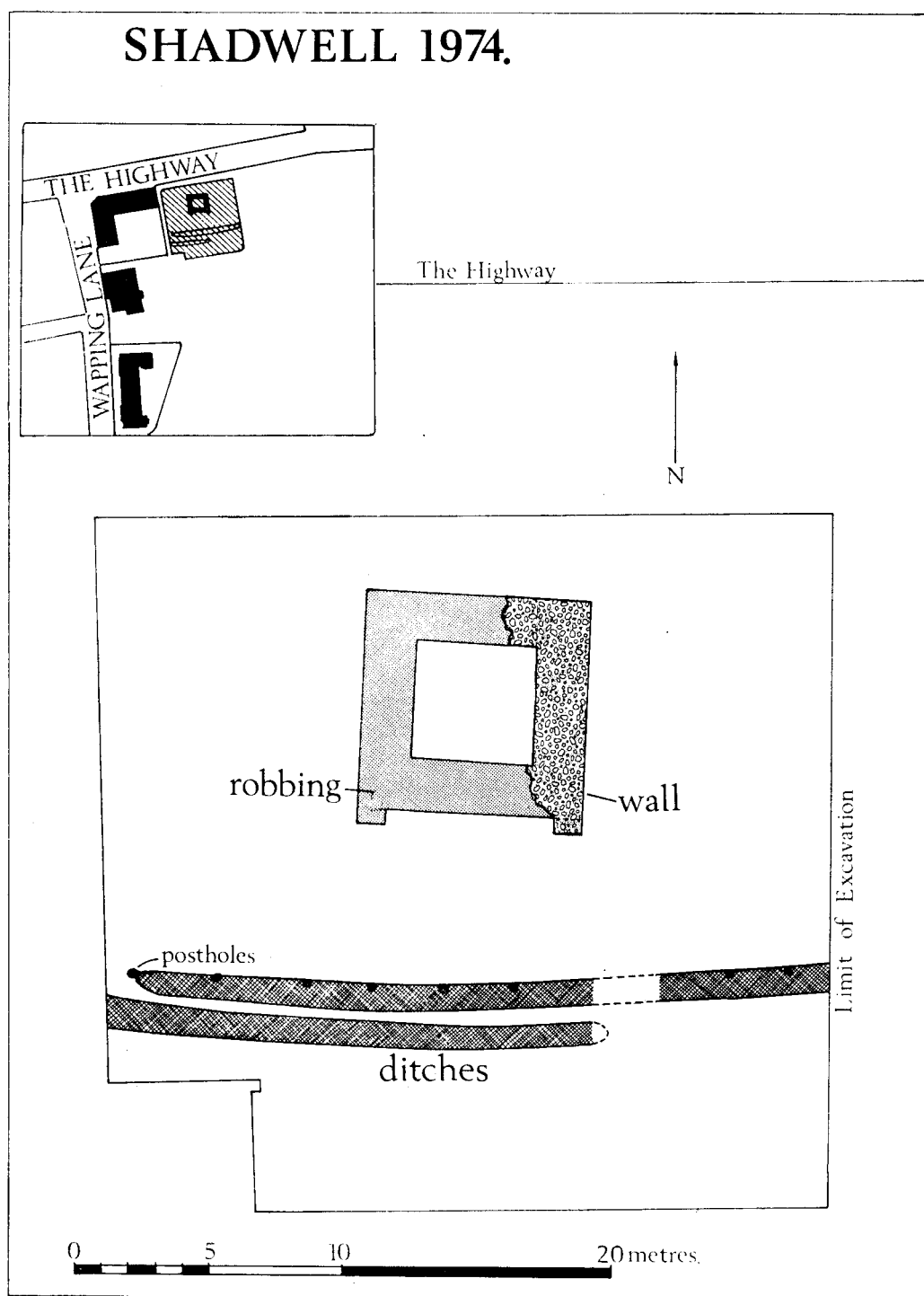


Fig. 2. Shadwell. Plan of main structure and ditches; and (inset) local position of site.

Work began in January 1974 and an area 5 x 20 m. was cleared of modern debris. At a depth of slightly more than 1 m. a surface was found which corresponded to the location of a yard known as Old Starch Yard on the 18th century maps. The yard area was marked by a single level of cobbles and brick together with numerous industrial tanks, pits and hearths. Excavation showed that these pits had been cut through various Roman deposits and into the underlying natural sand and gravel. In places post-medieval quarry-pits had disturbed large areas of the Roman material. No trace of medieval occupation was found; an homogeneous layer of soil, between 200–400 mm. in thickness, separated the post-medieval from the Roman deposits.

Further excavation revealed intrusive 17th century trenches following and robbing-out 2 m. wide Roman walls of a building 8 m. square. The east wall, protected by the line of an alley-way remained intact to the first level of bonding tiles, slightly above the contemporary Roman ground surface. The wall was of chalk and mortar construction with a knapped flint facing. Although the building had been constructed on a north–south slope no terrace had been cut. The foundations had been levelled by digging the foundation trenches deeper to the north. Two small buttresses had been constructed into the corners of the south wall (Fig. 2).

6 m. to the south of the building two parallel ditches were found. The excavation was extended to examine these, and other features in more detail. Neither of the ditches continued across the whole width of the excavation (Fig. 2) but they were found to overlap in front of the south wall. The inner ditch replaced a line of large upright posts.

Traces of clay floors, sill beam foundations and uprights, together with burnt wattle and daub walls, both within the area of excavation and in trial trenches cut to the east, showed that timber buildings had formed part of the layout probably contemporary with the stone building. Other features included an elaborate water system of clay-packed oak-plank construction and a water storage tank of similar build. Water-logged conditions in the tank had preserved organic material including leather and a large sample of seeds and pips. The earliest features produced coins of Carausius (A.D. 286–293). In all over two hundred coins were found. A distinctive bronze strap pendant (a terminal from a military belt [*cingulum*]) provided evidence for military occupation.

The ground plan, massive walls and ditches strongly suggest that the excavations have revealed the site of a signal station or watch tower, garrisoned at least on a temporary basis. and probably engaged, together with similar installations in controlling river traffic and relaying information, perhaps from the forts of the Saxon shore. The building would have been clearly visible against the skyline to observers on the eastern side of the city defences. Few signal stations are known from southern Britain although a group of three are associated with the East Anglian shore forts of Brancaster and Burgh Castle. Structures on the small scale of the Shadwell building, however, would easily be lost, especially underneath urban development such as modern-day Thameside.

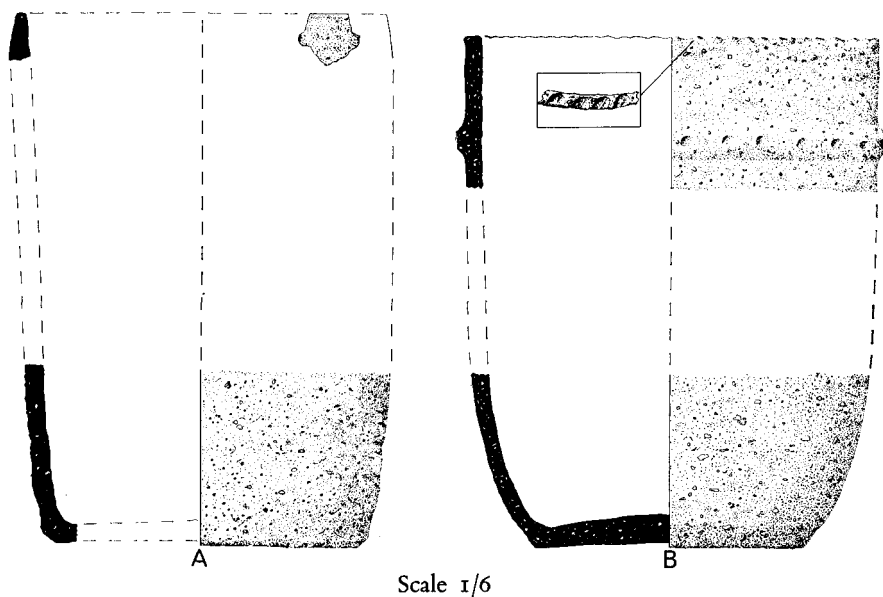
(The final report is now in preparation and it is hoped that it will be published in 1976.)

TWO BRONZE AGE URNS FROM KEMPTON PARK

DICK SHEPPARD

During the period 1971-1973 a series of excavations were carried out on Kempton Park racecourse (TQ 117699) in an attempt to locate the site of the royal medieval manor house that existed in the area between 1220-1374. Extensive remains of the seventeenth century house with its later additions were found but no feature found could be dated earlier than the sixteenth century. During the course of these excavations two Bronze Age urns of the Deverel-Rimbury type were found.

Urn A was found when cleaning the section of a machine dug trench. Only the bottom remained *in situ* the top half having been broken at some previous time, probably in the seventeenth century. It was found the "right way up" buried in brickearth with the base 510 mm below the present surface, just above natural gravel. The fabric is friable and contains a filler of crushed calcined flint. The outer surface has traces of slip and is brown in colour with patches of red. The interior also has traces of slip and is blackened. One plain rim sherd was found lying within the base. None of the body sherds found showed any form of decoration.



The second urn B was found 42 metres to the south-east of the previous urn when excavating an area between two seventeenth walls. There was seventeenth disturbance down to the top of the broken base which like the previous urn was the "right way up". It lay 700 mm below the present surface resting on natural gravel. This urn is larger than the first but the fabric is identical. It has a rim decorated with finger tip impressions together with a raised cordon decorated in the same manner.

It seems likely that these urns are remnants of a Bronze Age cemetery of the type recently discussed by Barrett.¹ The area around Urn B had been badly disturbed by the seventeenth century building so that there was no possibility of finding any more urns in this area. The area around Urn A appeared to be undisturbed but excavations over a wide area failed to produce any further evidence of a cemetery or of any other Bronze Age activity.

ACKNOWLEDGEMENTS

The excavation was carried out by the West London Archaeological Field Group on behalf of the Sunbury and Shepperton Local History Society with the aid of a grant from The London and Middlesex Archaeological Society.

I would like to thank the members of the above groups for their help with the excavations especially Mrs. B. Eastop and Mr. K. Sudul; and Mike Cotton for drawing the urns.

NOTES

¹ Barrett J. C. "Four Bronze Age Cremation Cemeteries From Middlesex". *Trans. London Middlesex Archaeol. Soc.* 27 (1973) 134.

BOOK REVIEWS

RALPH MERRIFIELD: *The Archaeology of London*, Heinemann Educational, 1975, £2.50. 96pp.

This attractively produced and well-illustrated little book is an introduction to the archaeology of the London region, ranging from the earliest appearance of man to the dawn of English civilization, when the pagan Saxons were converted in the seventh century. The second part of the book is a guide for those who wish to find visible traces of the past in the London region with lists of sites and museums to visit. There is a useful book list and the forty-five illustrations include some maps and time charts.

L.S.S.

DAVID GREEN: *The Gardens and Parks at Hampton Court and Bushy*, H.M.S.O. 40p. 47pp.

Part I deals with the historical development of the Hampton Court Gardens and Part II consists of a detailed guided tour around the gardens and parkland of Bushy. In conclusion the author surveys the natural history of the parks.

This is a superbly produced and extremely well illustrated little book. A joy to handle. Peter Forster of the information Directorate, Department of the Environment, is to be congratulated on the book design.

L.S.S.

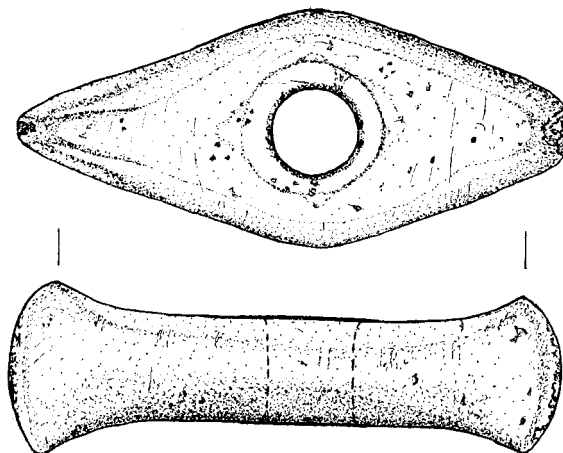
AN EARLY BRONZE AGE BATTLE-AXE FROM WANDSWORTH

PATRICK LOOBEY

During its continuing watch along the Thames foreshore at low tide Wandsworth Historical Society has made a further number of discoveries,¹ including an Early Bronze Age battle-axe which was found in the Wandsworth reach.²

The axe is 144 mm long and 64 mm wide with a shafthole diameter of 22 mm. Its surface has been smoothed almost to a polish, but both the blade and the butt have been slightly damaged with use. Thin sectioning has revealed that the axe is of camptonite (Group XIV; sources West Midlands).³

The axe does not fit easily into any of Roe's nine groups:⁴ the butt shape is intermediate between A and D suggesting the Calais Wold/Snowhill Groups; leaving this basic characteristic aside, the softly carinated sides, the long thin elevation and the longitudinal proportions would place the axe in the Loose Howe Group,⁵ of which two other examples have been discovered in the London region.⁶



Scale 1/2

ACKNOWLEDGEMENTS

I wish to thank Stan Warren for encouragement and for drawing the axe, Nicholas Farrant for my writing this description at all, Marion Smith and Mrs. Baker at Kingston Museum for help and advice. I must also thank Dr. A. C. Bishop and Dr. A. R. Woolley of the Department of Mineralogy, British Museum (Natural History) for the thin sectioning, and Dr. I. A. Kinnes of the British Museum for his help.

NOTES

¹ For two earlier finds see N. Farrant, "Two Weapons from the Thames", *Trans. London Middlesex Archaeol. Soc.* 24 (1973) 157-58.

² Full details of the find spot have been placed with the Museum of London.

³ F. W. Shotton, "New Petrological Groups based on Axes from the West Midlands", *Proc. Prehist. Soc.* 25 (1959) 135-143. Also for Group XIV see *Proc. Prehist. Soc.* 28

(1962) 220. For preliminary details of the petrological survey of the London region, see F. Celoria, "Preliminary list of neolithic axes from London region. . .", *London Studies I* (1974) 87-92.

⁴ F. E. S. Roe, "The Battle-Axe Series in Britain", *Proc. Prehist. Soc.* 32 (1966) 199-245.

⁵ *Ibid.* p. 209, fig. 6b, no. 251.

⁶ *Ibid.*, from the river at Kingston-upon-Thames, p. 237.

A MARBLE STATUETTE FROM CANNON STREET, LONDON

MARTIN HENIG, M.A., D. PHIL.

The Catalogue of Antiquities in the Nicholson Museum, Sydney includes an item described as "a very fine Torso (probably that of Diana) found in Cannon Street, London".¹ Professor Alexander Cambitoglou has very kindly supplied a photograph of the piece, which is part of a marble statuette of high quality.² Like the well known sculptures from the London mithraeum, it is presumably an import.

Although only the body, upper arms and base of the neck remain, they are sufficient to identify the figure as a young woman wearing a chiton. The garment is hitched over her left shoulder, leaving the right breast and arm exposed. The quiver-strap suspended from her right shoulder confirms that she is a huntress or a warrior; while the tight binding of the top of the himation or mantle, around her waist (just above the point where the lower part of the statuette is broken away) further suggests some active pursuit.

The right arm would seem to be inclined downwards and the left arm rests against a vertical object, almost certainly a spear. It was evidently beyond the skill of the sculptor to remove the surplus stone between body and spear on this side.

It is tempting to see in the figure a reflection of Phidias's Amazon which stood with similar statues by Polykleitos and others in the temple of Artemis at Ephesos.³ Of course, such a statue could well have been adapted in Graeco-Roman times to serve as a type of Artemis-Diana herself,⁴ and in this connexion it may be noted that Diana is attested in London by an altar from Goldsmiths' Hall and by a red jasper intaglio from Moorgate Street.⁵ A third, and admittedly less likely possibility is that the marble represents the Arcadian heroine Atalanta who slew the Calydonian Boar.⁶

Despite the rather vague description of the findspot and lack of indication of when the piece was found, it is very likely that it came from the vast Governor's Palace which is now known to lie in the Cannon Street area. Such a building, it may be supposed, would have been furnished with a choice collection of sculpture and other works of art.⁷

NOTES

¹ E. Reeve, *Catalogue of the Museum of Antiquities of the Sydney University*, (Sydney 1870) 96 No. 1209.

² Present height 106 mm; Width 129 mm. The crisp and careful cutting suggest to me a date no later than the middle of the second century A.D.

³ D. von Bothmer, *Amazons in Greek Art* (Oxford 1957) 216-222 pl. lxxxix. He cites Pliny, *N. H.* XXXIV, 53 and Lucian, *Imagines* 4 and 6.

⁴ For marble statuary showing Diana, found in the North-Western provinces of the Empire, none of it iconographically identical with this statuette, cf E. Espérandieu, *Recueil Général des Bas-Reliefs de la Gaule Romaine*, (Paris 1907) Nos. 929 (Chiragan); 1324 (Saintes); 7739 (Trier, Altbachtal); 5107 (Bertrich near Trier). *B. M. Guide to Roman Britain* (1958 edn.) 55 and pl. xx No. 11 (Woodchester).

⁵ R. Merrifield, *The Roman City of London* (London 1965) 200 and pl. lxxxvi. M. Henig, *A Corpus of Roman Engraved Gemstones from British Sites*, *BAR* 8 (ii) (Oxford 1974) 38 and pl. viii No. 252.

⁶ M. Bieber, *The Sculpture of the Hellenistic Age*, revised edn. (New York 1961) 24 Fig. 58. Also cf M. L. Krüger, *Die Rundskulpturen des Stadtgebietes von Carnuntum* (Vienna 1967) 19 No. 36 which also appears to show Atalanta.

⁷ There are of course other possibilities. Mr. Hugh Chapman points out to me that a temple of the imperial cult (attested by *R.I.B.* 5 from Nicholas Lane) as well as the Walbrook Mithraeum, lie in the vicinity of Cannon Street.



Marble statuette from Cannon Street (Height 106 mm, Width 129 mm) (By courtesy of the Department of Archaeology, University of Sydney.)

DEPARTMENT OF URBAN ARCHAEOLOGY MUSEUM OF LONDON

CHIEF URBAN ARCHAEOLOGIST: BRIAN HOBLEY

PROBLEMS AND POSSIBLE CONCLUSIONS RELATED
TO THE HISTORY AND ARCHAEOLOGY OF THE
THAMES IN THE LONDON REGION

G. H. WILLCOX

INTRODUCTION

In the first century A.D. the level of the Thames in the City was perhaps as much as 4 m. below its present high tidal level¹ and because the probable mean sea-level in the Thames estuary was below this level,² it is unlikely that the London Thames (to mean the Thames in the region of the City) was appreciably affected by tides. A continuous rise in sea-level since the Pleistocene period in relation to the land has radically altered the whole regime of the lower Thames. Thus settlement in the area has had to adapt to these changes and it is clear that the recent concern which has led to the raising of the embankments is a repetition of what went on in the past. However, an understanding of the history of the London Thames can only be based on fragmentary evidence, making it all too easy to make misleading statements based on assumptions and insubstantial data. This is partly due to the fact that the evidence comes from a wide variety of specialized disciplines and further, the multiple interacting factors acting on the river constitute a very complex and constantly varying system. It would, therefore, seem useful to outline these factors, followed by a discussion of the evidence and problems of interpretation.

PRINCIPLES AND PROBLEMS

There have been nine basic variable factors acting upon the Thames, causing it to undergo various changes. (1) Post-glacial eustatic rise in sea-level. During the last glaciation considerable amounts of water were locked in the form of ice sheets, causing a universal lowering of the sea-level. As the ice melted, the sea-level began to rise. This universal rise in sea-level began to peter out *c.* 4,000 years ago.³ (2) Isostatic readjustment of the land is also connected with the last glaciation when huge amounts of ice in the north of Britain depressed the surface causing uplift in the south. Disappearance of the ice has thus resulted in a lowering of the land surface in southern Britain. (3) Tectonic movements associated with the London Basin syncline may have caused depression of the land surface. (4) Subsidence and compaction of deposits, no doubt, exerted a considerable influence.⁴ Erosion, both, (5) down-cutting and (6) lateral movement of the river channel, combined with, (7) deposition, are ever present factors which affect, (8) changes in tidal regime, as do (9) flood prevention schemes, dredging and bridge building.⁵ To this one must add the influences of changes in climate, inland ecology and drainage.

These factors are interacting and interdependent, producing a complex variable system acting upon and changing the volume, rate of flow, the meander system, depth and width, salinity, tidal regime, including position of the head and amplitude. The overwhelming influence on the river has been the relative rise in sea-level in relation to the land, resulting from subsidence and/or a universal rise in sea-level—this process appears greater in London than elsewhere in Southern Britain.⁶

To come to conclusions on these changes one needs accurately dated deposits related to O.D. (Ordnance Datum Newlyn), because the actual relationship between exposures is often lost and, further, their areal distribution is usually limited. Complications also arise because it is difficult to distinguish between material which is derived and that which represents the actual conditions of deposition.

PRE-ROMAN RIVER

During the latter part of the Pleistocene the Thames underwent a number of changes resulting from large scale variation of sea-levels and climate. These changes are manifest in three main gravel terraces,⁷ the Boyn Hill Terrace, the Taplow Terrace on which the City is partly sited and where it is capped by brickearth, and the Flood Plain Terrace, less than a metre above O.D. The latter is the most recent and extensive. It is represented, for example, by the gravels at Westminster and Southwark. A full understanding of these complex series of gravels is complicated by an apparent series of buried channels.⁸ The low sea-level known to have existed at the end of the last glaciation must have led to deep erosion of the channel, but by the beginning of the Holocene, eustatic raising of the sea-level began to flood the Thames estuary from the east, causing deposition of silts, forming a wedge which becomes progressively thinner to the west, where only later deposits are present. This marine transgression is interrupted by three recessions indicated by peat layers,⁹ the most recent at just below O.D., is the only one to stretch as far as the City. It is dated by a number of radiocarbon dates to the Iron Age and Roman periods and was seen in sections exposed at New Palace Yard, Westminster, Mark Brown's Wharf and Courage Breweries¹⁰ (see Fig. 1), but should not be confused with highly organic deposits so commonly encountered on sites in the City, for the majority is of cultural origin. However, for the immediate pre-Roman period there

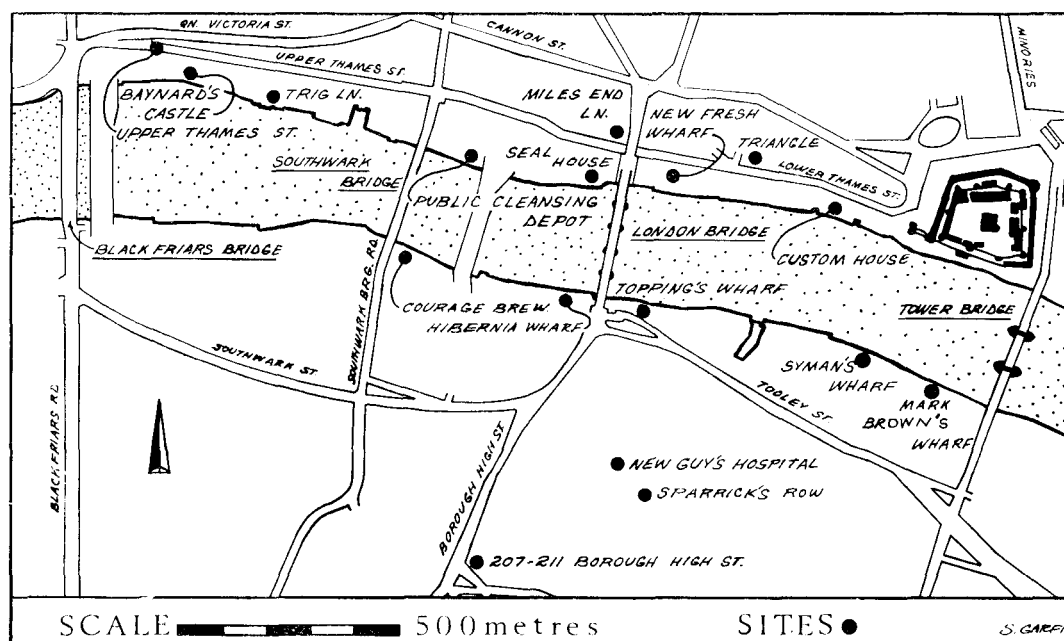


Fig. 1. The Thames in the London Region. Site location map

are virtually no suitable sites so far excavated which provide *in situ* indications of occupation at a suitable elevation along the Thames, possibly because of erosion or burial by more recent deposits. Numerous finds of Iron Age pottery from Brentford to Tilbury offer little in the way of concrete data.

Given the low sea-level, the London Thames must have looked very different from today. Woodley¹¹ suggests that if the Thames was tideless and a "free flowing river, disregarding dry weather of summer and only considering the average winter flow . . . , the channel would be 200 feet wide with an average depth of 4 feet". Reasonable estimates of the size of the hypothetical pre-Roman river are difficult to make. In the past, many authors have suggested that the river was wider in Roman times, but given the decreased volume of saline water and the decreased damming effect of a low sea-level, we can conclude that the channel was considerably smaller before it was flooded by the sea. The present river is c. 900 feet wide, with an average depth of 30 feet at high tide at London Bridge.

One can infer that between the end of the last glaciation and the Roman period, the Thames around London would have been a fairly fast running, tideless river, continually cutting into its banks and changing its course, forming sand and gravel banks. This is particularly evident at Southwark, where a complex series of sands and gravels underlie Iron Age material in some areas, while in other lower regions material is covered by the later silt and peat strata associated with the progressive flooding of the estuary from the east.

Other silts and sands in the immediate Southwark region have been found to cover Iron Age material between 0.5 m. and 1.3 m. O.D. at sites such as 106 Borough High Street and Toppings Wharf. In the light of other evidence these deposits would appear to have been laid down during exceptional floods when the river burst its banks. This would require the flood waters to raise the level of the Thames by at least 1.5 m. which, with a more restricted channel, is by no means unlikely.

ROMAN PERIOD

Roman material has been found at approximately O.D. at Brentford,¹² Southwark,¹³ Tilbury¹⁴ and the North Kent Marshes,¹⁵ which indicates that the river was below this level. Evidence from Roman waterfronts in the City (see Fig. 2) corroborates these data, showing the level of the Thames was 4–4.5 m. below the present Trinity High Water Mark, which agrees with estimates made by Akeroyd, as well as estimated average rates of subsidence and/or sea-level rise made by d'Olier for the last 9,000 years. However, changes in tidal regime suggested by Bowen¹⁶ and Longfield's¹⁷ data from comparison of levellings, demonstrate the difficulty of determining mean levels even with modern, relatively precise data.

Needless to say, one can make some suggestions, for example, since the land in London was higher in relation to the mean sea-level (the recently excavated waterfronts are over 4.0 m. below the present high tide level, though they may only represent subsidence of 3.0 m. if one takes into account changes in tidal regime) it would have been less affected by tides. Indeed, Akeroyd and Spurrell¹⁸ suggest that the tidal head may have been as far east as Dagenham and Crossness. Analysis of organic remains from various localities indicate that fresh water conditions prevailed east of the City, though this does not preclude a tidal river. Information from the Thames Water Authority shows that today freshwater conditions can stretch as far as Woolwich after a rainy period, while after a dry period saline conditions may reach as far as Barnes. Since the channel may have been relatively deep due to erosion

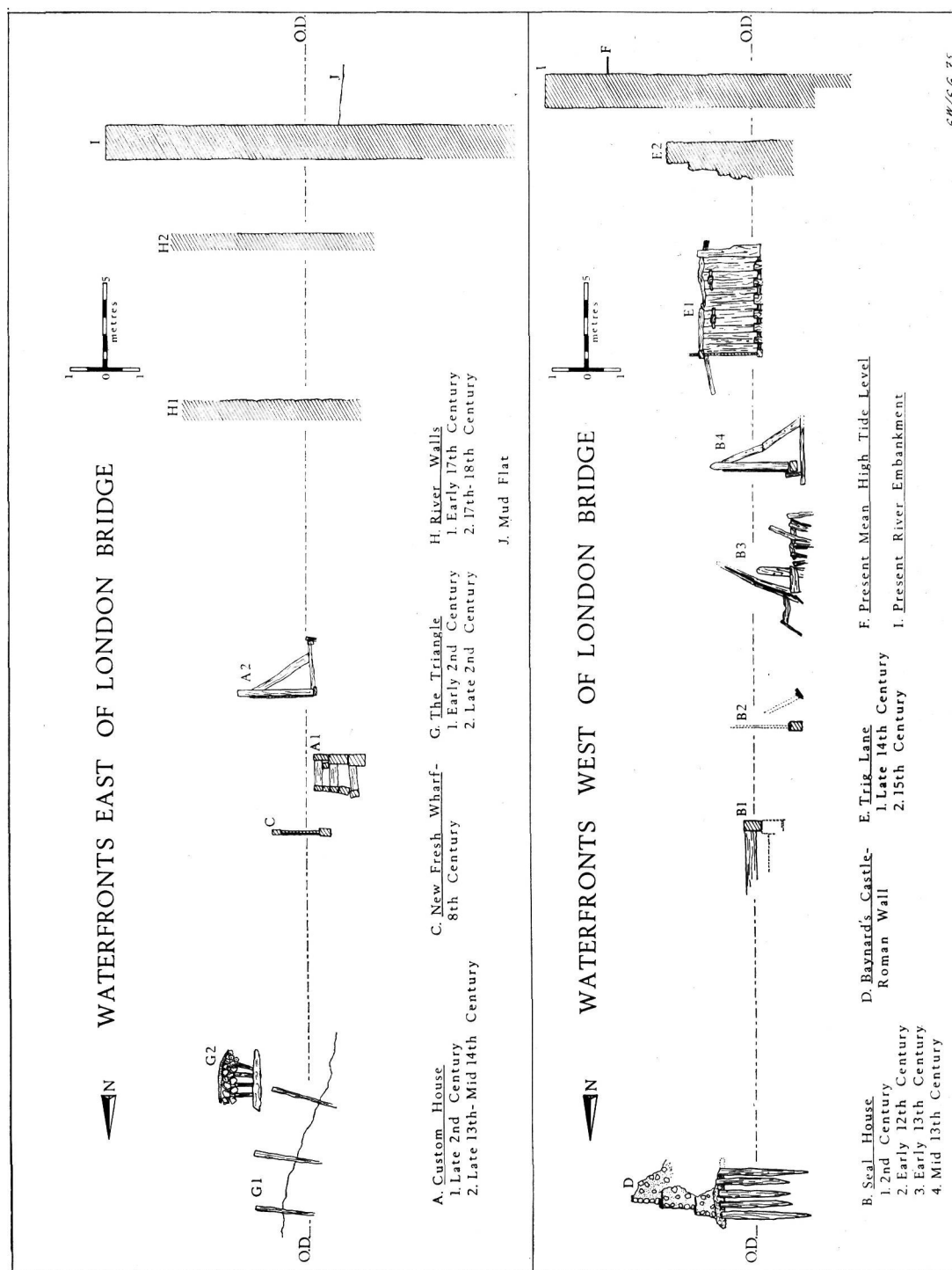


Fig. 2. The Thames in the London Region. Sections showing ancient waterfronts as revealed by archaeology in relation to ordnance datum, mean high tide and the modern embankment. The structures have been artificially aligned on a north-south axis

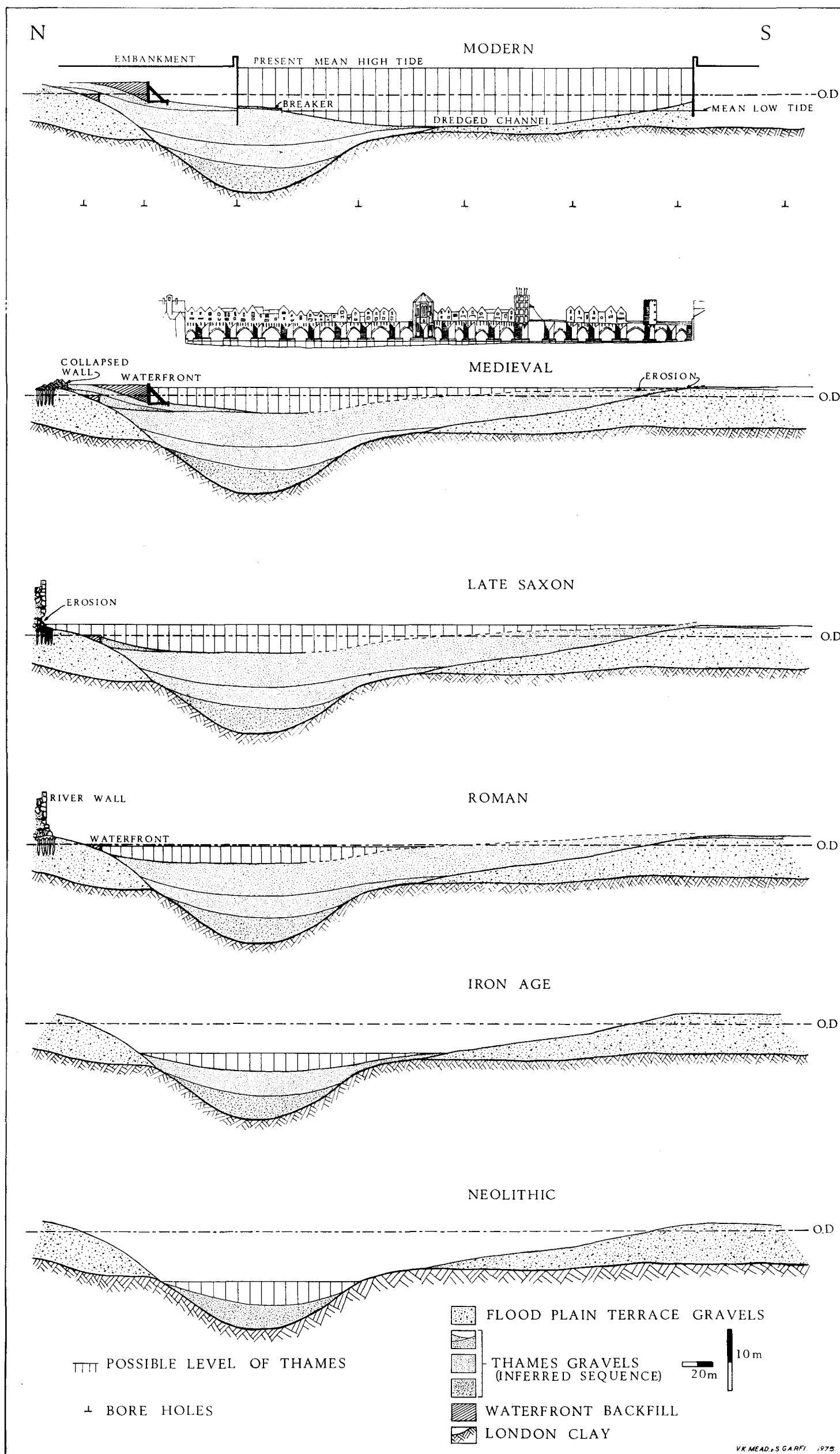


Fig. 3. The Thames in the London Region. The tentative reconstruction of sections across the Thames at London Bridge, based on data from boreholes, archaeology and past sea-levels. The sections of river gravels and the base of the channels are hypothetical (medieval bridge not to scale)

during the low sea-level, it is plausible that the London Thames was marginally affected by tides, but obviously the position of the tidal head is extremely variable depending on factors mentioned in the first section and, added to these, one can include the effects of spring tides and meteorological conditions. At present our data is too insubstantial to state the position of the tidal head even within broad limits.

Roman waterfronts at Custom House, New Fresh Wharf and Seal House (see Figs. 1 and 2) suggest that the north bank of the channel lay in a more northerly position, implying that the south bank (assuming a narrower channel) would have been well out into the present river and may have subsequently been eroded away. Further evidence from recent boreholes beneath London Bridge¹⁹ shows a greater thickness of deposits towards the north bank, implying that the channel has migrated in a southerly direction at this point (see Fig. 3). Further downstream at Custom House the earlier Roman waterfront was set further back than the later one. At the former there is some evidence of erosion and it is likely that the river was susceptible to flooding by storm waters (which is not the case today) and this possibly explains the revetments found at Miles Lane,²⁰ the Walbrook²¹ and those recently discovered at Triangle (see Fig. 1) which were constructed on the unstable banks to prevent erosion. We do not know the exact width of the river in Roman times, but since the channel must have been only marginally affected by the sea, the volume of water in the channel must have been considerably less than at present. Though the river appears to have been much smaller, it was ample for navigation by large Roman craft which have been found at several sites.²²

POST-ROMAN PERIOD

Between the fourth and eleventh centuries A.D. there is a dearth of archaeological evidence related to the Thames. Material of this period is almost entirely absent at Custom House. At the recently excavated site near Billingsgate (New Fresh Wharf, report forthcoming, see Fig. 1), a waterfront of stone and timber, dated to the eighth century, was found above a Roman quay which was at O.D. It is clear from evidence at New Fresh Wharf and later medieval sites that subsidence and/or an increase in the mean sea-level brought about a rise in the level of the river causing it to become increasingly affected by tides, so increasing its volume and width to such an extent that the Roman waterfronts went out of use (see Fig. 3). Thus the Saxon waterfronts, where they exist, may be located above and further to the north of those of Roman date.²³ It seems plausible that as the level of the river rose it reached a maximum width at the beginning of the medieval period causing the erosion noted at Custom House,²⁴ Toppings Wharf,²⁵ Hibernia Wharf,²⁶ Upper Thames Street²⁷ and at the Public Cleansing Depot²⁸, and following this period it became artificially constricted by the construction of quays, wharves and embankments. During the twelfth century documentary evidence²⁹ from Fitz Stephen's *Descriptio Londoniae* tells us that, "On the South, London was once walled and towered . . . but the Thames that mighty river teaming with fish . . . has in the course of time washed away those bulwarks, undermined and cast them down". This reference corroborates our earlier hypothesis and is further substantiated by archaeological excavation beneath Upper Thames Street where Millett and Hill³⁰ both found the eroded wall, the base of which was between 1.1 m. and 1.4 m. O.D., implying that the mean high tide was at least at that height when the erosion occurred.

Insufficient evidence precludes any interpretation of the nature of the tides for the medieval period, though we know that by the eleventh century navigation on the London Thames was affected by tides,³¹ and at about this time too according to Evans³² the first innings were constructed on the north Kent marshes when land at a similar elevation became subject to flooding. Construction of innings, river walls and embankments during the medieval period may have increased the tidal amplitude by reducing the volume to be filled by the incoming tide,³³ so necessitating further heightening of embankments.

By plotting the maximum height of all the known waterfronts against time of construction, a positive, continuous rise in the level of the Thames is indicated (see Fig. 4). However, these data should not be taken as an accurate measurement, for one cannot rule out factors such as differential subsidence, or that the highest point (which could be missing) represents the mean high tide level. Looked at in broad terms it does give us parameters in relation to O.D. to tie in with other areas where waterfronts are absent. At a number of sites deposition of silts provides evidence. For example, in Southwark, east of London Bridge, unconsolidated silts overlie a peat layer at Mark Brown's Wharf up to a height of *c.* 2.5 m. O.D. which in turn lies beneath late and post-medieval archaeological deposits.³⁴ Similar silts were noted at building sites at Symons Wharf, Courage Breweries, Sparricks Row,³⁵ and Guy's House.³⁶

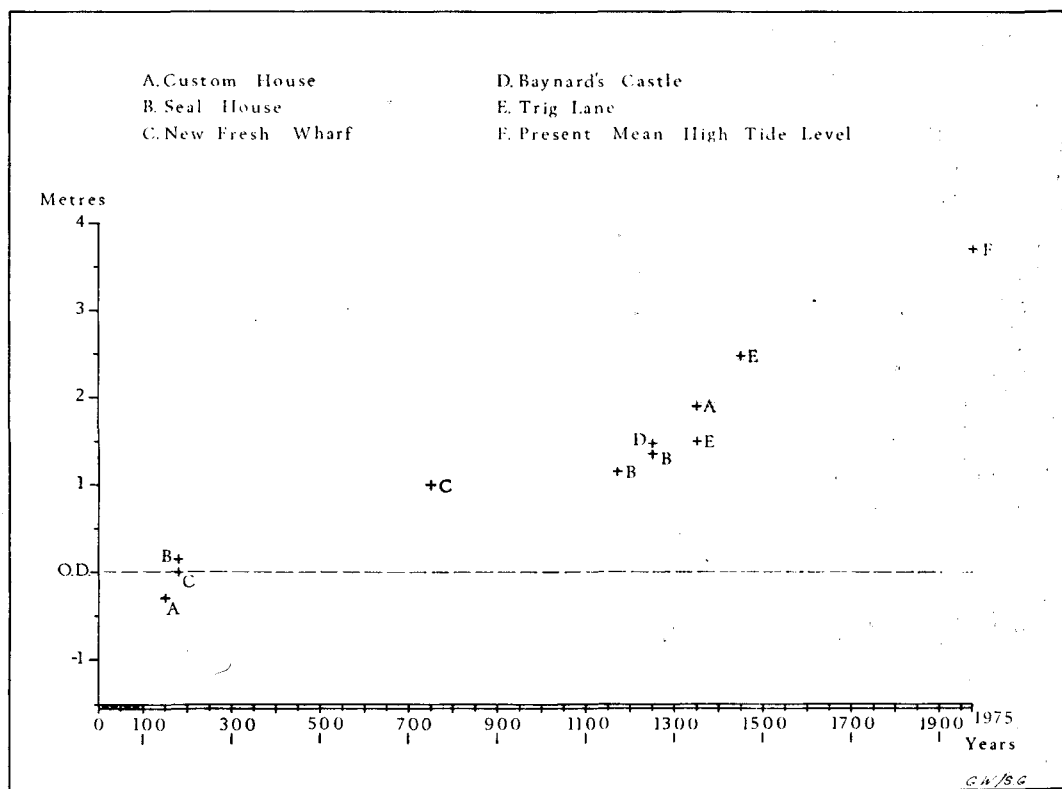


Fig. 4. The Thames in the London Region. Graph showing relationship between maximum known height of the waterfronts on the north bank of the Thames in the City against time of construction. (Since going to press Mr. John Schofield informs me that the eighth century level from New Fresh Wharf is inaccurate and should be disregarded.)

On the north bank river silts were found with Pingsdorf ware of the twelfth century overlaying gravels with Roman material at the site of the Public Cleansing Depot. These post-Roman silts were, no doubt, laid down at high tide level in the same manner as deposition occurs in saltings today and are associated with the continued progressive flooding of the estuary. Seen in relation to Fig. 4 they are corroborative of a positive continuous rise in sea-level. The distribution of silts in Southwark indicates that the pattern of embankment in the area was not as it is now. Indeed, there would appear to have been an area to the east and possibly the west which was flooded at high tide. The Roman boat found at Guy's House³⁷ suggests that this area was navigable prior to the deposition of the bulk of the silts and even as late as the eleventh century, there is historical documentation of Cnut cutting a channel and dragging his ships around the south of Southwark.³⁸ Possibly a pre-existing but partially silted channel was utilized. An absence of silts in the immediate bridgehead area suggests that some form of embankment must have been present unless differential subsidence has occurred, so that it might be possible to predict where the embankment lay by plotting the distribution of silts. The silts themselves are much finer than those laid down during the Roman period so one can conclude that the river was slower moving. If areas were still not embanked as it would appear, then the force of the tides would be less than at present. In summary, during the medieval period the London River was wider, shallower, with less of a tidal amplitude than it has today.

The construction of the medieval London Bridge in the twelfth century had a considerable effect on the tidal regime. According to Home³⁹ the starlings and later waterworks constricted the width of flow to one sixth, thus creating a weir which at low tide caused the water downstream to be three to five feet lower than that upstream of the bridge. It is not surprising, therefore, that there are numerous reports of repairs being carried out on the starlings and in some cases even the arches collapsing. The force of water was a hazard to navigation. When the bridge was demolished in 1832 erosion was so severe that it seriously threatened the foundations of Mylne's neighbouring bridge at blackfriars and of Old Westminster Bridge.⁴⁰

Since the medieval period artificial structures increasingly affected the London Thames. It progressively became more restricted by the gradual encroachment by wharves, buildings and embankments, which arrested its natural evolution. The encroachment of embankments can be seen on an accurate 1":100' plan from London Bridge to Cuckold's Point drawn by Greenvil Collins in 1684 which is now in the Guildhall Library.

The most dominant change in the river since the medieval period has been not in plan but in depth of the channel (see Fig. 3) and tidal regime—hence the numerous records of floods right up to the present time. This would appear to result from (a) continued subsidence of the land and (b) an increased tidal amplitude resulting from encroachments which reduce the volume, and more recently the effects of dredging. Heightening of the embankments has continued right up to the present day, and the risk of serious flooding is as much a danger today as it was in the past.

ACKNOWLEDGEMENTS

I wish to thank Harvey Sheldon of Southwark Archaeological Excavation Committee who provided unpublished information, together with Tim Tatton-Brown, Joan Sheldon and members of the Department of Urban Archaeology of the Museum of London for their sound advice and valuable criticism.

NOTES

- ¹ T. Tatton-Brown, 'Excavations at the Custom House', *Trans. London Middlesex Archaeol. Soc.* 25 (1974) 117-219.
- ² A. Akeroyd, 'Archaeological and Historical Evidence for Subsidence in Southern Britain', *Phil. Trans. Roy. Soc. Lond.* 272 (1972) 151-169.
- ³ *Ibid.*
- ⁴ B. d'Olier, 'Subsidence and sea-level rise in the Thames Estuary', *Phil. Trans. Roy. Soc. Lond.* 272 (1972) 121-131.
- ⁵ A. J. Bowen, 'The tidal regime of the River Thames; long-term trends and possible causes', *Phil. Trans. Roy. Soc. Lond.* 272 (1972) 187-201.
- ⁶ A. Akeroyd, *op. cit.*
- ⁷ R. L. Sherlock, *London and the Thames Valley* (1960) Institute of Geological Science, H.M.S.O.
- ⁸ A more detailed description is given by K. Oakley and W. King, 'The Pleistocene Succession in the lower part of the Thames Valley', *Proc. Prehist. Soc.* (1936) 52-76, and F. Zeuner, *The Pleistocene Period* (1959) 168-169.
- ⁹ F. Spurrel, 'Early Sites and Embankments on the Margins of the Thames Estuary', *Archaeol. J.* 42 (1885) 269-302.
- ¹⁰ Southwark Archaeological Excavation Committee, unpublished Interim Reports.
- ¹¹ G. M. Woodley, 'The London Thames and changing levels of the land and sea', *London Naturalist* 40 (1960) 115-121.
- ¹² R. E. M. Wheeler, 'Old England Brentford', *Antiquity* 3 (1929) 20.
- ¹³ J. Plouviez, 'Roman Southwark', *London Archaeologist* 2, no. 5 (1972) 106-113.
- ¹⁴ Royal Commission on Historic Monuments (1928) Essex (S.E.)
- ¹⁵ J. H. Evans, 'Archaeological Horizons in the North Kent Marshes', *Archaeol. Cantiana* 66 (1953) 103.
- ¹⁶ A. J. Bowen, *op. cit.*
- ¹⁷ T. Longfield, 'Subsidence of London', Ordnance Survey, Prof. Pap (N.S.) No. 14 (1932).
- ¹⁸ F. Spurrel, 'On the Estuary of the Thames and its Alluvium', *Proc. Geol. Ass.* 2 (1889) 210-230.
- ¹⁹ Messrs. Mot, Hay and Anderson. Borehole Log (1964).
- ²⁰ F. Lambert, 'Some Recent Excavation in London', *Archaeologia* 71 (1920) 55-112.
- ²¹ W. F. Grimes, *The Excavation of Roman and Mediaeval London* (1968) 93.
- ²² P. Marsden, 'A Boat of the Roman Period', *Trans. London. Middlesex Archaeol. Soc.* 21 (part 2) (1965) 118-131. See also his undated Guildhall Museum publication, *A Roman Ship from Blackfriars, London*.
- ²³ T. Tatton-Brown, *op. cit.*
- ²⁴ *Ibid.*
- ²⁵ H. Sheldon, 'Excavations at Toppings Wharf', *London Archaeologist* 1, no. II (1971) 252-254.
- ²⁶ 'Southwark Archaeological Excavation Committee, 'Excavation at New Hibernia Wharf', *London Archaeologist* 2, No. 5 (1973) 99-103.
- ²⁷ M. Millett, 'A trench across Upper Thames Street', *London Archaeologist* 2, No. 9 (1974) 232-233.
- ²⁸ R. Merrifield, *The Roman City of London* (1965) Gazetteer No. 262.
- ²⁹ F. M. Stenton, *Norman London, an Essay* (1934) 27.
- ³⁰ C. Hill, *London Archaeologist* 2, No. 10 (1975).
- ³¹ M. Honeybourne, 'The pre-Norman London Bridge', in *Studies in London History*, eds. A. E. J. Hollaender and W. Kellaway (1969) 19.
- ³² J. H. Evans, *op. cit.*
- ³³ A. J. Bowen, *op. cit.*
- ³⁴ Southwark Archaeological Excavation Committee, unpublished interim report.
- ³⁵ *Ibid.*
- ³⁶ P. Marsden, *op. cit.*
- ³⁷ *Ibid.*
- ³⁸ M. Honeybourne, *op. cit.*
- ³⁹ G. Home, *Old London Bridge* (1931) 36.
- ⁴⁰ J. B. Redman, *Proc. Inst. Civ. Eng.* 49 (1877) 67.

Both the Editors and the Society are extremely grateful to the Museum of London for financial assistance towards the cost of publishing this paper.

MID-GEORGIAN NURSERIES OF THE LONDON REGION

JOHN H. HARVEY

SUMMARY

In an earlier paper¹ an attempt was made to identify the nurseries marked by Thomas Milne on his land-use map of London, surveyed in 1795–99, and to complete the list of London nurseries in 1800. The present article supplements this with corrections and additions, carrying the coverage to a wider area and for the period 1750–1800.

Plant nurseries within the area of Greater London can be identified as far back as the sixteenth century but they were few in number until towards 1700. By the middle of the nineteenth century there were so many as to defy any but encyclopaedic treatment. The days of the significant nursery were, however, numbered in spite of the late survival of a few distinguished firms.

The real heyday of the nursery as a major factor in social life lasted for some two generations, from about 1760 at the accession of George III to that of Victoria in 1837, or the death of John Claudius Loudon in 1843. Within that period the introduction and culture of exotic plants remained the preserve of men and women of wealth and title. Fortunes were to be made — and lost — by those gardeners in trade who had the knowledge and capital to take part in a game patronized by royalty and by Sir Joseph Banks.

The first truly scientific age had set in, when real knowledge was taking the place of wild guesses and science began to assume a systematic form. In horticulture 1768 marks a turning-point: Philip Miller adopted the Linnean system in the eighth edition of his *Gardener's Dictionary*, first published in 1731 but preceded by his *Gardener's and Florist's Dictionary* of 1724. The adoption of binomial nomenclature was also marked by the publication, in 1770–72, of the first three volumes of Richard Weston's *The Universal Botanist and Nurseryman* and by several trade catalogues. The earliest of these seems to have been issued by William Malcolm of Kennington in 1771 and, in an improved and enlarged edition, in 1778. Meanwhile other 'scientific' trade lists had been brought out by Lewis Kennedy and James Lee of Hammersmith in 1774, by John Brunton of Birmingham in 1777, and by Conrad Loddiges of Hackney (with German as well as Latin and English) in the same year.²

Not much later two other developments cast a fresh light on the horticultural scene. The first was the publication of adequate directories of London and the country generally, listing nurserymen as a distinct trade. This was accomplished by Bailey's Directories issued in 1781–84, and in greater detail by the *Universal British Directory* of 1791–98. The other great advance was the appearance of the first regular periodical devoted to garden plants, William Curtis's *Botanical Magazine*, issued in parts from the beginning of 1787. At this very time there had just been published John Abercrombie's *The Gardener's Daily Assistant*, with a preface dated 18 September 1786. This contains lists of Nursery Gardens, and of Seedsmen, in and near London. The nurserymen amount to 58 firms, mostly within the area covered by Milne's map, but including also some businesses further afield at Barnet, Herts., and Bromley, Kent. Few known nurseries of importance were omitted by Abercrombie and it is evident that he had a precise knowledge of the trade.

There were, however, some nurseries of standing outside the scope of Abercrombie's list, yet of metropolitan rather than provincial character. Such were those founded by James Colvill in Chelsea in 1783 and by John Cree at Addlestone about 1765. Two others, perhaps omitted by Abercrombie because they were florists rather than general nurserymen, were the gardens of Thomas Davey at Camberwell and of James Maddock, founded c. 1770 at Walworth. A few major nurseries had already gone out of business: those of Richard Woods at Chertsey, of Henry Woodman at Strand-on-the-Green, of Henry Scott at Weybridge. Several, destined to early fame, were soon to begin: James Buchanan at Camberwell, John Fraser at Chelsea, Thomas Barr at Kingsland, and Andrew Henderson at the Pine Apple in Edgware Road. The others here added to the list of 1786 were mostly of minor standing.

In the *Gazeteer* which follows the nurseries are numbered serially, 1–113., and those which appear also in the study of Milne's map have that numbering added in brackets thus: 35. (16) represents the establishment of Loddiges at Hackney.

GAZETEER

Addlestone – see **CHERTSEY**

BARNET (Hertfordshire and Middlesex)

It is impossible to distinguish between Chipping Barnet and East Barnet, Herts., and Friern Barnet, Hadley, and South Mimms, all formerly in Middlesex.

1. Henry Clark (died 1782/83) – sale after his death on 20 and 21 February 1783.³

2. Freehold in South Mimms: the main nursery was S.W. of Hadley Green. $6\frac{1}{2}$ acres. Isaac Emmerton senior, from c. 1760 and until his death on 13 March 1789 aged 53 (buried at Monken Hadley); the nursery was listed as 'Emmerson' in 1786. The property was left to his widow Rebecca (d. 1813) and passed to their son Isaac Emmerton junior (c. 1769–1823), in business as a nurseryman at Barnet by 1793 and until 1815 or later. He published in 1815 *A Plain and Practical Treatise on the Culture and Management of the Auricula* which went into a second edition in 1819. Before Emmerton's death in 1823 the land was let to James Jackson and by 1842 it was occupied by William Cutbush, who had succeeded to the Highgate Nursery (92.). William Cutbush & Sons held both nurseries until 1918, when they moved altogether to Barnet.⁴

BETHNAL GREEN (Middlesex)

3. (1) The nursery of John Allport in Shoreditch (below, 93.) may have included this area; it was certainly not Duthies' nursery (4.).

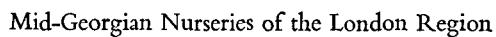
4. Dog Row, Cambridge Road (E. side): S. end of Bethnal Green Gardens, and part railway. 5 acres.

Abercrombie in 1786 listed Duthie, Bethnal Green, but by 1783 'Duthea' had been assessed for an area of Poor's Land owned by Thomas Ruby in Dog Row East, where William and Alexander Duthie were paying Land Tax in 1786–91. The garden ground continued as Duthie's Nursery until 1824, though it is shown as market garden by Milne.⁵

Brentford – see **ISLEWORTH**

BROMLEY (Kent)

5. Behind (E. of) Bromley College, to College Road and College Slip. 2 acres. In 1768 Godfrey Stidolph (1734–1818) took a lease at £5. 10s. yearly for 38 years of a house and land which had by a previous tenant (?: Robert End; in 1767 Mary Ansdell) been converted into a nursery of forest and fruit trees. It was listed in 1786 and carried on after 1818 by



Stidolph's sons Godfrey Stidolph (1760–1848), John Stidolph, and William Stidolph (1772–1855) successively, and by other members of the family. The horse chestnut trees planted in Bromley churchyard in 1793 were supplied by the firm. Bromley College trustees in 1830 bought the freehold to protect the area from building, with the result that the nursery has survived to the present day, having been taken over from the last William Stidolph in 1892 by James R. Pocock, and later by Stevens. The Stidolph family also occupied 6 acres of nursery ground near Bromley Workhouse rented from the trustees of St. Mary Aldermary, London.⁶

Brompton – see KENSINGTON

CAMBERWELL (Surrey)

6. (2) Neale's nursery was listed in 1786 as 'near the Green Man turnpike, Kent-road'.

7. The original Camberwell nursery of Thomas Davey (c. 1758–1833) is not mentioned by Abercrombie, perhaps because it specialized in Florists' Flowers only. Davey's father was said to have been an eminent florist before him, 'and lived to be upwards of ninety years of age'; he stated that 'the florists' feasts and meetings were at their greatest height about London between 1740 and 1770'.⁷

8. (4.A) *The Camberwell Nursery*. James Buchanan, etc., 1795–1849.

CHELSEA (Middlesex)

9. (7) James Colvill's nursery, 1783–1840.

10. (8) Davey's nursery (see above, 7.), 1798–1833. After Thomas Davey's death the property was occupied by Mrs. Tervin, perhaps of the Terwin family, nurserymen at the Neat Houses, and in 1805 of 11 Upper Belgrave Place, Pimlico.⁸

11. (9) Anthony and James Shailer (see 60.) may have occupied some land in Chelsea parish from c. 1780, and James Shailer alone from 1784 to 1810.⁹

12. (9.A) Fraser's nursery was continued after the death of John Fraser (1750–1811) by his sons John Fraser junior (fl. 1799–1860) and James Thomas Fraser until 1817, then by the latter alone until 1827 or later, while his brother was running the Hermitage Nursery, Ramsgate, Kent, 1817–35.¹⁰

13. *Ranelagh Nursery*. Hairs, Hairs & Smith, (1789).

14. John 'Robertson', Chelsea, 1793; perhaps identical with the John Robinson rated in 1795–1805 for a garden near Old Church Street.¹¹

15. Kings Road (S. side), Glebe Place (W. side) William Pamplin (1768–1844), son of William Pamplin (d. 1805) of Walthamstow (105.) had a nursery here for many years before his house was pulled down in 1809, when more than 30 new houses were built on the site. He was still a nurseryman in Kings Road in 1822 but then moved to Lavender Hill Nursery, Battersea, where his son William Pamplin (1806–1899) was in partnership with him for some years until 1839.¹²

Chelsea, Little – see KENSINGTON

CHERTSEY (Surrey)

16. Gogmore Lane: copyhold orchard and garden. 35 rods (with other land probably held on lease).

Occupied by Thomas Cussings, gardener, from 1730 until 1751, when he sold his interest to Richard Woods (d. 1793), gardener and nurseryman, later surveyor and landscape designer. Woods had an important nursery here and was able to supply a very wide range of plants by 1758. By 1770 Woods had moved to Essex and he sold this property the following year; it had probably then ceased to be used as a nursery.¹³

Addlestone

17. Crouch Oak Lane. 2½ acres.

John Cree senior (c. 1738–1816), who had worked in the Royal Gardens at Kew, founded a nursery about 1765 and was able to supply uncommon plants for Kew three years later. His first lands may have been leasehold, as it was only in 1779–82 that he was admitted to the copyholds which formed the main part of his later nursery. He was also a county freeholder by 1793 and his own home was a freehold in 1812. During the Napoleonic Wars Cree served as a private in the Chertsey and Thorpe Volunteers from 1803 to 1813, when he was 75! John Cree junior (1800–1858) was only 16 when his father died, but the nursery continued under Ann Cree (d. 1828), the founder's third wife, and later under the younger John until 1838. Important catalogues of plants in the nursery were issued in 1829 and 1837.¹⁴

18. Pond Close Nursery. William Cree (d. 1815), probably a brother of the elder John Cree, was joint tenant with the latter of 4 acres of land rented from Edward Dundas in 1804. In 1788 he had been admitted to a copyhold called Pond Close, and in 1792 was described as a nurseryman, also paying Land Tax as a freeholder.

CHESHUNT (Hertfordshire)

Goffs Oak

19. James Cuthbert in 1797 founded the well known firm which has continued down to our own time.¹⁵ It is not known whether there was any connection with the earlier nursery of Robert Lucas (d. 1734), already in existence before 1725.¹⁶

CHISWICK (Middlesex)

20. (10) Turnham Green Nursery. The nursery was carried on after the death of Richard Williams by Robert Glendenning, who introduced exotics and was a raiser of the hybrid Gloxinia in 1843 by crossing *Sinningia speciosa* var. *rubra* with *S. guttata*. He later turned his attention to trees and was still flourishing in 1858.¹⁷

21. Strand-on-the-Green Nursery. 3½ acres.

The nursery had been founded by about 1700 if not earlier, and was then occupied by Nicholas Parker junior (d. 1726). In 1714 John Lawrence referred to Parker's honesty and long standing in the trade, stating 'that of above Five Hundred Fruit-Trees... I do not remember that I ever heard that one of them miscarried through his Fault or proved otherwise than the kind and sort that was sent for'. The main nursery consisted of 3 acres 2 roods 21 perches; it was left by Parker to his relative William Compton senior, and became part of the ground occupied by Compton's son-in-law Henry Woodman.¹⁸

22. George Masters occupied a small house as a tenant of Compton, but his nursery was a copyhold of a few acres near Kew Bridge.

CLERKENWELL ST. JAMES (Middlesex)

23. Rosebery Avenue (S.E. side), St. John Street (W. side), Lloyd's Row (N. side). 3 acres. James Lane first paid rates here 'for house and gardens' in 1759-60, and continuously until 1796-7. Lane's Nursery is marked on the map by Baker and Wilkinson in 1805. Lane, near Sadlers Wells, is mentioned by Abercrombie in 1786, and the proprietor was described as 'an eccentric'.¹⁹

Dalston – see HACKNEY

DEPTFORD ST. PAUL (Kent)

24. (II.A) In 1786 Adamson was a nurseryman at New Cross, Deptford Road, and may have held the grounds that Crombie & Cormack occupied by 1793.

DORKING (Surrey)

25. Pipp Brook (S. side), near the parish church. 2 acres.

By the spring of 1767 James Clarke, nurseryman of Dorking, was bankrupt and his stock was sold by auction on 22 and 23 April. The printed sale catalogue enables most of his 20,000 plants to be identified. The nursery was probably that later held by Ivery, seen in a painting of c. 1770-85.²⁰ In 1793, John Wood, nurseryman of Dorking, was a county freeholder.

EDGWARE (Middlesex)

26. In 1795 David Greig was listed as a nursery and seedsman, but cannot otherwise be identified unless he was the 'Gregg' of Stepney in 1786 (99.).

EGHAM (Surrey)

27. Spong was a nurseryman at Egham in 1795, and in 1806 'Spon' was growing *Veratrum nigrum* in his nursery there.²¹

ENFIELD (Middlesex)

28. The compilers of the 1795 directory found three nurserymen in Enfield: Patrick Drummond, John Mawdesley, and John Scott, who was also described as the Beadle.

FULHAM (Middlesex)

29. (12) *The Fulham Nursery*. Abercrombie included 'Burchel and co'. in his list of 1786.

30. (13) Rench's Nursery, c. 1660-1865.

31. (14) Dancer's Nursery, c. 1650-1880.

Hammersmith

32. (15) Hammersmith Nursery.

33. (15.A) *The Vineyard Nursery* was occupied by 'Lee and co.' in 1786.

34. The market garden kept in Fulham parish by the Bagley family included a seedsman's shop by 1782, when Bagley & Whitlock were supplying seeds to Sir Gilbert Heathcote, Bart., the bill being receipted by John Whitlock. Four years later 'Whitlock, Fulham' was included in Abercrombie's list. By 1795 William Burchell (29.) was rated for 'late Bagley & Whitlock's land'.²²

Goffs Oak – see CHESHUNT

HACKNEY (Middlesex)

35. (16) Abercrombie in 1786 listed Loddiges as already of Marc-street.

Dalston

36. (18) The nursery was already Smith's and co. when listed in 1786. The associated shop appeared among the seedsmen as Lucar and co., City Road, near Moorfields.

Homerton

37. In 1747 there first appeared as paying Land Tax John Shoebert, who continued for some 40 years holding land of Mr. Tyssen and assessed to church rates. In 1786 Abercrombie listed 'Shuport' of Homerton as a nurseryman. In 1790 and 1791 Joanna Shoebert was rated for the same properties.²³

Kingsland

38. In 1784 Thomas Richards was first assessed to the church rate, paying also 'for land late Scott', as he continued to do until 1802. He also paid Land Tax as an occupier of land owned by Tyssen. In 1786 Richards, Kingsland, near Hackney, was listed as a nurseryman. Mary Richards, presumably widow of Thomas, paid rates in 1805 on the same property and the land late of Scott. This was possibly the large nursery and market garden (Holly Street E. side, Richmond Road S. side, Lansdowne Drive W. side, and approximately Middleton Road N. side) occupied in 1811-24 by James Grange, nursery and seedsman, and marked as Grange's Garden on a map of 1825.²⁴

39. *Caledonian Nursery*. In 1786 Ross was a nurseryman in Newington Road, between Kingsland and Stoke Newington, probably at the small nursery on the E. or Hackney side of the road immediately S. of Farleigh Road. Ross, nurseryman of Stoke Newington, was in 1803-4 raising *Mesembryanthemum inclaudent* from seed and successfully flowering it and other species. From 1811 onwards John Ross is mentioned in Hackney documents until 1837.²⁵ He was stated by Loudon in 1822 to have one of the more important nurseries and by 1825 was described as a designer and landscape gardener, of Caledonian Nursery, Stoke Newington Road.

Ham – see KINGSTON

Hammersmith – see FULHAM

HAMPSTEAD (Middlesex)

40. John Campbell (d. 1804) was rated for a house and garden at Haverstock Hill in 1774, and from 1775 until his death for property in High (now Heath) Street, Hampstead. By 1779 he was also assessed for a 'garden in Church Row and garden late Mr. Saywele'. The nursery was listed in 1786 as Campbell, Hampstead. All the properties were kept on by Campbell's widow, from 1805 to 1820, and thereafter by George Campbell, presumably their son, until 1854. The ground was still called 'Mr. Campbell's Nursery Garden' until 1860, when a Baptist Church was built on the site.²⁶

HAMPTON (Middlesex)

41. George Lowe, who in 1738 was Royal Gardener at Hampton Court Palace, on 3 April 1746 consented to the marriage of his daughter Clara, aged 20, to the architect William Robinson, of St. Martin's in the Fields, aged 25.²⁷ He may have founded the private nursery at 'Kingston' (i.e. Hampton) Wick, near Hampton Court, occupied by one Lowe in 1786.

Hersham – see WALTON

HERTFORD (Hertfordshire)

42. *Hertford Nursery*. In 1795 Charles Bridgeman, nurseryman of Hertford, was a county freeholder. His may have been the Hertford Nursery occupied before 1807 by Robert Murray, still carrying on the business in 1823.²⁸

Highgate – see ST. PANCAS

Homerton – see HACKNEY

Hoxton – see SHOREDITCH

ISLEWORTH (Middlesex)

43. (19) Ronalds of Brentford was listed by Abercrombie in 1786, both as a nurseryman and as a seedsman.

44. (19.A) 'Swindon' of Brentford also appeared in 1786.

45. (19.B) Bell's Nursery, (1793–1818)

ISLINGTON (Middlesex)

46. (19.C) The Colebrooke Row nursery was listed in 1786 as Watson and Watsons, Lower Street. William Watson made his will in November 1792 and was dead by January 1793. He was to be buried at Bunhill Fields and left bequests to the Revd. Nathaniel Jennings and to the trustees of 'the Meeting which Mr. Jennings preaches at'. The will shows that Thomas and James Watson were his brothers.²⁹

47. (19.D) Henry John & Co., nurserymen and seedsmen, of The Seed and Root Warehouse, Lower Street, opposite The Thatched House, may have succeeded to the nursery of Andrew Hogarth c. 1800.

Kingsland

48. (20) *The Kingsland Nursery* was run by Lewis and co. in 1786. Thomas Bassington had been succeeded before 1822 by George Henry Bassington who took George Hockley Bunney into partnership by the end of 1824. Bassington was succeeded by Bunney in the rate assessment on house and nursery at Midsummer 1826. Bunney was also at Bedford Conservatories, Covent Garden, by 1833, when he was raising new varieties of *Kennedya* and, rather later, of *Fuchsia*. He also entered the new trade in orchids, introducing *Oncidium leucochilum* from Guatemala in 1835.³⁰

Newington Green

49. (21) *Northampton Nursery*, Thomas Barr etc., 1791–1832.

Kennington – see LAMBETH

KENSINGTON (Middlesex)

50. (22) *The Kensington Nursery* was in 1786 listed both as Grimwood, Hudson and co. and as Hudson, Grimwood and co., at Brompton and Kensington; and among seedsmen as Grimwood and Hudson, Piccadilly. Daniel Grimwood the elder died on 6 August 1796 aged 71, leaving the business to his son Daniel Grimwood (II) in partnership with Samuel Hudson. Soon afterwards the firm was Grimwood junior, Rhodes and Wykes.³¹

Brompton

51. (23) In 1786 Brompton-park nursery, near Kensington, was listed as the address of Jefferies.

52. (24) Kirk, Brompton, was listed in 1786.

53. (25) The nursery founded by Henry Hewitt was in 1786 Hewit and co., Brompton, near Chelsea and Kensington.

54. (26) Abercrombie in 1786 listed Thobourn, Brompton.

55. Swinton, Foreign Nursery, Knightsbridge, was listed in 1786 but has not so far been identified: his nursery may have been in Chelsea parish or in the detached part of Westminster S. of Hyde Park.

56. (27) Curtis's Botanic Garden, 1789–(1809) – from Lambeth (65.).

57. (28) (Ellingham's Nursery, 1825).

58. (28.A) Shaw's Nursery, (1797).

59. (28.B) Mitchell's Nursery, (1797).

Little Chelsea

60. Shailer's Nursery, (1788–1815).

Kew – see RICHMOND

Kingsland – see HACKNEY, ISLINGTON

KINGSTON upon Thames (Surrey)

61. (29) Abercrombie's entry for Mitchelson and Mitchelson of Kennington (69.) shows that they also had a nursery at Kingston, probably this. 'Michellson' was a seedsman at Kingston in 1794.

Ham

62. Ham Common Nursery, Hairs, Hairs & Smith, (1789–91).

LAMBETH (Surrey)

63. (30) (William) North, Lambeth, near Westminster-bridge, was listed among the nursery-men; and North, Lambeth, among seedsmen.

64. (Walter) Hay, of Lambeth and St. George's Fields, appeared in 1786 as a nurseryman; and Hay, Parliament-street, Westminster, among seedsmen.

65. Higler's Lane, Lower Marsh.

William Curtis (1746–1799) in 1777 took a piece of land which he converted 'to the purpose of cultivating every British plant. To these he afterwards added such as were used in medicine, or considered as useful or noxious in agriculture'. In 1788 Curtis's grounds in Marsh and Wall Liberty were assessed at £17. Though this was a botanic garden rather than a trade nursery, it seems that Curtis did sell plants.³² Finding that atmospheric pollution was killing his stock, Curtis removed to Queen's Elm, Kensington (56.) in 1789.

66. (31) *Cotmansfield Nursery*, (1795)–1827.

67. (32) Tyers, etc., (1785–1800).

68. (33) Malcolm, Kennington, near Lambeth and Newington Butts, was listed by Abercrombie in 1786. Although rated by 1757, it was on 11 January 1758 that Malcolm had taken a lease for 19 years from William Clayton of a brick house and building adjacent lately built, with 8 acres of garden ground and another $3\frac{1}{2}$ acres, for a yearly rent of £60 'and 100 good and large asparagus' in January every year.³³ He moved in 1789 to Stockwell (72.)

69. In 1786 Abercrombie's entry was: Mitchelson and Mitchelson, Kennington, near Lambeth, Newington Butts, and Kingston, Surrey (61.)

70. Abercrombie included Chambers, Newington Butts, among the nurserymen of 1786. One Richard Chambers, who in 1762 sold 1,200 beech trees at 1s. per hundred to Mr. Donston of Worksop, Notts., may have been connected with this firm.³⁴

71. Watts, Lambeth Butts, among the nurserymen of 1786, was the firm which in 1789 appeared as William and David Watts, seedsmen, of Coney Walk, Lambeth. David Watts also had a seedsman's shop at 83 St. James's Street and was sending large orders of forest trees to country estates in 1786–88.³⁵ William Watts, nurseryman and florist, was of Walcot Place, Lambeth, in 1805; and William Watts, nursery and seedsman, of Camden Place, Peckham, in 1835–36. Presumably one of this family was the Watts, friend of Abercrombie and assistant to Philip Miller in the Chelsea Physic Garden, later head gardener to Mr. Sharp at South Lodge, Enfield, who was still living in 1822 as a nurseryman at Acton, where he was an expert in the propagation of mistletoe on most sorts of trees, including conifers.³⁶

72. (34) Malcolm's Nursery, 1789–1815 (above, 68.).

LEWISHAM (Kent)

73. (35) *The Lewisham Nursery* was in 1786 decribed as Russel & Co., Lewisham, near Greenwich.

Sydenham

74. Abercrombie in 1786 listed Pringle, Sydenham, among nurserymen. This was possibly William Pringle (c. 1742–1813) of Sydenham, buried at St. Mary's, Lewisham.³⁷

LEYTON (Essex)

75. (37) The nursery in Lea Bridge Road belonged to Syborne in 1786. This must have been Richard Siborne the younger (c. 1751–1821), whose principal ground seems to have been in Walthamstow.³⁸ From 1775 to 1812 he paid rates on other land in Leyton which became the nursery of Barber & Fairweath in 1812–26 and later belonged to James Pamplin (105.).

Leytonstone

76. (38) *Leytonstone Nursery* was assigned to (John) Hay by Abercrombie in 1786.

77. (39) *Holloway Down Nursery* was occupied in 1786 by (William) Perkins.

Leytonstone – see LEYTON

Mile End – see STRATFORD-BOW

MITCHAM (Surrey)

78. Pig's (Figg's) Marsh.

There was probably some nursery trade in plants of various herbs at the extensive Physic or 'Botanical' Gardens. Already founded in the time of Ephraim Potter (1703–1775), the gardens descended to his son James Potter (1734–1799) and to the latter's nephew James Moore (1770–1851). They afterwards passed to James Bridger (1806–1885), Moore's illegitimate son.³⁹

MORTLAKE (Surrey)

East Sheen

79. In 1786 Abercrombie listed Eddie as a nurseryman at East Sheen near Richmond. This was George Eddie, rated in that year for 'Colsill's Land' and another property, on a total valuation of £75.⁴⁰

New Cross – see DEPTFORD

NEWINGTON (Surrey)

80. (40) Driver, Kent-road, near the Borough of Southwark, was listed in 1786.

Walworth

81. (41) *The Walworth Nursery*, James Maddock, etc., c. 1770–1842.⁴¹

82. Camberwell Road (W. side), John Ruskin Street (S. side). 5 acres.

Montpelier Gardens, primarily a tea garden, also included a plant-centre. John Bendell was assessed at £34 in 1782–85, and in 1786 Abercrombie listed 'Bendel', Montpelier Gardens, Walworth, among nurserymen. His Bendel, Westminster-bridge Road, Lambeth, in the list of seedsmen, may indicate a separate shop belonging to the same proprietor. The Gardens were described in 1788, when it was stated that 'Gentlemen are served here with shrubs, flowers, or seeds'.⁴²

83. Abercrombie in 1786 listed, among both nurserymen and seedsmen, 'Townly, Walworth.' E. W. Townley signed the Newington poor rate assessments of 1789–90 as an Overseer, and in 1805 was a nurseryman, seedsman and land surveyor of 27 Crosby Row, Walworth.⁴³

Newington Green – see ISLINGTON

PADDINGTON (Middlesex)

84. In 1786 Latin, 'Edgward'-road, Paddington, was listed as a nurseryman.

85. Prior, Paddington, was named as a nurseryman in 1786.

PUTNEY (Surrey)

86. (42) *The Putney Nursery* in 1786 was listed as occupied by 'Howie' (William Howey).⁴⁴

RICHMOND (Surrey)

Kew

87. (43) *Kew Green Nursery*, c. 1680–(1800).

ST. MARYLEBONE (Middlesex)

88. Lisson Grove (E. side), Broadley Terrace (S. side), Marylebone Station, Melcombe Place. 9 acres.

Alexander Cunningham was first rated as occupier of a garden at Lisson Grove in 1773 on an assessment of £30, as well as £10 on his house, No. 4 Lisson Grove, by 1786, when he was

listed as Cunningham, Lisson Green, 'Paddington'. In 1792 he took over another house and land 'in the Fields' valued at £90, and moved from his old house to a newly built one at the N. end of Gloucester Place. No. 4, Lisson Grove, was then taken by John Cunningham, probably his son. In 1800 the Cunninghams gave up the nursery, which was taken over by Thomas Jenkins (d. 1832). At first in partnership with (? James) Cochrane, and from 1812 with Gwyther, Jenkins in 1814 opened a second nursery in the Inner Circle of Regent's Park, later the gardens of the Royal Botanic Society and since 1932 Queen Mary's Garden. In 1819 Jenkins issued an important catalogue in two editions and specialized largely in stove and greenhouse plants. The original nursery became a subscription botanic garden, but the land was let for building in 1829. Much of the nursery stock was sold off at the end of 1834, after Jenkins' death, but the firm existed until 1836.⁴⁵

89. Maida Vale (E. side), Abercorn Place (S. side), Hamilton Terrace (W. side), Hall Road (N. side). 5½ acres.

The Pine Apple Nursery. From 1793 the garden E. of the Edgware Road, next to the terrace of houses beside the turnpike, called Pine Apple Place, was rated to Andrew Henderson. This became the important nursery later celebrated for Geraniums, Roses, Heaths, Chrysanthemums, aquatic plants, and rare bulbs. The firm was Andrew Henderson & Son by 1817, and John Andrew Henderson & Co. from 1844 to 1852.⁴⁶

ST. PANCRAS (Middlesex)

90. (44) *The Bedford Nursery.* It was this nursery which was occupied by Thomas Brown in 1825, and probably earlier.⁴⁷

91. (44.A) West's Nursery, (1775).

Highgate

92. (44.B) Abercrombie in 1786 listed 'Bowstead' (William Bowstead) as a nurseryman at Highgate.

Sheen, East – see MORTLAKE

SHOREDITCH (Middlesex)

93. (45) *The Pine Apple Nursery* was listed in 1786 as Allport, Hackney Road near Shoreditch.

94. (45.A) *Hoxton Field Nursery.* Abercrombie's entry of 1786 was for (John) Renton, Hoxton, near the Ivy-house. Renton had been rated since 1783 as occupier of land assessed at £10, adjacent to the garden of Alexander Gammock (95.). The land was taken over by John Bassington in 1792 and let for building two years later. Renton's *Treatise on Gardening*, issued in parts, has been shown by Dr. Hugh Bilbrough to be an impudent piracy of Thomas Whateley's *Observations on Modern Gardening* (1770).⁴⁸

95. Adjacent to the Hoxton Field Nursery (94.) was a nursery occupied since 1764 by Alexander Gammock and consisting of a property assessed at £16 with, after 1766, another piece of land valued at £3, later at £6. Gammock, Hoxton, was listed among London nurserymen in 1786. In 1793 the whole property was taken over by John Bassington and let for building in the following year. The land was next to Westby's Almshouses and, after 1771, to Brett's Buildings.⁴⁹

96. Another Hoxton nursery, adjacent to the above was occupied from 1762 by John Bassington, one of the executors of the famous nurseryman James Gordon (d. 1780). This nursery had, from 1724 until shortly before 1762, been worked by Richard Spire, friend and executor of the great Thomas Fairchild (1667–1729).⁵⁰ Bassington was listed as a nurseryman of Hoxton near Shoreditch in 1786 and in 1788 was a member of a jury summoned by the Paving Commissioners to value property at Stepney. He was then described as gardener of Hoxton Town.⁵¹ After taking over the grounds of Renton and Gammock in 1792–93, Bassington let the whole for building in 1794.

SLOUGH (Buckinghamshire)

97. In 1798 Thomas Brown was described as a seedsman of Slough, near Windsor. He probably founded the nursery later carried on by Charles Brown (d. 1836), noted for providing the blue heartsease used in the original hybridization which produced the modern pansy about 1813. Later the firm was T. & E. Brown, celebrated by 1839 for florists' flowers and for American bog plants. They also had London premises at the Egyptian Hall, Piccadilly.⁵²

SOUTHWARK (Surrey)

98. The list of nurserymen in 1786 includes Shepherd of Kent Street, Borough, and Southwark. He has not yet been identified, but some connection is possible with A. Sheppard, nursery and seedsman, Blue Anchor Road, Bermondsey, in 1836.⁵³

STEPNEY (Middlesex)

99. Gregg, of Crombie's Gardens, Halfway House, Stepney, was listed as a nurseryman in 1786. Twenty years earlier there had been a sale of rare plants at 'the Garden in Whitechapel Fields, next the Half-way House', and this probably indicates that the nursery was of old standing.⁵⁴ Gregg may perhaps be identical with David Greig of Edgware (26.).

Stockwell – see LAMBETH

Strand-on-the-Green – see CHISWICK

STRATFORD-BOW (Middlesex)

100. (46) *The Mile End Nursery* appeared in 1786 both as Gordon (James) and co., and as Thomson and Gordon. Abercrombie also listed Dermer and Gordon, and Gordon and Dermer, Fenchurch Street, among seedsmen.

101. There was also in 1786 a separate Mile End nursery of William Gordon, one of the sons of James Gordon (d. 1780).

STREATHAM (Surrey)

Upper Tooting

102. (47) Hay, Tooting, was a nurseryman listed in 1786.

Sydenham – see LEWISHAM

Tooting, Upper – see STREATHAM

TOTTENHAM (Middlesex)

103. (48) Abercrombie in 1786 listed (William) Coleman, Tottenham, among nursery gardeners.

Turnham Green – see CHISWICK

TWICKENHAM (Middlesex)

104. (49) Ashe's Nursery, (1748–1800), Strawberry Hill.

WALTHAMSTOW (Essex)

105. *Wood Street Nursery*. William Pamplin (d. 1805), son of John Pamplin of Halstead, Essex, founded or took over the nursery at Walthamstow well before 1800. At his death it passed to his son James Pamplin (1785–1865), younger brother of William Pamplin of Chelsea (15.). James Pamplin carried on the business, along with a branch nursery in Lea Bridge Road, Leyton, from 1838 (see 75.). This in 1860 was handed over to his son William. James died at the Walthamstow Nursery in 1865, and William continued that at Leyton until 1869.⁵⁵

WALTON ON Thames (Surrey)

Hersham

106. In 1790 Hugh Wilson, nurseryman at Hersham, subscribed to William Speechly, *A Treatise on the Culture of the Vine*.

Walworth – see NEWINGTON

WESTMINSTER (Middlesex)

107. Samuel Fullmer, gardener, Horse-ferry Road, in 1781 issued, with others, *The Young Gardener's Best Companion*, republished in 1786 by Alexander Hamilton. From 1782 William Harpur was rated in Horseferry Road, his house and ground being described from 1789 as part of "Fulmer's Row". In 1786 Harpur, Horse-ferry-road, was listed as a nurseryman. He disappeared from the rates after 1793.⁵⁶

WEYBRIDGE (Surrey)

108. Henry Scott, who had been head gardener to Lord Burlington at Chiswick Park from 1738, opened a nursery at Weybridge in 1754, the year after the earl's death. Scott's engraved trade card shows that he stocked pineapples, seeds, fruit trees, flowering shrubs and greenhouse plants.⁵⁷ Late in the same year his daughter Martha was born; in 1760 Anne, the wife of Mr. Henry Scott ('Gardiner'), was buried. It is uncertain for how long this nursery continued.⁵⁸

WHITECHAPEL (Middlesex)

109. *Ducking Pond Lane Nursery*. In 1786 one Brinkworth had a nursery at Ducking Pond Lane in Mile End Old Town, opposite to Mile End Green.

WINDSOR (Berkshire)

110. James Burn, a gardener and nurseryman in 1784, was described as a nursery-man by 1798.

111. Richard Streeter was a nurseryman at Windsor in 1798.

WOKING (Surrey)

112. *Goldsworth Old Nursery*. Said to have been established in 1760, by 1812 this was occupied by Robert Donald, then an executor of John Cree the elder (17.), along with Hugh Ronalds (II) of Brentford (43.). Donald in 1822 issued *A new system of national and practical agriculture, to relieve distress, reduce the poor rates, and to improve estates* in hexameter verse! John Donaldson stated that its 'practical ideas are perfectly sound and correct'. Donald was later famous for Azaleas and for his well arranged Arboretum; he was still living in 1850 but had died by 1854.⁵⁹

WOOLWICH (Kent)

113. Samuel Hardin was described as a gardener and nurseryman, Woolwich, in 1784.

NOTES

Abbreviations used:

<i>Agric. Hist. Rev.</i>	<i>Agricultural History Review.</i>
A.O.	Archives Office.
B.M. (P. and D.)	British Museum, Dept. of Prints and Drawings.
Bodl. J. J.	Bodleian Library, John Johnson Collection.
<i>Bot. Mag.</i>	Curtis's <i>Botanical Magazine</i> .
<i>Bot. Rep.</i>	H. Andrews, <i>Botanist's Repository</i> .
Edwards 1801	J. Edwards, <i>A Companion from London to Brighthelmston</i> .
<i>Flor. Cab.</i>	<i>Floricultural Cabinet</i> .
<i>Gard. Chron.</i>	<i>The Gardener's Chronicle</i> .
<i>Gard. Mag.</i>	<i>The Gardener's Magazine</i> .
G.L.R.O.	Greater London Record Office.
Hadfield 1969	M. Hadfield, <i>A History of British Gardening</i> .

Holden Lib.	Holden's <i>Triennial Directory</i> , 1805.
Loudon 1822	Library.
	J. C. Loudon, <i>An Encyclopaedia of Gardening</i> .
Loudon 1829	J. C. Loudon, <i>An Encyclopaedia of Plants</i> .
Mangles 1839	J. Mangles, <i>The Floral Calendar</i> .
Min. Lib.	Minet Library, Lambeth.
<i>Paxton Mag. Bot.</i>	<i>Paxton's Magazine of Botany</i> .
P.R.O.	Public Record Office.
<i>Proc. Linn. Soc.</i>	<i>Proceedings of the Linnean Society</i> .
R.O.	Record Office.
Robson 1836	Robson's <i>Classification of Trades</i> .

References are, in general, not given for information from directories; the list of firms in 1786 is in J. Abercrombie, *The Gardener's Daily Assistant*, 355-9, and is reprinted in J. H. Harvey, *Early Nurserymen* (1975), 196-200.

- ¹ *Transactions of the London and Middlesex Archaeological Society*, XXIV (1973), 177-98.
- ² For the trade catalogues see J. H. Harvey, *Early Gardening Catalogues* (1972), and *Early Horticultural Catalogues — a Checklist* (University of Bath, 1973).
- ³ *Agric. Hist. Rev.*, XXII (1974), 21, 23, 34-5.
- ⁴ Wills, Middlesex R.O., MDR, 1823/9/2, 3.
- ⁵ Tower Hamlets Lib., Land Tax; Deed 3629, by kind information of Mr. Nurse.
- ⁶ Bromley Central Lib., by kind information of Miss Plincke; family information generously communicated by Mr. H. B. Blandford-Baker.
- ⁷ Loudon 1822 (3rd ed., 1828), 1132.
- ⁸ Chelsea Lib., Rate Books, by the kindness of Mr. C. Edwards; B.M. (P. and D.), Banks Collection.
- ⁹ Kensington and Chelsea Lib., by kind information of Miss E. J. Willson.
- ¹⁰ A. M. Coats, *The Quest for Plants* (1969), 293.
- ¹¹ Chelsea Lib., Rate Books, as note 8.
- ¹² Walthamstow Antiquarian Society, Monograph No. 23; Leyton Lib., by kind information of Mr. M. L. Savell; Chelsea Lib.; G. Bryan, *Chelsea* (1809), 170; *Proc. Linn. Soc.*, 1899-1900, 80-1, a reference for which I am grateful to Mr. Gavin Bridson.
- ¹³ Surrey R.O., Court Books of Chertsey Beamond, by the kindness of Mr. B. F. J. Pardoe; Berkshire R.O., D/E WeA.3, p. 271; Buckinghamshire R.O., D/LE/11/10, 61.
- ¹⁴ Surrey R.O., as note 13; will, P.R.O., Prob. 11/1588 (P.C.C. 8 Effingham).
- ¹⁵ Bodl. J. J., horticulture box 7.
- ¹⁶ Will, Essex R.O., D/AMR 11/56.
- ¹⁷ *Flor. Cab.*, XI, 199; Maund, *Floral Register*, nos. 1877, 1977, 2056, 2068, 2138; Loudon 1829, 1539; J. Britten & G. S. Boulger, *British and Irish Botanists* (2nd ed., 1931), 124.
- ¹⁸ J. Lawrence, *The Clergy-Man's Recreation* (1714), preface; information kindly sent by Mrs. R. K. Judges from records of the Manor of Sutton, etc.
- ¹⁹ W. J. Pinks, *History of Clerkenwell*; Finsbury Lib., Rate Books, by the kindness of Mrs. E. V. Lewis.
- ²⁰ J. H. Harvey, *Agric. Hist. Rev.*, XXII (1974), 21, 25-33.
- ²¹ *Bot. Mag.*, 24.963.
- ²² Lincs. A.O., Anc 8/16; Fulham Rate Book, by the kindness of Miss E. J. Willson; P. D. Whitting ed., *A Short History of Fulham* (1970), 235-6.
- ²³ Hackney Lib., Rate Books and Land Tax records, by kind information of Mr. S. C. Tongue.
- ²⁴ Hackney Lib., as note 23.

- ²⁵ *Bot. Rep.*, VI, 388; Hackney Lib., census 1811, documents M 555, 718-19, by kind information of Mr. S. C. Tongue; Loudon 1822.
- ²⁶ St. Pancras Lib., Rate Books, by the kindness of Miss M. Wade.
- ²⁷ P. Willis, *Furor Hortensis* (1974), 46; A. R. Bax, *Allegations for Marriage Licences, Surrey 1673-1770*.
- ²⁸ Herts. R.O., DE 3857; Bodl. J. J., horticulture 8; cf. J. H. Harvey, 'Forest Trees and their Prices before 1850', *Quarterly Journal of Forestry*, LXVII (1973), 30, 33.
- ²⁹ Will, P.R.O., Prob. 11/1229 (PCC 119 Dodwell).
- ³⁰ Directories, especially the Post Office Directory for 1826, for an analysis of which I am extremely grateful to Mr. J. G. W. Lewarne; Islington Lib., Rate Books; Paxton *Mag. Bot.*, II (1835), 75, 186; IV (1837), 75; *Flor. Cab.*, IX (1841), 41.
- ³¹ Kensington Lib., Burial Book, by kind information of Miss R. J. Ensing; will, P.R.O., Prob. 11/1278 (PCC 410 Harris); Notts. R.O., Edge papers.
- ³² J. H. Harvey in *The Garden History Society Newsletter*, No. 13, May 1971, 3.
- ³³ Surrey R.O., 60/4/35, by kind information of Mr. P. G. Atherall.
- ³⁴ Notts. R.O., DDN 212/96.
- ³⁵ Lincs. A.O., Nelthorpe IX/1/92, 93, 94; Robson 1836.
- ³⁶ Loudon 1822 (3rd ed., 1828), pp. 902, 1065.
- ³⁷ *Monumental Inscriptions of St. Mary, Lewisham*, by kind information of Mr. R. A. Greenhill.
- ³⁸ Leyton Lib., parish books, by the kindness of Mr. M. L. Savell.
- ³⁹ Society of Genealogists, Mitcham Pedigrees MS. (Ac. 25878), pp. 330-33; transcript of parish registers.
- ⁴⁰ Richmond Lib., Mortlake Rate Books, by the kindness of Mr. Derek Jones.
- ⁴¹ *Flor. Cab.*, X, 260-1, shows that Henry Groom had moved from the Walworth Nursery to Clapham Rise before 1 November 1842.
- ⁴² Edwards 1801, 10; cf. note 32 above.
- ⁴³ Southwark Lib., Newington Rate Books; Holden.
- ⁴⁴ See J. H. Harvey, 'The Putney Nursery; an early Plant Centre', *Surrey Archaeological Collections*, LXIX (1973), 135-42.
- ⁴⁵ Westminster Lib.; Marylebone Lib., Rate Books and Local History Room; Loudon 1822; *Gard. Mag.*, V, 339; VIII, 384; R. Webber, *The Early Horticulturists* (1968), 26; *Flor. Cab.*, VII, 93.
- ⁴⁶ Marylebone Lib., Local History Room; Mangles 1839, 96-8.

- ⁴⁷ The entry in the Post Office Directory for 1826 is; Brown, Thomas, nurseryman, Bedford Nursery, New Road, Pancras. See above, note 30.
- ⁴⁸ H. Bilbrough, unpublished thesis, and personal communication.
- ⁴⁹ Hackney Lib., Shoreditch archives, by kind information of Mr. S. C. Tongue.
- ⁵⁰ G.L.R.O., P.91/KEN/44, p. 26; Survey of London, VIII, 1922, 82-3; Gordon's will, PCC 20 Webster.
- ⁵¹ Tower Hamlets Lib.
- ⁵² *Flor. Cab.*, II, 45; III, 187, 258, 292; VI, 238-9; VII, 259; IX, 157, 223; *Gard. Chron.*, 1883, vol. ii, 134; Mangles 1839, 97, 98, 100.
- ⁵³ Robson 1836.
- ⁵⁴ W. Roberts in *Gard. Chron.*, 1918, vol. ii, 245-6.
- ⁵⁵ Walthamstow Antiquarian Soc., Monograph No. 23; Leyton Lib.
- ⁵⁶ Westminster Lib., Rate Books.
- ⁵⁷ Hadfield 1969, 187; B.M.(P. and D.), Banks Collection.
- ⁵⁸ Min. Lib., transcript of Weybridge parish registers.
- ⁵⁹ *Gard. Mag.*, III, 122; VI, 379; John Donaldson, *Agricultural Biography*, (1854), 113; *Flor. Cab.*, X, 142; E. W. Brayley, *History of Surrey*, II, (1850), 27.

ACKNOWLEDGEMENTS

This paper, like its predecessor, rests upon the very great generosity of many correspondents, institutional and individual. I wish particularly to thank the staffs at the British Museum (Map Room and Department of Prints and Drawings), the Bodleian Library, the Guildhall Library, the London Library, the Library of the Royal Botanic Gardens, Kew, and the Lindley Library of the Royal Horticultural Society, as well as those of the record offices and libraries mentioned in the Notes. My personal gratitude goes especially to Dr. Hugh Bilbrough, Mr. H. B. Blandford-Baker, Miss A. M. Coats, Mr. R. G. C. Desmond, Miss R. J. Ensing, Mr. Richard Gorer, Mr. Robert Holden, Dr. A. E. J. Hollaender, Mrs. R. K. Judges, Mr. J. G. W. Lewarne, Mr. Bernard F. J. Pardoe, Mr. Hugh S. Pocock, Mr. Maurice Smith, Mr. Ken Spelman and Miss E. J. Willson.

This article has been printed with the assistance of a generous grant from the MARC FITCH FUND.

RAILWAYS AND WILLESDEN

MICHAEL ROBBINS

Scores of thousands of people in the world — perhaps millions — have heard the name of Willesden only when it is followed by the word "Junction". Willesden shares this distinction, if it is one, with Clapham, and perhaps with nowhere else. This fact tempts people to believe that modern Willesden must have been a creation of the railway, just like Crewe or Swindon. This is substantially true, just as it is of every outer suburb in the London area. Yet there is no simple story of railway provision being followed within a short period by corresponding residential settlement. The two were of course linked; the railways were a cause and the settlement one of their effects, but this did not come about so quickly in every case or so straightforwardly as might be supposed. In Willesden the development proceeded with considerable delays and rather patchily. Nevertheless, the arrival of the railways provided the essential detonator for Willesden's conversion from the mainly rural parish that it still was in 1875 to the phenomenally developing suburban area of 1895–1905, when the population grew at a greater rate than any district of Greater London except East Ham.

Willesden is particularly fortunate in possessing a source-book of very great value for the study of its development. This is *The Willesden Survey 1949*, prepared by Mr. John Morris, the Borough Engineer and Surveyor and published by the Corporation in 1950. By the time the *Survey* was published Willesden had ceased to be a planning authority; but the volume, in presenting its analysis as a basis for planning, contains material precious to the local historian. The *Survey* observed: "Probably the factor which most influenced the layout of Willesden was the development during the last century of the Railway network"; and it called attention to the pattern formed by the railway lines in dividing the parish and borough into separated pockets of land which provided the framework for the residential estates and so for all subsequent development. The railway was all-important in the topographical sense, and it had important social consequences too.

Table I gives the population figures, which give the fundamental facts about Willesden, as of any place, and beside them the number of railway stations open for passenger traffic at the respective dates.

TABLE I
WILLESDEN: POPULATION AND RAILWAY STATIONS, 1841–1951

Year	Population	Decennial Increase		Passenger railway stations
		No.	per cent	
1841	2,930*	—	—	0
1851	2,939	—	*	1
1861	3,879	950	32	2
1871	15,869	11,990	309	3
1881	27,453	11,584	73	9
1891	61,057	33,604	122	7
1901	114,582	53,525	88	9
1911	154,214	39,632	35	9
1921	165,674	11,460	7	12
1931	185,025	19,351	12	12
†				
1951	179,647	5,378	(-) 3	12

* 1841 census taken in June, with significant number of migrant haymakers counted, thus inflating the figure.

† 1938 figure (estimated), 198,000.

At the 1841 census an important line of railway — the London & Birmingham, London's first main-line railway, opened throughout in 1838 — passed across the southern part of the parish of Willesden but had no passenger station within its boundaries; the first station out of London was at Harrow. In May 1844, however, two intermediate stations were added, one at Willesden just by the Acton Lane level crossing and another at Sudbury which has become the Wembley Central station of today. (There is a slight mystery about this Willesden station; it was probably first opened in 1841, for it appears in a railway time-sheet of that year, but seems to have been closed again.) An ancient and fragrant story has been frequently repeated, to the effect that the Willesden station (which was a very modest structure with a total station staff of one, affectionately known as "Old Spinks") was opened and kept open only because the general manager of the London & North Western, Captain Mark Huish, resided at Harlesden House. As to the decision to construct and open the station, this cannot be correct, because in 1844 Captain Huish had not yet come to Euston — indeed, he was then secretary and general manager of the Grand Junction Railway, residing at Liverpool. But the little station had a relatively lavish provision of trains to serve the very small number of surrounding inhabitants: *Bradshaw's Guide* for 6th Mo. (June) 1st, 1849 — George Bradshaw was a Quaker, and this form of indicating the months was carried on into the 1930s — shows six down trains, from 7 a.m. to 10.14 p.m., and six up trains, from 8.48 a.m. to 9.21 p.m., booked to call there on weekdays (three each way on Sundays). Spinks had a long day, even if the duties were somewhat intermittent.

In the month after the opening of this little station, the origins of Willesden Junction itself came into being some half-mile nearer to London on a portion of the London & Birmingham line running across the northern tip of Hammersmith parish between the two stretches which lay in Willesden. It is curious that for many years — until 1912, in fact — only a very tiny part of the passenger accommodation of Willesden Junction lay within Willesden, and ironical that the place was known almost world-wide for something over the border in Hammersmith (and after 1889 in another county — London, not Middlesex). A connecting railway, rejoicing in the extravagant title of Birmingham, Bristol & Thames Junction Railway but soon more conveniently retitled West London Railway, was constructed to link both the London & Birmingham and the Great Western, which lay a few hundred yards to the south, on the other side of Kensal Green cemetery (it had originally been proposed to make a junction here with the London & Birmingham so that both lines could use the Euston Square terminus), with Kensington and there to tranship coal and goods down the Kensington Canal to the Thames. A station house (which was still in existence until the late 1950s) was built at West London Junction where passengers might change out of the West London train from and to trains serving stations on the London & Birmingham line to the north, and a passenger service of sorts was operated from 10 June to 30 November 1844. It is not known exactly how they interchanged from and to the Great Western, which was crossed on the level — a dangerous arrangement with the primitive devices available before signals were interlocked with points and with each other. It is recorded that a bar of wood was lowered by cords to act as a stop across the single line whenever any train had to pass on the Great Western main line, and there is a picture of it. Accidents did happen there, so the West London line was later raised to pass over the Great Western. But as West London Junction was intended only for interchange and not for local passengers it did not contribute anything in its short life to the local growth of Willesden.

The next railway to arrive, which took off from the main line of the London & North Western (as the railway became in 1846) a few yards west of West London Junction, was another connecting link but one that really did connect from the start with one of the southern railways: the North & South Western Junction, down to the London & South Western at Kew. This was intended primarily for the exchange of goods traffic and was brought into use for that purpose in February 1853. In August of the same year, the North London Railway, which then operated a service of passenger trains from Fenchurch Street via Bow, Hackney and Islington to Hampstead Road (Chalk Farm), began to run forward from Chalk Farm over the North Western's tracks to the new junction at Willesden (with no station there) and down the North & South Western Junction to Acton and Kew: four passenger trains a day.

The North Western main line became excessively heavily occupied during the late 1850s, and the company promoted a new link, the Hampstead Junction Railway, between the North London at Camden Town and the North & South Western Junction Railway south-west of Willesden. This line was opened on 2 January 1860 — an important date in railway history, marking the introduction at Kentish Town Junction, just west of Camden Road station, of the first fully operative installation of signals interlocked with points. The only station in Willesden was called Edgware Road (Kilburn), and that was at first the terminus for most of the trains from Camden Road — a few went on down the North & South Western Junction to Twickenham or Kingston. But on 1 November 1861 a station called Kensal Green & Harlesden was opened, close to the Harrow Road where the Wrotesley Road bridge now is. From a junction a little way to the west of this station the new H.J. line was connected by three links — one to the main line to the north; one to Old Oak Junction on the North & South Western Junction; and one right round to Mitre Bridge Junction on the West London. These last two crossed over the main line on separate alignments; and in this area the North-Western opened a new station, the real Willesden Junction, on 1 September 1866. From 2 September 1867 this station incorporated three separate portions — platforms on the main line at low level and two separate high-level stations. It was a terrible station for passengers: trains for the City (Broad Street station had been opened on 1 November 1865) left alternately from the two sets of high-level platforms which were reached from the low level by separate staircases, and there was much running to and fro between them. It was alleged, too, that the place was haunted by the ghosts of passengers who had expired while vainly trying to find the way out. There is a marvellous description of the junction at this period in Anthony Trollope's *The Prime Minister*, published in 1875 — chapter LX, "The Tenway Junction".

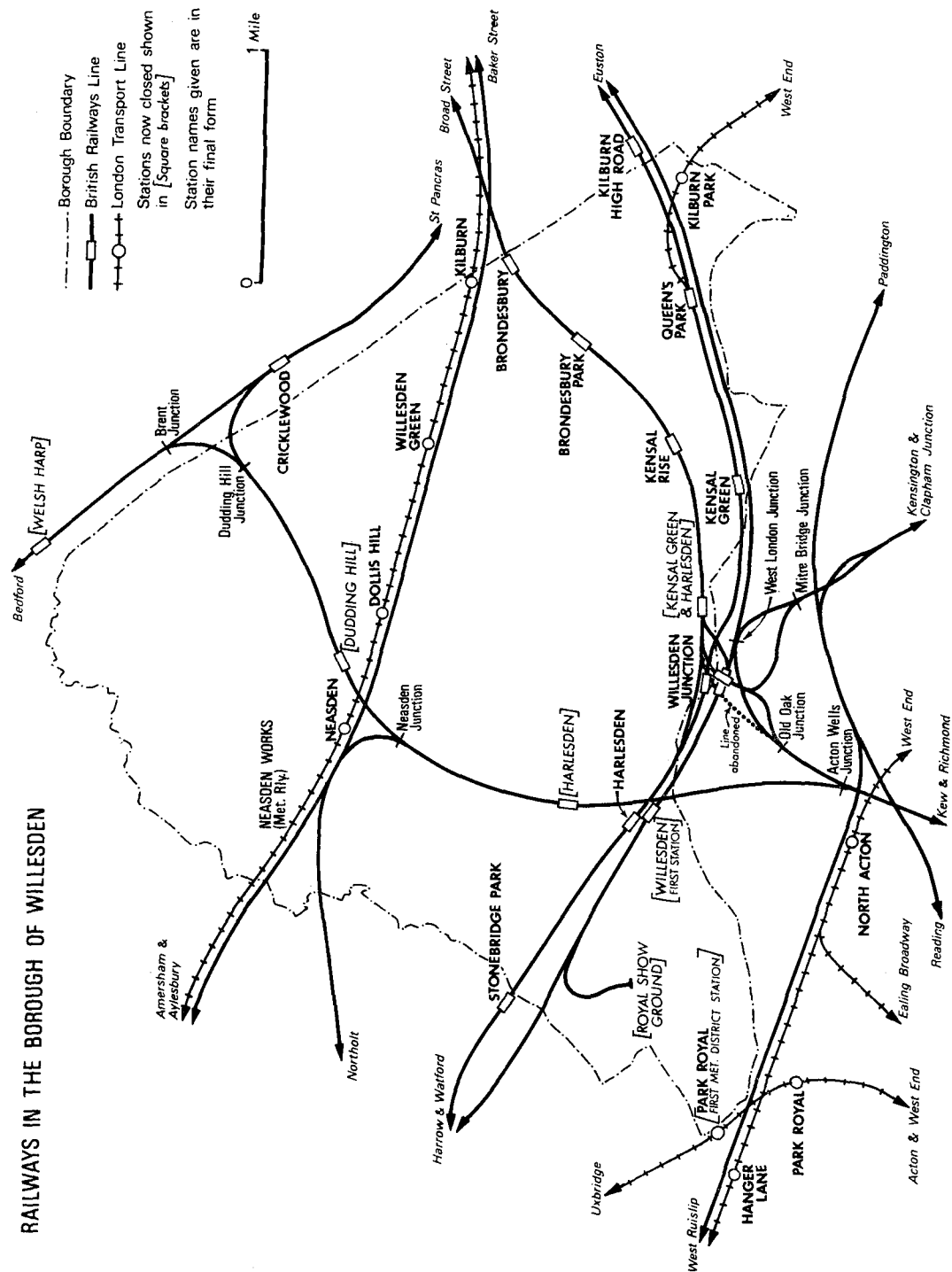
It is quite unnecessary to describe the Tenway Junction, as everybody knows it. From this spot, some six or seven miles distant from London, lines diverge east, west, and north, north-east, and north-west, round the metropolis in every direction, and with direct communication with every other line in and out of London. It is a marvellous place, quite unintelligible to the uninitiated, and yet daily used by thousands who only know that when they get there, they are to do what some one tells them. The space occupied by the convergent rails seems to be sufficient for a large farm. And these rails always run one into another with sloping points, and cross passages, and mysterious meandering sidings, till it seems to the thoughtful stranger to be impossible that the best trained engine should know its own line. Here and there and around there is ever a wilderness of wagons, some loaded, some empty, some smoking with close-packed oxen, and others furlongs in length black with coals, which look as though they had been stranded there by chance, and were never destined to get again into the right path of traffic. Not a minute passes without a train going here or there, some rushing by without noticing Tenway in the least, crashing through like flashes of substantial lightning, and others stopping, disgorging and taking up passengers by the hundreds. Men and women, — especially the men, for the women knowing their

ignorance are generally willing to trust to the pundits of the place, — look doubtful, uneasy, and bewildered. But they all do get properly placed and unplaced, so that the spectator at last acknowledges that over all this apparent chaos there is presiding a great genius of order. From dusky morn to dark night, and indeed almost throughout the night, the air is loaded with a succession of shrieks. The theory goes that each separate shriek, — if there can be any separation where the sound is so nearly continuous, — is a separate notice to separate ears of the coming or going of a separate train. The stranger, as he speculates on these pandemoniac noises, is able to realise the idea that were they discontinued the excitement necessary for the minds of the pundits might be lowered, and that activity might be lessened, and evil results might follow. But he cannot bring himself to credit that theory of individual notices.

After nineteen years of this the North-Western reconstructed the layout so that all high-level trains used one pair of platforms (the Kensington line ones) and finally in 1894 built one big high-level island platform at the east end of the main station. The embankments of the old Kew line formation were clearly visible until recently, and a portion still remains. Kensal Green & Harlesden station lost much of its usefulness when the new Willesden Junction was opened, being so close to it, and in 1873 it was closed and replaced by a new station farther to the east, on Chamberlayne Road. (This station was re-named Kensal Rise in 1890.) There was a nasty accident in the main-line part of the station on 5 December 1910, when five people — two of them clerks employed by the L.N.W.R. on their way to work — were killed and more than 50 injured, when a Watford-Euston train standing at Platform 4 while tickets were being collected was run into from the rear by the following passenger train.

This activity of the London & North Western was all on the fringes of Willesden, to the south especially, and on the east. Another company, the Midland, was making a very significant physical impact on the pattern of Willesden, with a line from near the Welsh Harp in the north-east, swinging round to leave the parish at the south-west, near Acton Lane. This line in the 1860s and the Metropolitan which followed at the very end of the seventies were crossed by roads or footpaths at relatively few points, which meant that the parish was effectively cut up into seven portions, and communication between them was limited to a small number of access points. "The railways", said *The Willesden Survey* of 1949, "constitute physical barriers which will materially dictate the future redevelopment of the Borough".

The Midland Railway, an undertaking based not on London, like its rivals, but on Derby, arrived in the capital later than they did. Having obtained Parliamentary powers to build from Bedford to St. Pancras in 1863 (this railway being opened in 1868), the Midland soon decided to construct a loop line round the west side of London to link with the South Western; and this was authorised in 1864 under the title of Midland & South Western Junction Railway, to run from Brent Junction on the Midland (where it was to connect in the north-bound direction, freight traffic being the primary consideration) to Acton Wells Junction on the North & South Western Junction. (The Midland first leased and then in 1874 absorbed the smaller company, so that the name, Midland & South Western Junction, was available for, and was used after 1884 by, another line linking the same two railways much farther west, between Cheltenham and Andover via Cirencester and Swindon: this has been a source of some confusion to railway historians, if to nobody else.) Freight traffic duly began to be hauled over this line on 1 October 1868; but passengers had been contemplated in the authorising Act of 1864, and stations were built at Dudding Hill and on the Harrow Road at Stonebridge Park. A curve was put in at the Hendon end to enable trains to run direct from Child's Hill station (which, with Welsh Harp, had been opened in 1870) to the new line; and limited passenger services of various sorts were provided between 1875 and 1902, apart from a period of complete suspension between 2 July 1888 and 1 March 1893. Most of the trains ran only as far as Child's Hill so that a change there was required of City passengers.



An express passenger train between Bradford and Bournemouth used the line from 1905 to 1908 but made no stops. For passenger traffic, the Cricklewood and Acton branch, as it was usually known, was one of the Midland's disappointments; but its value as a goods transfer link was very great, and in the days of steam both L.M.S. and Southern engines hauled frequent trains of coal and other traffic along it. Stonebridge Park was stated by the topographer James Thorne in 1875 to be "a cluster of 60 or 80 smart new villas for City men with a large inn, the Stonebridge Park hotel, and a station on the Midland Railway"; but, unless there had been skilful speculation by a builder in advance of the train service being provided, this railway can hardly have been the cause of the development of Stonebridge Park. Virtually no development took place at or near Dudding Hill station during the time it was open.

The impact of the Metropolitan Railway on Willesden was in the end the most significant of all; and yet this too was rather surprisingly slow to show itself. The underlying reasons for the Metropolitan's series of decisions to push out from Baker Street to the north-west — first to Swiss Cottage, then to Willesden Green, to Harrow, Rickmansworth, Chesham, and Aylesbury, with intermittent dreams or nightmares of breaking out to Northampton, or Worcester, or perhaps Birkenhead or Manchester — are inappropriate subjects for discussion here; they can be read about elsewhere. But, wherever its ultimate destination might be, the Metropolitan was willing and anxious to secure passengers anywhere along its line; and it had one particular and domestic reason for extending outwards. Its locomotive depot and repair shops, sited in a dingy and smoke-fouled hole at Edgware Road station (in Marylebone), were rightly regarded as insalubrious and inefficient to a degree that shocked even that thick-skinned generation of railway managers; somewhere in the country had to be found for the workshops and their workers, and Neasden was selected as the site. It is recorded that the acquisition of the 290 acres of land required by the Metropolitan in the western part of the parish gave rise to great differences of opinion with the owners of The Grove, Neasden House, and Chalk Hill: the railway offered £51,000; the owners wanted £112,000; the arbitration award gave them £83,000. Some housing was built by the railway for its workers, as the names of streets testify — Quanton, Verney, Aylesbury, and Chesham, all Metropolitan stations. The works not only repaired locomotives and rolling stock but also actually built three engines in 1896 and 1898.

The Metropolitan Railway was opened through Willesden in two sections: from West Hampstead to Willesden Green on 24 November 1879, with a station at Kilburn, where the line crossed the Edgware Road; and from Willesden Green to Harrow on 2 August 1880 with an intermediate station at Kingsbury & Neasden (but no other, Wembley not being thought to justify one until 1894).

There is one other railway development of the 1870s to record: the opening of Queen's Park station on the Euston main line on 2 June 1879, at the same time as a regular hourly service of stopping trains was put on between Euston and Watford. Previously the intervals had been much longer, but now, with the completion of the second pair of tunnels at Primrose Hill, four tracks were available all the way. The Queen actually did go to Queen's Park by railway soon afterwards: the Royal Agricultural Society were holding their show there, in that memorably wet summer of 1879. The Queen's visit had to be postponed because the show ground was a quagmire. However, in the royal train arriving from the Windsor direction and having to be zig-zagged from High to Low Level at Willesden Junction, she did eventually make the visit; but this royal journey was remembered without satisfaction by

the North Western officers — “contrary”, one of them wrote, “to the well known punctuality of Her Majesty, the return train was no less than 22 minutes late in starting”. Of more lasting importance was the adjacent housing estate lying between Queen’s Park and the Harrow Road undertaken by the Artisans’, Labourers’ and General Dwellings Company, of which particulars were published in 1875 but which no doubt went forward on an understanding with the railway company that a station would be provided as soon as the additional railway tracks were complete.

The 1880s, after the Metropolitan extension through Neasden, saw no significant change in the railway installations of Willesden, nor did the 1890s apart from matters of detail already mentioned in passing. At the very end of the nineties, the former Manchester, Sheffield & Lincolnshire Railway, now re-named the Great Central, completed its London Extension from Annesley, north of Nottingham, to Marylebone in 1899 (for coal trains in 1898); but the approach to London was secured, as far as Canfield Place, Finchley Road, over the Metropolitan, which constructed two new tracks from Harrow southwards alongside its own for the use of Great Central trains; these were leased to the G.C. in 1906 under an agreement which provided that the Great Central should never operate passenger services between Marylebone and any point on the London side of the River Brent. (This has been relaxed only once, when during the 1939–45 war platforms on the Marylebone line were put up at Neasden station in case of need to interchange there because of air raid damage to either system, and they were used for two short periods in 1941.) But the Great Central established its London locomotive depot on the south side of the line at Neasden, and its employees lived in newly-built houses nearby in Gresham and Woodhayes Roads — a staff colony with its own little church. At Neasden also it built in 1899 a connecting link to the Midland’s Cricklewood and Acton line, over which much freight traffic and occasional special trains were exchanged.

The Edwardian decade saw rather more changes. The railway managements thought the time was ripe to open some more stations to hasten on the process of residential settlement, at Brondesbury Park, on the Hampstead Junction (1 June 1908), and Dollis Hill on the Metropolitan (1 October 1909). The Metropolitan electrified its line, with current supplied from an imposing generating station at Neasden. This had four large chimney stacks, a building in a vaguely castellated style of architecture, and cooling water taken from and discharged back into the River Brent. Electric traction began in the autumn of 1905, and the train services were greatly intensified. The lines became so crowded with trains that four-tracking was undertaken north of Finchley Road, where the railway emerged from tunnel, and the new fast lines, on the north side, were put into service as far as Kilburn Junction (just east of the Edgware Road crossing) on 30 November 1913, between Willesden Green and Wembley Park on 4 and 11 January 1914, and the final section, including the imposing steel girder bridge over the Edgware Road on which the name “Metropolitan Railway” and the date were (and are still) proudly displayed, on 31 May 1915.

The London & North Western had made an unsuccessful venture at the extreme south-west, in what was at the time West Twyford but later became part of Willesden. This was a single-track branch to the Park Royal exhibition site, used for passenger traffic to agricultural shows in 1903 and the following years. The station was called “Royal Show Ground Station”. About this time the North Western realised that it was failing to make the best of its suburban traffic opportunities, now that outer Middlesex was so clearly ripe for development. Yet the four tracks of its main line were heavily occupied with long-distance passenger

and freight trains; the suburban service ran at basic hourly intervals on weekdays, just as it had done since 1879. Euston therefore took a large view of its prospects and decided to construct two completely new and separate tracks for an electric local service to Watford. There were changes from the original plan of 1907, and in the result the New Line, as it was called for many years (and indeed still sometimes is), began from Chalk Farm instead of the proposed underground station at Euston; it was joined at Queen's Park by the Bakerloo Line of the London Electric Railway, extended outwards from Paddington. The former North London Railway, absorbed in all but name by the North Western in 1909, was brought into the scheme; and the West London also. In the result, the New Line was opened to passenger traffic from just north of Kensal Green tunnel — "Willesden Tunnel Mouth Junction" — as far as Harrow on 15 June 1912, worked for the time being by steam. There was a separate set of platforms for this line at Willesden Junction, known as the New Station, lying to the north of the Junction and actually in Willesden. Harlesden station was opened with this line, and so was Stonebridge Park, just across the boundary in Wembley. The first North Western electric service was operated between Willesden High Level and Earls Court over the West London Line from 1 May 1914, using trains hired from the District Railway. The North Western's own electric trains came in November — great heavy stately things, painted in chocolate and cream, open saloons with monograms of the letters "L.N.W." cut into the glass panels of the sliding doors. Some of the motors were Swiss, from Oerlikon. The Bakerloo arrived at Kilburn Park on 31 January 1915 and at Queen's Park on 11 February. Jointly-owned L.N.W.R. and L.E.R. trains, specially built to be accommodated at both low-height tube platforms and main-line-height New Line platforms, had been designed and ordered in 1914, but were not delivered till 1920. The Bakerloo service was projected forward over a fresh portion of the New Line to Willesden Junction on 10 May 1915, and Kensal Green station was opened just east of the tunnel on 1 October 1916. On the same date the services between Broad Street, Willesden Junction, Kew Bridge and Richmond were electrified. The New Line through to Watford was electrically worked from 16 April 1917, and from this date cars intended for the Central London working to Ealing Broadway were used, with false floors at the passenger vestibules to compromise with the higher platforms. The Euston electric service began on 10 July 1922.

The new Kensal Green station was the last to be opened in the Borough of Willesden, and it brought the total number of working passenger stations to twelve, with five others just outside the boundary and providing service to some of the areas on the fringes. Developments in the railway systems since the First World War have been within the framework of the structure completed by that time. The most notable have been extension of Bakerloo Line trains over the Metropolitan Line, with new station buildings at Kilburn and at Dollis Hill, in 1939; electrification of the original London & Birmingham main line, involving complete remodelling of the extensive installations at Willesden Junction and closure of the low level (main-line) passenger station from 3 December 1962; and, still to come, linking of the former Metropolitan Line with the new Fleet Line in central London.

It may be thought that all, and more than all, has been set down here that the local historian could possibly need to know about the railways in Willesden. Yet the foregoing information relates merely to the physical structures, the framework of engineering and construction which provided certain potentialities because of what the railway could do as a carrier of people and things. The historian who wishes to understand the impact of the railway on Willesden may take this chronology of structures as his starting-point; for it is little more

than that. Chronology, someone has written, is the lifeline of history; and that is true enough. It might also be compared to a clothes-line; for it has no value or significance in itself, only when things have been hung on it. So the chronology of railway events needs to have things hung on to it before it has any real value. The historian will need to get information on the number of trains that actually served each station at the different periods; this is easy to come by, if tedious to extract. He should find out how many passengers were handled at the different stations at different times — more difficult, but no doubt to be elicited from the copious railway records that are extant. He should relate housing development both to railway facilities and to ownership of land. Here there is much to be explained about the time-lag in residential development between the first great wave between 1875 and 1905 and the second, in the 1930s. He must not ignore transport facilities on the highways, buses and trams and trolleybuses, and he must find out what can be learned as to motor-car ownership and use. On the goods side, the business of goods stations, the local coal trade, and the influence of railway siding facilities on the location of factories should provide many clues towards solving the mystery of why Willesden developed as it did.

For Willesden, like everywhere else, was and is full of mysteries. The local historian has much to challenge him in this area. Though knowledge about its railways will not by itself enable him to unlock all the mysteries, nor perhaps many of them, this knowledge can be an invaluable clue to much that went on; for the railways were probably, as at the outset *The Willesden Survey* has been quoted as saying, the most important factor in the development of Willesden as it now is.

ACKNOWLEDGMENT

This article is based on a lecture given to the Willesden Local History Society on 27 February 1975. I am particularly grateful to Mr. H. V. Borley of Ruislip for information on opening and closing dates of stations and lines.

APPENDIX

PASSENGER STATIONS IN WILLESDEN

Name	Railway	Opened	Closed	Notes
Willesden	L. & B.R.	May 1844	31 Aug. 1866	A
Brondesbury	H.J.R.	2 Jan. 1860		B
Kensal Rise	H.J.R.	1 Nov. 1861		C
Willesden Junction	L.N.W.R.	1 Sept. 1866		D
Dudding Hill	Midland	3 Aug. 1875	30 Sept. 1902	E
Harrow Road	Midland	3 Aug. 1875	30 Sept. 1902	E, F
Queen's Park	L.N.W.R.	2 June 1879		G
Kilburn	Met.	24 Nov. 1879		H
Willesden Green	Met.	24 Nov. 1879		I
Neasden	Met.	2 Aug. 1880		J
Brondesbury Park	L.N.W.R.	1 June 1908		-
Dollis Hill	Met.	1 Oct. 1909		K
Harlesden	L.N.W.R.	15 June 1912		-
Kilburn Park	L.E.R.	31 Jan. 1915		-
Kensal Green	L.N.W.R.	1 Oct. 1916		-

JUST OUTSIDE WILLESDEN; Willesden Junction main station (included above); Child's Hill (later Cricklewood), 2 May 1870; Kilburn, L.N.W.R., Dec. 1851/Jan. 1852; Stonebridge Park, L.N.W.R., 15 June 1912; Park Royal, Metropolitan District Railway, 23 June 1903; Hanger Lane, G.W.R./L.P.T.B., 30 June 1947. "West London Junction", in use for interchange passengers only, 10 June to 30 November 1844.

NOTES TO APPENDIX

- A Previously open for a short period in 1841-2.
- B Edgware Road (Kilburn), 2 Jan. 1860; Edgware Road, 1 Nov. 1865; Edgware Road & Brondesbury, 1 Jan. 1872; Brondesbury (Edgware Road), 1 Jan. 1873; Brondesbury, 1 May 1883.
- C Kensal Green & Harlesden, 1 Nov. 1861; removed to new site, 1 July 1873; Kensal Rise, 24 May 1890.
- D "New Station" platforms opened 15 June 1912; main line platforms closed 3 Dec. 1962.
- E Closed 2 July 1888; reopened 1 March 1893.
- F Harrow Road, 3 Aug. 1875; Stonebridge Park, July 1884; Harlesden, 1 Feb. 1901.
- G Queen's Park, West Kilburn, 2 June 1879; Queen's Park, Dec. 1954.
- H Kilburn & Brondesbury, 24 Nov. 1879; Kilburn, 25 Sept. 1950.
- I Willesden Green & Cricklewood from 1 June 1894 to 1938.
- J Kingsbury & Neasden, 2 Aug. 1880; Neasden & Kingsbury, 1 Jan. 1910; Neasden, 1 Jan. 1932.
- K Dollis Hill & Gladstone Park, 1931-3.

NOTES

(Original publication dates are cited; many works have been reprinted, with or without revision.)

1. GENERAL

- J. Thorne, *Handbook to the Environs of London* (1876)
- S. Potter, *The Story of Willesden* (1926)
- J. C. Morris, *The Willesden Survey 1949* (Corporation of Willesden, 1950)
- M. Robbins, *Middlesex* (1953)

2. LONDON & NORTH WESTERN RAILWAY

- G. P. Neele, *Railway Reminiscences* (1904)
- W. L. Steel, *History of the London & North Western Railway* (1914)
- D. S. Barrie, *The Euston and Crewe Companion* (1947)
- T. R. Gourvish, *Mark Huish and the London & North Western Railway* (1972)
- F. G. B. Atkinson and B. W. Adams, *London's North Western Electric* (1962)
- Articles in *Railway Magazine*: V. L. Whitechurch, "Twenty Four Hours at Willesden Junction", 1 (1897), 263; D. H. F. Meacock, "An Important London Junction", 29 (1911), 357; O. S. Nock, "Willesden, L.M.S.R.", 73 (1933), 251.
- Accident: *The Times*, 6 Dec. 1910.

3. NORTH LONDON RAILWAY

- M. Robbins, *The North London Railway* (1937)
- H. V. Borley and C. E. Lee, "The North London Line", *Railway Magazine*, 110 (1963-4), 204.

4. WEST LONDON RAILWAY

- E. T. MacDermot, *History of the Great Western Railway* (2 vols. in 3 pts., 1927/31)
- H. V. Borley and R. W. Kidner, *The West London Railway and the W.L.E.R.* (1968)

5. NORTH & SOUTH WESTERN JUNCTION RAILWAY

- G. A. Sekon, article in *Railway & Travel Monthly*, 23 (1921), 83.

6. MIDLAND RAILWAY

- F. S. Williams, *The Midland Railway* (1875)

- C. E. Stretton, *History of the Midland Railway* (1901)
- G. D. Millar, "The Cricklewood & Acton Branch of the Midland (L.M. & S.) Railway", *Railway Magazine*, 52 (1923), 452.

7. METROPOLITAN RAILWAY

- T. C. Barker and M. Robbins, *History of London Transport* (2 vols., 1963, 1974)
- C. Baker, *The Metropolitan Railway* (1951)
- C. E. Lee, *The Metropolitan Line* (1972)
- E. J. S. Gadsden, *Metropolitan Steam* (1963)
- J. G. Bruce, *Steam to Silver* (1970)

8. LONDON ELECTRIC RAILWAY

- T. C. Barker and M. Robbins, *History of London Transport*, vol. ii (1974)
- C. E. Lee, *Sixty Years of the Bakerloo* (1966)
- J. G. Bruce, *Tube Trains under London* (1968)

9. GREAT CENTRAL RAILWAY

- G. Dow, *Great Central* (3 vols., 1959, 1962, 1965)

10. RAILWAYS — GENERAL

- H. P. White, *Regional History of the Railways of Great Britain, III, Greater London* (1963)

11. HOUSING AT QUEEN'S PARK

- J. N. Tarn, *Working-Class Housing in 19th-Century Britain* (1971)
- The Builder*, 33 (1875), 933.

12. DATES OF STATION OPENING AND CLOSING AND RENAMING HAVE BEEN DERIVED FROM:

- M. D. Greville and J. Spence, *Handbook to Closed Passenger Lines of England and Wales* (1955)
- A. E. Bennett and H. V. Borley, *London Transport Railways* (a list) (1963)
- Metropolitan Railway: Record of Events* (official, unpublished)
- J. G. Spence, "Alterations to Names of Passenger Stations", *Journal of the Railway and Canal Historical Society*, 15 (1969), 29 (for L.N.W.R.), 77 (for Midland Rly.)
- and private communications from Mr. H. V. Borley.

THE BRASSES OF MIDDLESEX

PART 16: HENDON, HESTON

H. K. CAMERON, M.A., PH.D., F.S.A.

HENDON

- I. John Downner and wife Joan (effigies lost) and their son John 1515, in civil dress: on a fragment of a stone standing against the north wall in the N.E. Chapel.

What remains of this brass is on a fragment of a stone, some 4–5 in. thick, about $21\frac{1}{2}$ in. wide and 24 in. high, which is now propped up against the north wall on the north east corner of the church. Although it would appear at first sight to be the lower part of the original stone with the inscription and small figure of the son in their original positions it is evident on closer examination that a change has occurred at some time. The inscription is now at the top of the remaining stone and occupies almost its full width. It is on a rectangular plate 5 in. high and $17\frac{1}{2}$ in. wide and is in six lines of blackletter, reading:

Pray for the sowlls of Johñ Downner and Johane hys wyfe y^e
whych Johñ departyd the day of the yere of o^r
lord mcccc & x And of yowre charyte pray for the soule of
Johñ downner the sonne of the forsayd Johñ and Johane hys wyf
the whech departyd the xii day of August the yere of o^r lord
mcccc & xv on whose sowllys allmyghtry Jhū have mercy

A small civilian figure $9\frac{3}{4}$ in. high is placed centrally below this inscription, the gap between them about $3\frac{1}{2}$ in. He wears a simple cassock-like gown, fastened up to the neck and reaching almost to the ground. The sleeves are wide and reveal an under garment around the wrists.

Two earlier rubbings, one dated 1921, in the Society of Antiquaries Collection show the same disposition of pieces and a note confirms that they were on this stone fragment. Lysons recorded this brass, in his day, as on the floor near the vestry door. What has hitherto escaped notice is that there are still three lead plugs in the stone, one on either side of the base of the figure and one at the side of his head (on the dexter side). It is also possible to discern the outline of an indent in the stone. The two lower pins appear to have held a small rectangular plate such as would be used for a brief inscription. Less certain in outline is the indent above to which the third plug belongs. The lower part of John Downner's figure now covers part of the rectangular indent. Either his figure has been moved from its original position or the Downner brass was laid on a stone appropriated from some earlier monumental use.

Not much is to be deduced from what remains of this brass. The only date filled in—12th August, 1515,—was that of the son's death. It was laid presumably soon thereafter, either by one or both the parents in grief at losing their only child (no more are mentioned). It was evidently intended that the father's date of death should be recorded as gaps are left for this purpose, but these were never filled in. No such provision was made however for the mother.

In part 14 of this series a brass inscription to Thomas Downer in Harrow church was described.¹ He died in 1502. Among the beneficiaries of his will was a John Downer of Cornhill Hall, and the family were evidently farming extensively in the northern part of the county.

II. Richard Marsh, *ob.* 1615, inscription only. Mural on S. side of N. chancel wall.

On a rectangular plate 7 in. high and 26 in. wide is an English inscription in six lines of Roman capitals, reading as follows:

HERE LYETH BVRIED YE^E BODIE OF RICHARD MARSH
YEOMAN LATE OF THIS PARYSH HEE MARYED ALCE
THE DAUGHTER OF IOHN OXTON OF YE PARRYSH OF
ELSTREY BY WHOME HEE HAD TWO CHILDREN IOHN
& MARY HE DECEASED YE^E 25TH OF AVGVST A^O 1615
BEING OF THE AGES OF 37 YEARS.

The engraving is bold and clear. The last line is fitted in at the bottom of the plate in smaller letters.

Before an altar in the N.E. corner of the church lies a blue stone in which is an indent with ten dowels still in position. This corresponds exactly with this brass and its removal is confirmed by a note written by Mill Stephenson in 1921 on the rubbing in the Society of Antiquaries Collection. The brass is now highly polished, but I am happy to record that the new vicar has caused this practice to be discontinued.

Several yeomen of this name were in Hendon about this time and P.C.C. wills are extant to Randall Marshe, yeoman, of Gladwynstreate, Hendon, who died in 1608; to Isabell his widow, of Clarenstreet in Hendon, who died four years later; and to John Mershe, yeoman, of Hiwood Hill, Hendon, who died in 1609. The name of Marsh long persisted in Hendon; from 1461 to 1796.²

III. Robert Nuttinge, *ob.* 1618, inscription only; mural N. side of N. chancel arch.

On a rectangular plate 12 in. high and 20 in. wide is an inscription in ten plus eight lines of Roman capitals which reads:

HERE LYETH THE BODYE OF ROBERT NVTTINGE LATE OF HENDON IN THE COVNTIE
OF MIDDLESEX ESQUIRE IN LIFE IVST HONEST AND FAITHFVLL IN DEATH
PATIENT RELIGIOVS AND CONSTANT WHO HAD TO WIFE ELIZABETH NICHOLS
DAVGHTER TO ROBERT NICHOLS OF HENDON AFFORSAIDE BY WHOME HE HAD NO ISSVE
LIKEWISE HE HAD TO WIFE MARGERIE STAFFORTON DAUGHTER TO HVMIFREIE STAFFOR
TON OF ESTOMSTED IN THE COVNTIE OF BARKE BY WHON HE HAD 4 SONNES AND ONE
DAVGHTER THAT IS TO SAYE IOHN RICHARD ELIZABETH ROBERT AND RALPHE. ALSO
HE HAD TO WYFE IANE ATTHOWE THE WIDDOWE OF IOHN ATTHOWE OF BRISLEY IN THE
COVNTIE OF NORFFOLKE BY WHOME HE HAD 2 SONNES AND 3 DAUGHTERS THAT IS TO
SAYE ROBERT FFRANCIS EDWARD IANE AND IANE HE DEPARTED THIS LIFE 22 OF
APRIL 1618

BY POWER DEATH HATH OF EVERY MORTAIL WIGHT
HATH ROBERT NVTTINGE TO HEAVEN TOOKE HIS FLIGHT
TREW FREIND TO PEACE AN EMIMY TO STRIFE
LIVEINGE FIFTY AND SEVEN A HAPPIE LIFE
WHER OF HIS MARRIAGE YEARES WERE THIRTIE SEAVEN
HAD CHILDREN LIKE THE OLIVE PLANTS OF HEAVEN
BLESSED THE DEAD THAT IN THE LORD DO ENDE
THEY REST FROM LABOVRS AND THEIR WORKES ASSEND

The blue stone from which this brass was removed at a restoration still remains on the floor of the N.E. chapel. It measured $78\frac{1}{2}$ in. by $33\frac{1}{2}$ in. and showed two rectangular indents. One, 12 in. by 20 in., matches the inscription plate exactly; the other immediately above measures 9 in. high and 8 in. across. This was for a heraldic achievement, already lost in 1921,

but fortunately an old dabbing exists in the Society of Antiquaries collection. By the dabbing is written: "The arms of Nutshall of Lancaster are *argent a squirrel sejant gules supporting a hazel branch vert fructed or*. The same as the above for Nuttinge, the crest as the arms". The arms shown on the dabbing correspond with this description, which also is given by Burke for Nutshall.

He made his will³ on 20th April, 1618, two days before he died, and directs that his body should be buried at the discretion of his executor whom he names as his son Richard. His bequests are orderly and highly specific, detailed so that at law there should be no doubt which of his sons inherited what, and there is much repetition to ensure legal precision.

First he gives to the poor of Hendon five pounds to be distributed after his funeral (there was no doubt a good attendance).

Next he gives to the poor of Whitchurch in the county of Bucks. twenty shillings to be distributed to them within 30 days of his funeral.

He then remembers his old servant Thomas Wright, to whom he leaves "three pounds of lawfull money of England if he be living after my decease to be paid within three months by my executor".

To George Crosse his servant he leaves ten pounds if he is still serving him at his decease, to be paid within five months.

After these prime requests he leaves the rest of his estate to his family. First, to his well-beloved wife "fiftie pounds of lawfull money of England" to be paid within three months of his decease, and "the thirde part of my householde stuffe". He leaves her the house and orchard with the appurtenances which he lately purchased of John Wise for the space of three years. He requests his executor Richard Nuttinge or his assigns to pay her one hundred pounds (of lawful money of England) yearly, twenty five pounds each quarter, at the aforesaid dwelling house at Hendon "for and during her naturall life for her Joynture as it is specified in a paire of Indentures made betwixt us at our marriage in consideration of her dower and that she shall challenge noe other dower of my landes".

To his son Robert the elder and to his heires males of his body lawfully begotten (a phrase repeated every time a son's name is mentioned) he leaves the Parsonage and Rectory of Whitchurch with all the lands and all manner of tithes and profits with the appurtenances thereunto belonging which he had "lately" purchased of Sir Francis Fortescue Knt. If Robert died without male heir then it should go to his son Raphe and, failing heires male of his body lawfully begotten to Robert his youngest son etc, and failing there, to Richard Nutting etc. If that failed then to the right heires of me the Testator for ever.

And Robert the elder is to pay John Nuttinge (another son) forty pounds yearly in quarterly sums of ten pounds. Whoever inherits the Whitchurch property must continue to pay John the annual sum of forty pounds "during the naturall life of the said John Nuttinge".

Ralph is to receive one meadowe called Broad mead "by estimacon nyne acres" being "by Goldherstall upon the west and the lands nowe Thomas Tanner hinge on the southe and the lands of Allin Harrowe hinge on the northe" and our other feild called Highfeilde adjoining the said broad meade containing five acres "more or less" and four acres of woodland on the north of Highfield and ten acres of woodland to the south of Highfield. He is also to have one other wood called wildlanrowe or Redinge grove abutting on the lane called wildland on the north and the wilde on the south, and another twelve acres to the west.

If Ralph has no male heirs this property goes to Robert the younger, or Richard, or Robert senior, in that order.

Robert his youngest son is to receive "one tenement with orchard and garden and barnes, stables and other housinge. And also two meadowes or prells of land called Fosters tenement conteyning fourteen acres lying in Braynt Streat in the parish of Hendon". Failing heirs this passes to Ralph, Richard and Robert the elder in that order.

To his daughter Elizabeth Nuttinge, three hundred pounds of lawful English money to be paid within a year of his decease.

To his daughter Fraunces Nuttinge two hundred and fifty pounds (the fifty was added above the line!) to be paid within two years ("and it to be put forth to her best profit").

To his daughter Jane Nutting two hundred pounds to be paid within three years.

If any of these sisters die before marriage or reaching the age of 21 her portion to be divided among the others.

Within six months forty shillings is to be paid to John Athowe, Robert Athowe and Mary Athowe.

To his father-in-law Mr. Thomas Linford and what appears to be Mother in Mr. Linford twenty shillings apiece.

To everyone of his manservants he gives five shillings apiece and three shillings and fourpence each to the womenservants.

Lastly to his son Richard Nutting, whom he makes his sole executor, the lease and term of years yet to come of Hodford and Cowhouse⁴ with all the lands meadows fordings pastures arables woods underwood and their appurtenances in the parish of Hendon as it is set down in the lease with the dean and chapter of St. Peter of Westminster.

All other possessions to go to Richard to help him pay the debts.

This will is given at some length as an interesting example of a landed gentleman of this period, leaving considerable property to his widow and four of his sons; mentioning by name farmlands and tenements in Hendon; seeing that his servants had some recompense, particularly the two chief manservants; a small bequest to members of his wife's family by a previous marriage and even to his father-in-law. It is evident that none of the daughters was either married or of age. There is no mention of Edward who may have died young as presumably, did the first Jane. John did not receive lands, but forty pounds a year for life; he was presumably not a farmer. He had already married as a reference in Colchester shows.⁵

John Nutting gent. of Hampstead, Mddx., bachelor, aged 23 or 24, son of Robert Nuttinge of Hendon, gent. to Susan James, age 25, with the consent of her father, Robert James, gent. of Hampstead; 23 March 1610/1 at Hampstead.

OTHER BRASSES IN THE CHURCH

On the S. wall of the church:

- a. War memorial plates.
- b. On the organ console; extra stops, given in 1927 by the Government of the Straits Settlements in memory of Sir Stamford Raffles.
- c. To commemorate the restoration of the church in 1915.

On the W. wall of the church:

- d. to Robert Elworthy, 28 March 1846–1 April 1925, an elaborate triple plate, the centre one with the inscription between low relief figures of St. Michael and St. George; in the outer two incised figures of a man sowing and a woman reaping.

- e. to Thomas Samuel Dangerfield, Vicar's warden 1919-1925, b. 1874, d. December 1931.
- f. to George Sneath, churchwarden 16 years. The ancient bells in this tower were restored and rehung by his sons and daughter in the year 1924.

On the N. side of the N. chancel arch, above brass No. III:

- g. A plate commemorating Sir Thomas Stamford Raffles, F.R.S., LL.D. etc. 5 July 1781-5 July 1826, d. at Highwood, Middx. (a stone covers the burial place).

On the N. wall of the church:

- h. An interesting and well-engraved figure brass set in a round-headed recess in a stone with mouldings, the incisions filled with pigmented material. This is of a kneeling figure in clerical robes and commemorates the Rev. Newton Mant, vicar. Below is a rectangular plate, $8\frac{1}{2}$ in. by $18\frac{1}{2}$ in. on which is engraved in black letter the following inscription:

To the glory of God and in affectionate remembrance of
Newton Mant M.A. vicar of this Parish from MDCCCLxxxix
to MDCCCvii He was afterwards Rector of Cossington
Leicestershire where he died and was buried in May
mdcccxi His many friends in Hendon have placed this
memorial in this Church which he did much to beautify
in grateful recollection of his xv years faithful and devoted
ministry A man well beloved.

- j. to Margaret Mant wife of Rev. Newton Mant and fourth daughter of the Rt. Hon. Beresford Hope and Lady Mildred Hope, died in 1900; figure of St. Margaret above.
- k. to James Henry Richardson 1835-1900 with figure of St. Barnabas above inscription; similar style to j.
- l. to Ernest, son of William Lawrence Bevir of Cirencester, ob. 2 July 1914; also to Raymond his second son, killed in the battle of the Somme, 1916.
- m. to Leonard Harben, 1851-1927; also Charlotte Mary, his wife, 1853-1932.
- n. At the side of the new communion rails to the Lady Chapel a plate commemorating their installation in memory of Thomas William Hawes, churchwarden and governor of St. Mary's Schools from 1926 to 1954.

BRASSES FORMERLY IN THE CHURCH

Weever⁶ gives the following abbreviated inscriptions:

"Hic iacet Johannes de Brent armiger . . . obiit . . .

An. Dom. 1467.

Hic iacet Thomas Jacob et Johanna uxor eius, qui
quidem Tho. ob. 1441 et Johanna. . . 1400.

Here lyeth John Downner and Joan his wyf. Whos
souls Iesu pardon . . . 1515.

Hic iacet Petrus Goldesbrough civis et Aurifaber
London qui obiit 1422

Sancti Petre Pastor pro me precor esto rogator"

Lysons⁷ one hundred and fifty years or so later mentions:

'On the floor (nave?) are brass plates in memory of John atte Hevyn, 1416; Peter Goldesburgh, citizen and goldsmith, 1422; and John Birt, 1467.

No trace remains of any of these brasses, but an indent of an early fifteenth century brass survived until 1954, one of the loveliest of its kind and in good and clear condition. A civilian

and a lady kneel opposite one another at the foot of a stem carrying a canopied tabernacle in which was seated the Virgin and child (probably). The foot of the stem was stepped and below this and the two figures was a rectangular inscription plate.

Imprecatory scrolls rise from each of the two figures. The stone measured about 9 ft. by 4 ft. A scaled drawing from a rubbing I made in February 1943 appeared in the Portfolio of the Monumental Brass Society⁸ which is fortunate. Indents of lost brasses, if less informative than the brasses they once contained, are nevertheless highly important historical records and it is necessary that they should be preserved with care. It is particularly sad that this indent, probably the best in the county and one of the most beautiful remaining in the country, was wantonly destroyed—in part and therefore almost entirely—in a commemorative act a mere twenty years ago (see n. above) when new communion rails were grouted into stone slabs cemented over this stone, covering the bottom two to three feet including the two main figures. Even if restoration were now done it is doubtful whether the cemented stone could be removed from this monument without great damage to it. Victorian 'restorers' are often blamed for destroying our heritage, but ill-conceived practices continue to this day!

HESTON

I. Mardocheus (Mordecai) Bownell, *ob.* 1617, wife and family: brass engraved *c.* 1581.

What remains of this brass is of interesting and unusual design. In an excellent paper on Heston church⁹ a drawing by Sprague facing p. 208 shows the composition of the original, the lost parts being outlined from the indents then remaining. This very fine church was at that time already threatened—the page following Heale's article notes that "much alarm and excitement having been occasioned amongst archaeologists by the recent report of an intended destruction of Heston church . . . how much of interest will perish by these works". Fortunately no more of this brass was lost, but it was relaid in a new stone so that we are dependent on Sprague's drawing to comprehend the original.¹⁰ One piece was mislaid with another brass on the wall. A tracing of Sprague's drawing (Fig. 5) on which the shaded portions were then already missing shows this unusual composition. The kneeling figure of Mardocheus Bownell can be seen in outline on the bottom missing plate, with his hands before him joined in prayer. He is kneeling before a prie-dieu or desk. Heales says that before him is a group of five or six children, but this is not self-evident from the indent. Children are normally portrayed, when kneeling, behind the parent. There would appear to have been a rectangular inscription plate below, about 20 in. across according to Sprague's scale. We rely upon Lysons¹¹ for the name of the person commemorated by this brass so that the inscription was presumably there in his day. The drawing shows that a scroll, also missing, issued from the mouth of the figure. It is fortunate that this has since been found and is now set in the new stone as shown in (Fig. 6) from a rubbing made on 15th August, 1974. It is engraved in two lines of blackletter with a quotation, in English, from the book of the Wisdom of Solomon, often referred to simply as the book of Wisdom, one of the books of the Apocrypha which it is surprising to see in use in English at this time. The quotation, the opening words of Chapter 3, reads:

The soules of ye righteous are
in the handes of god wisd. iii.

Above this was a rectangular plate which would also have had an inscription on it and immediately above this inscription the interesting principal plate which now remains.

Rectangular, 9 in. high and 13 in. wide, this has upon it the reclining figure of Mrs. Bownell apparently fully dressed and lying in bed, her head on two pillows. The sheet is folded back and her arms are upon it with the hands joined in prayer. The bed cover is patterned with emphasis on a criss-cross band, much in the style of the chrysom robes of the child lying on top. The whole bed is shown in perspective with curtains wrapped spirally around each of the fluted columns of the four poster and carving on the head board and on the under side of the top. In the space under the cover and above the figures is engraved in blackletter the text:

My helpe commeth of the
Lorde which hath made
both heaven & yearth. ps. cxxi.

On the sinister side of this plate is a small piece just under 7 in. high on which is engraved the figure of an angel in a long gown drawn in at the waist, with bare feet and arms apart as if coming to the help of the lady, whose head she is approaching. Beneath this should be the small text plate now wrongly associated with brass no. 3 on the south wall of the church. This is 3 in. high and 7 in. wide and has upon it in blackletter:

The Angell of the Lorde
taryeth rounde aboute
them that feare hym and
delyvereth them. ps. 34.

Above the main plate is a half figure of the Almighty in the Heavens, with conventional representation of clouds from which He leans forward blessing the figure below. Below this engraving is a further text in blackletter on a plate $2\frac{7}{8}$ in. high and 10 in. wide:

Come to me all ye that travayle
and are heaveye laden, & I will
refreshe you. Matth. xi.

Sprague's drawing indicates that there was another very small plate, then already missing, immediately above that on which the lady is shown. It appears to be centrally placed on the stone and with reference to the plate above it, but not to that immediately below. In earlier centuries one might have expected the rising soul, but in the Protestant time of this brass one can but speculate on its purpose. The portrayal in this manner of women who died in child-birth is not uncommon at this period, but the overall composition of this brass is unique and it is sad that we cannot see the whole. The brass is also unusual, but not unique, in the engraving of so many texts, chosen perhaps as appropriate to a woman in travail. The quotation from the Apocrypha is particularly interesting at this time.

Mordecai Bownell was a cleric and evidently well-versed. He matriculated a pensioner from Pembroke College in Michaelmas 1568¹² and took his B.A. in 1572-3. He was vicar of Heston from 1570, succeeding his father Thomas Bownell in that office, and he remained there until 1581. He was also Rector of Cranford (1575-97), of Hanwell with Brintford (1591-96) and became Rector of Linwood in Lincolnshire in 1597. His will was proved¹³ in 1617.

The brass must have been placed in Heston church at the death of his wife Constance whose burial is recorded in the Register on 30th August, 1581. The daughter Elizabeth was baptised on 30th July, but the infant's death is not recorded.

Lysons¹⁴ writes that "on the floor are brass plates for Thomas Bownell, vicar, 1581".

Heale wrote in 1864 of a slab to the immediate west of the one now described, bearing an indent of a male figure standing sideways with an inscription formerly below of which the initial letters of each line only remain:

H..... So.....I.....day.....

In the stone is cut the inscription:

'Thomas Bownell olim hic vicari' obiit 22^o Julii 1570.
'Struxit hoc saxum Mardoche' Bownell hui' fili' ',

The Society of Antiquaries collection has a rubbing showing this indent with the very beginning of the inscription plate, 4 in. high, and the inscription in stone as given above. An earlier rubbing of the indent shows also a residual piece of the figure—the very top of his head. This collection also has a rubbing of the sinister part of an inscription, the remaining piece being about 9 in. long and the full original height of 3½ in. What is left reads:

.....interred and buried here
.....ch ded him love dread & feare
.....er Corps and bodie yet deteane
.....the heavens doth remaine

On the back of this rubbing is written:

Inscription in English verses c. 1560
mutilated: Heston Mddx.
N.C. May 22. 1862.

Mardocheus suffered a further bereavement in 1581. His brother Nicholas died and was buried at Cranford of which parish Mordecai was also rector. Nicholas was commemorated by an interesting brass, fully described in Part 5 of this series.¹⁵ From the wording of the inscription Mordecai may well have caused the monument to be placed there as well as that to his father and himself at Heston. He evidently survived all these events, and his memorial, by a further 36 years. In August 1584 the church register records the burial of a son named after him.

Heale, quoting from Newcourt's Repertorium, describes how in 1580 one Richard North obtained presentation of the living of Heston from the Crown, it being suggested that the living was void by lapse, Bownell holding also the vicarage of Cranford without dispensation. Litigation ensued which went ultimately in favour of Bownell, but not until North had held the living for ten years. Bownell was reinstituted vicar in September 1591, but resigned in the following March. In his last years he moved away from the district to a living in Lincolnshire and it is in that diocese that his will was registered in 1617. The following extract is copied from "Lincolnshire Wills, 1600–1617" by the Rev. Canon A. R. Maddison (Vol. 2, p. 156; Lincoln 1888).

"No. 152 Memorandum. That on Saturday the seconde day of Auguste AD1617 Mardocheas Bownell Clerke Person of Linwood in the Countye of Lincoln being of perfecte minde and memorie did make and declare his last will nuncupative in maner or to effecte followinge, viz., He did will that William Hanserde of Biskarthorpe esquire should administer of all his goodes and pay his debtes and dispose of the Remainder (yf any were) to the use of his wife and his children by her, and for his children by his former wife he had provided soe for them, that he meante they should not deale any further in his goodes. In the presence of William Underwood, gent., Mrs Anne Deane, doctor Ogle, goodwife Hardwicke, Edward Hardwicke, and others."

Probate was granted on 22nd November, 1617.

Though not of proven connection one Richard Bownell is recorded in Colchester's London Marriage Licenses as marrying Dorcas Baylye daughter of — Baylye of co. Lincoln, husbandman at her parish church of St. Andrew Holborn on 21 September, 1583.

- II. Richard Amondesham, M.A., Rector of Cranford, *ob.* 1612; inscription and heraldic shield only, mural, S. wall of chancel.

On a rectangular plate, 8 in. high and 20 in. wide is the following inscription in eleven lines of Roman capitals:

HERE LYETH RICHARD AMONDESHAM OTHERWISE AWNSHAM THE
YOUNGEST SONNE OF WILLIAM AMONDESHAM ESQ: BORNE AT HEASTON
BROUGHT VP AT EATON & THE KINGS COLLEDGE IN CAMBRIDGE, PARSON
THE SPACE OF · 9 · YEARES OF CRAYNFORD, WHO DIED YE FIRST OF MAY. 1612
QVOD ES, FVI VT SVM, ERIS
HODIE MIHI, CRAS TIBI

I AM SVRE MY REDEMER LIVETH AND HE SHALL STAND YE LAST ONE YE
EARTH AND THOUGH AFTER MY SKIN WORMES DESTROY THIS BODIE
YET SHALL I SEE GOD IN MY FLESH WHOM I MY SELFE SHALL SEE & MY
EYES SHALL BEHOULD AND NONE OTHER FOR ME · JOB : 19 25 26 27.
THEREFORE FARE WELL TILL I SEE YOV AGAYNE

On a separate plate 6½ in. high and 5½ in. wide, fixed immediately beneath the inscription plate, at the middle and contiguous with it is a shield of arms bearing *ermine on a canton a fleur de lys*. The outline of the shield of usual shape is engraved on this rectangular plate.

This memorial does not appear to have suffered movement at the mid-nineteenth century alterations that so changed the church. It remains on the S. chancel wall where it was when Lysons wrote his accounts of the church.

The first unusual feature of this inscription is that, at a time when names were variously and sometimes carelessly spelt, there are two specific and alternative spellings given. What is even more striking is the similarity with an inscription more than a hundred years earlier to another member of his family whose brass is at Ealing (and was described in Part 6 of this series.¹⁶ This was to Richard Amondesham "otherwise called Awnsham", a mercer and merchant of the staple of Calais. Other spellings of the name appear in the heralds' visitations and in the records of Cambridge alumni. The pedigree of this branch of the family is most inadequately described in visitations of 1572 and 1593 as recorded by Richard Mundy,¹⁷ although the arms of Agmondisham are confined as *Ermine, on a canton sable a fleur-de-lys or*.

The family of Agmondisham was perhaps better known or established in Surrey, from the reign of Henry III.¹⁸ They held property near Leatherhead and East Horsley and monuments including brasses are to be found in East Horsley and Effingham churches. The arms borne by this branch were quite different from those displayed at Heston.

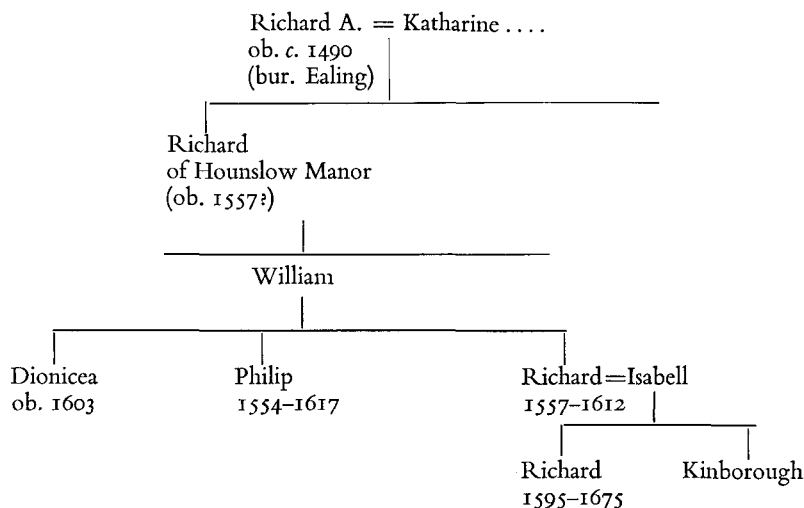
The inscription tells us that Richard was born at Heston, the youngest son of William Amondesham, and that he was educated at Eton and King's College, Cambridge. He was admitted to King's from Eton on the 28th August, 1577, at the age of 20.¹⁹

He received his B.A. in 1581–82 and M.A. in 1585. He was a Fellow of King's from 1580 to 1588 when he left Cambridge to become vicar of Buntingford. Fifteen years later, in 1603, he moved back to Middlesex as Rector of Cranford. There, after the space of nine years, as the inscription tells us, he died on the 1st of May, 1612, and was buried where he was born, in Heston.

Richard's elder brother, Philip, preceded him at Cambridge, being admitted to King's from Eton on 1st September, 1572 at the age of 18. He graduated in 1576–67, became M.A. in 1580 and was a Fellow from 1575 until 1593. He became Rector of Haddiscoe in 1592 and

died in the summer of 1617. Venn also records that Richard's son Richard graduated in 1615-16 and took his M.A. in 1619, becoming like his father before him Rector of Cranford. He moved to Hopesay, Co. Salop., in 1623 where, after an intermission in his holding from 1646 to 1660, he died in 1675.

Lysons²⁰ in his account of the Manor of Hounslow and the site of the Priory writes that after it had been annexed by Henry VIII to the honour of Hampton Court, it was leased in 1539 to Richard Awnsham Esq. for 21 years, and that in 1557 the reversion of the said premises was sold to William, Lord Windsor. This Richard could hardly have been the mercer of London whose brass at Ealing has been described; its date on stylistic evidence must be *c.* 1490. It might however be one of his sons who was able from his inheritance to become a landed proprietor. We then learn from this Heston inscription that this Richard was the youngest son of William. From the dates available we can postulate something like the following:



This bears little resemblance to the meagre details given in the Middlesex pedigrees already quoted.

Richard Amondesham's will was proved in the Consistory Court of London on 9th May, 1612²¹ by his widow and executrix Isabell. He left his manor at Ealing to his wife during widowhood, with remainder to his son Richard, but charged with an annuity of £10 p.a. to his daughter Kinborrough Awnsham for her life. He appointed as overseer of his will his "most loving brother Sr Gedion Awnsham, Knight".

The record of London Marriage Licenses shows that one "Richard Awnsham of Yeling, Middlesex clerk, bachelor, 26, son of Richard Awnsham of Cranford Middlesex clerk, deceased" married "Anne Procter of Shepperton Middlesex, spinster, 18 with consent of her father Samuel Proctor parson of Shepperton at Trinity church, Trinity Lane on 14 December, 1621".

The parish register records the burial in 1639 of Gedion Awnsham;²² also in 1603 of Dionicea Ansham virgo generosa, daughter of William Ansham; in 1627 of Robert Ansham gent and later that year of Margaret his wife.

There remains in the floor of the chancel an incised stone memorial, with inscription and shield of arms, to Nicholas Amondesham who died 1674.

pray for the soule of John Downner and Johane his wyfe v
 which John departed the day of the yere of o
 lord m cccc lxx And of noble Charle pray for the soule of
 John Downner the sonne of the forland John & Johane his wyf
 the which departed the xx day of August the yere of o lord
 m cccc lxxv whos soules allmyghty Jhu haue mercy



John and Joan Downner and son John, 1515

HENDON

HERE LYETH BVRIED Y^E BODIE OF RICHARD MARSH^{OV}
 YEOMAN LATE OF THIS PARYSH HEE MARYED ALCE
 THE DAUGHTER OF IOHN OXTON OF Y^E PARRYSH OF
 ELSTREY BY WHOME HEE HAD TWO CHILDREN IOHN
 & MARY HE DECEASED Y^E 25TH OF AVGVST A^O 1615^O
 BEING OF THEO^E AGES OF 37 YEARES

Richard Marsh, 1615

HENDON

HERE LYETH THE BODIE OF ROBERT NUTTINGE LATE OF HENDON IN THE COVNTIE
 OF MIDDLESEX ES QVIRE IN LIFE IVST HONEST AND FAITHFVL IN DEATH
 PATIENT RELIGIOVS AND CONSTANT WHO HAD TO WIFE ELIZABETH NICHOLS
 DAUGHTER TO ROBERT NICHOLS OF HENDON AFORESAID BY WHOME HE HAD NO ISSVE
 LIKEWISE HE HAD TO WIFE MARGERIE STAFFORTON DAUGHTER TO HUMFREIE STAFFOR
 TON OF ESTONSTIED IN THE COVNTIE OF BARKE BY WHON HE HAD 4 SONNES AND ONE
 DAUGHTER THAT IS TO SAYE IOHN RICHARD ELIZABETH ROBERT AND RALPH ALSO
 HE HAD TO WIFE IANE ATTHOWE THE WIDDOWE OF IOHN ATTHOWE OF BRISSELY IN THE
 COVNTIE OF NORFOLKE BY WHOME HE HAD 2 SONNES AND 3 DAUGHTERS THAT IS TO
 SAYE ROBERT FRANCIS EDWARD IANE AND LAE HE DEPARTED THIS LIFE THE 22 OF
 APRIL 1618

BY POWER DEATH HATH OF EVERY MORTAIL WIGHT
 HATH ROBERT NUTTINGE TO HEAVEN TOOK HIS FLIGHT
 TREW FREIND TO PEACE AN ENEMY TO STRIFE
 LIVEINGE FIFTY AND SEVEN A HAPPIE LIFE
 WIER OF HIS MARRIAGE YEARES WERE THIRTIE SEVEN
 HAD CHILDREN LIKE THE OLIVE BRANTS OF HEAVEN
 BLESSED THE DEAD THAT IN THE LORD DO ENDE
 THEY REST FROM LABOVS AND THEIR WORKES ASSEND

Robert Nuttinge, 1618

HENDON



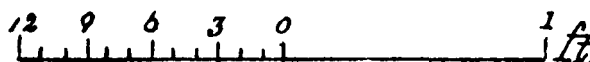
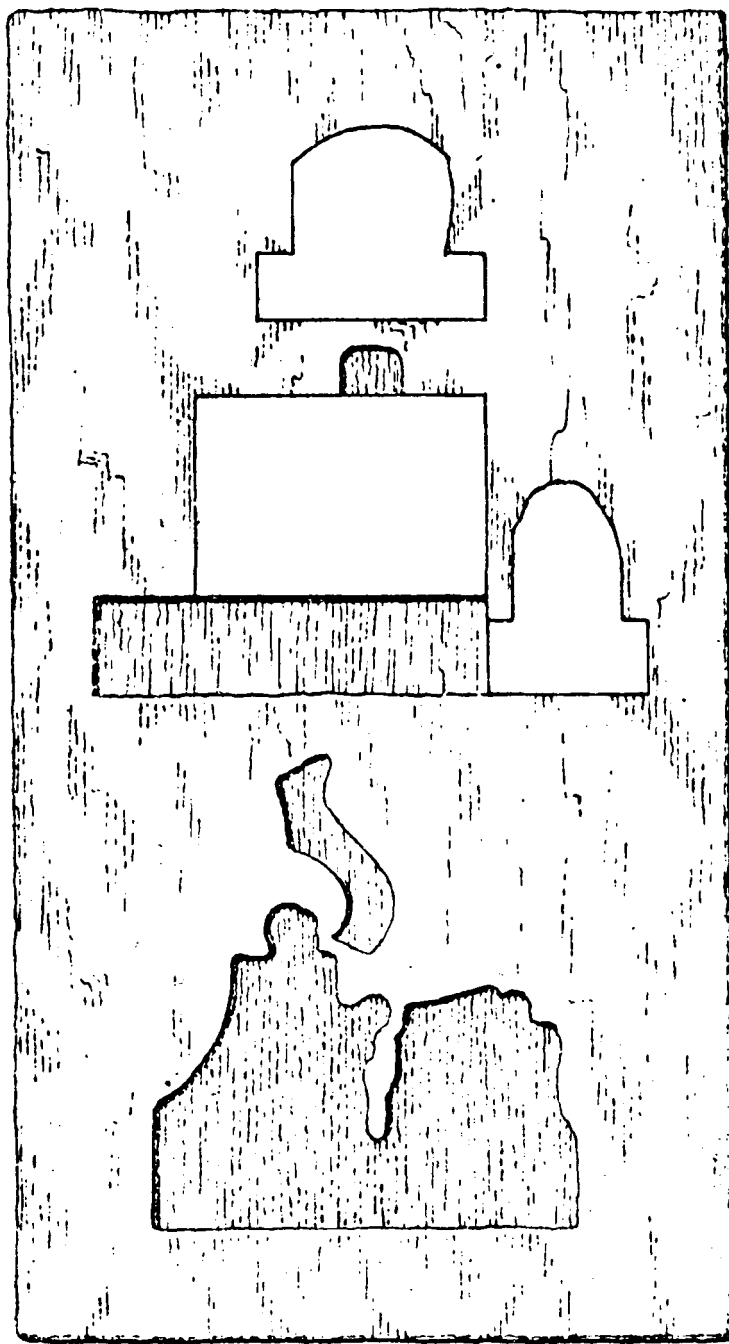
To the glory of God and in affectionate remembrance of
 Newton Mant A Vicar of this Parish from mdcclxxxix
 to mdcclvii he was afterwards Rector of Tossington
 Leicestershire where he died and was buried in May
 mdcclxi His many friends in Hendon have placed this
 memorial in this Church which he did much to beautify
 in grateful recollection of his 26 years faithful and devoted
 ministry A Man well beloved

Rev. Newton Mant, c. 1911

HENDON



Constance Bownell 1581
HESTON



Mordecai and Constance Bownell, 1581

HESTON

from a drawing by Sprague in c. 1860

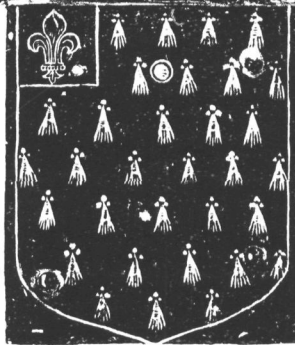
HERE LYETH RICHARD AMONDESHAM OTHERWISE AUNSHAM THE
YOUNGEST SONNE OF WILLIAM AMONDESHAM ESQ. BORNE AT HEASTON
BROUGHT VP AT EATON & THE KINGS COLLEDGE IN CAMBRIDGE, PARSON
THE SPACE OF 9 YEARES OF CRAYNFORD, WHO DIED Y FIRST OF MAY 1612

QVOD ES, FVI VT SVM, ERIS

HODIE MIHI, CRAS TIBI

I AM SVRE MY REDEMER LIVETH AND HE SHALL STAND Y LAST ONE Y
EARTH AND THOUGH AFTER MY SKIN WORMES DESTROY THIS BODIE
YET SHALL I SEE GOD IN MY FLESH WHOM I MY SELFE SHALL SEE & MY
EYES SHALL BEHOVD AND NONE OTHER FOR ME. JOB. 19 25 26 27.

THEREFORE FARE WELL TILL I SEE YOV AGAYNE



Richard Amondesham, 1612

HESTON

HEER LYES INTERED Y BODYES OF Y LADIE ANN 85
SVSAN FEILDING DAUGHTERS OF Y RIGHT HON BLE
GEORGE EARL OF DESMOND K^r OF Y BATH TEIRE
MOTHER BRIGET DAVGTER, HEIRE TO S^r MIHILL
STANHOP GRANDCHILD & HEIR TO S^r WIL. READE
ONE DIED IN MAY 1647 ATATIS SVÆ DVO FERE ANN
Y OTHER IN NOVEMBER 1647 ATIS SVÆ IO DIE
Sic Mortis est inveniit abile celum

The Angell of the Porde
forgeth rounde aboute
them that feare hym and
delivereyth them. ps. 34.

Ann and Susan Feilding, 1647

HESTON

Other features of the inscription worthy of mention are, first, the reminder that, as we are so was he, and as he is so shall we be. This expression appears frequently on monuments and many examples on brass exist. The article by Heales gives in full a number of similar inscriptions. A second feature is the credo or passage from the book of Job. The authorised English version of the Bible appeared at about the time of Richard Amondesham's death and it is interesting to compare the wording of this inscription with that in the published Bible.

III. Inscr. The Ladies Ann and Susan Feilding, *ob.* 1647; mural, South Chancel.

On a rectangular plate $5\frac{1}{8}$ in. high and 14 in. wide is the following inscription in seven lines of Roman capitals followed by one line in small letters:

HEER LYES INTERED YE BODYES OF YE LADIE ANN &
SVSAN FEILDING DAUGHTERS OF YE RIGHT HONBLE
GEORGE EARL OF DESMOND KT OF YE BATH THERE
MOTHER BRIGET DAVGTER & HEIRE TO SR MIHILL
STANHOP GRANDCHILD & HEIR TO SR WIL: READE.
ONE DIED IN MAY 1647 AETATIS SVAE DVO FERE ANN
YE OTHER IN NOVEMBER 1647 AETIS SVAE 10 - DIE
Sic Mortis est inevitabile celum.

Immediately beneath this plate is at present affixed another plate with text from the 34th Psalm. This has been wrongly associated with the Feilding brass as would be evident from examination of the engraving. The text is in black letter and this plate belongs to No. I. described above.

The parish registers show that Ann was baptized on the 22nd March, 1645 and was buried on 22nd November 1647. Susan was baptized on 16th May 1647 and was buried on the following day. Several other children of the Earl of Desmond are registered; Elizabeth, baptized 12th December 1639; as daughter of George and Bridget Feilding, Earl and Countess of Denbigh (she was later to marry Sir Edward Gage). William born 29th December 1640; George, 12th January 1641-42; Charles baptized January 1643-44; Basil, 23 August 1644; John, 12th March 1649; Bridget, 19th February 1651-52.

George Feilding was the second son of William, first Earl of Denbigh. He was created Earl of Desmond in 1622. His son William, born in 1640 succeeded him as Earl of Desmond and his Uncle as Earl of Denbigh.

The association of this family with the manor of Heston and with Osterley including a lively story of how "young Desmond" carried off his wife after his return from service overseas is given by Lysons.²³

OTHER BRASSES IN THE CHURCH

On the N. wall.

- a. 12 in. by 18 in. to Mary Anne Westbrook, b. 12th November 1819, d. 6th May 1888.
- b. 12 in. by 18 in. to Lydia Green. d. 26th January 1908 at Buenos Ayres.

On the W. wall.

- c. 7 in. by 11 in. to Richard Packman d. 1913, 29 years sexton of this parish.

On the S. wall.

- d. 12 in. by 27 in. to Ernest William Gourlay 1st Lt. the Suffolk Regiment, d. 30th November 1920, aet. 25.

As a footnote one must add that one source of information of Elizabethan date on Middlesex monuments is John Norden, a resident during his later life at Hendon. In the first (and only) part of his *Speculum Britanniae* published in 1593, and on page 25 his reference to Heston reads:

"a most fertile place of wheate yet not so much to be commended for the quantitie, as for the qualitie, for the wheat is most pure, accompted the purest in manie shires. And therefore Queene Elizabeth hath the most part of her provision from that place for manchet for her Highness owne diet, as is reported".

NOTES

¹ *Trans. L.M.A.S.* 24 (1973) p. 169.

² M. Robbins, *Middlesex* (1953) p. 288.

³ P.C.C. 51 Meade.

⁴ "The Highway called Cowhous Lane in Hendon leading from Hampsted to London" (see Brett-James, *Middlesex* (1951), p. 260).

⁵ Colchester, London Marriage Licences, arr. Foster (1887).

⁶ Weever, *Ancient Funeral Monuments* (1631), p. 532.

⁷ Lysons, *Environs of London*, 3 (1795), p. 11.

⁸ M.B.S. Portfolio 5, Plate 37.

⁹ Alfred Heales, F.S.A. "Heston Church", *Trans. L.M.A.S.* Vol. 2. (1864), pp. 204-222.

¹⁰ A rubbing in the collection of the Society of Antiquaries made in 1862 shows the indent as Sprague's drawing.

¹¹ Lysons, *op. cit.* p. 30.

¹² J. & J. A. Venn, *Alumni Cantabrigiensis*, p. 178.

¹³ C. C. Lincoln, (1617), ii, p. 258.

¹⁴ Lysons, *op. cit.* p. 30.

¹⁵ *Trans. L.M.A.S.* 18, p. 28.

¹⁶ *Ibid.* 19, p. 18.

¹⁷ *Harl. Soc.* LXV (1914) "Middlesex Pedigrees", pp. 135, 136, 184.

¹⁸ *Ibid.* XLIII (1899) "Visitations of Surrey", p. 53.

¹⁹ J. & J. A. Venn, *op. cit.* i. p. 9.

²⁰ Lysons, *op. cit.* p. 23.

²¹ P.C.C. London, 1609-21, fol. 167.

²² His wife predeceased him. Her will is to be found with sentence in P.C.C. 39 Cope in the year 1615: "Awnsham als Barrowedale, Dame Anne, wife of Sir Gedeon Awnsham, Knt., st. benett Fincke, London; Istleworth, Mddx."

²³ Lysons, *loc. cit.* pp. 25-27.

THE EDWARDIAN INVENTORIES OF MIDDLESEX

LAWRENCE S. SNELL, M.A., F.S.A., F.R.HIST.S., F.R.S.A.

Newman College, Birmingham

Continued from Volume 25 (1974) pp. 295-302.

Midd(lesex)

This is the certificate of these parrysses as hereafter followeth:

Hundred de Ossulstone

Edmonton

Enfylde

Stannm' the Lesse

hendon

hadley

Tottenham

Edgeware

harrowe

Southmynes

Pynner

Hundred de Ossulstone. The certificate and presentment of the Jury of all the goods, plate, ornamentes, Juelles Belles belonginge and appertayning to the church of Edmonton wthin the countie of Mydd' as well conteyned wthin the Inventory taken by the kinges maties Commyssioners as allso other goodes belonging to the same church at the present thirde daye of August in the vjth yere of the reigne of our Sovereigne Lorde Kyng Edward the sixth by the grace of God king of England, ffraunce and Ireland, defender of the faithe and in earth of the church of England and also of Ireland the Supreme heade.

Edmonton

Imprimis A pax and ij Cruettes of Sylver waying xj unces di

Itm A pix of sylver waying xxij unces.

Itm ij Chalysis one of them gilt waying xxxiiij ounces.

Itm A Red cope and A vestement of Red sattyn Imbrodered w^t golde and a deacon and A Subdeacon to the same of Red sylke.

Itm a yellow cope and a vestment Imbroderyd w^t cubyn golde

Itm a Whyte cope of sylke and a vestement of whyte braunched damaske¹ w^t fflowers upon it and A deacon to the same of whyte sylke.

Itm A blake velvet vestement w^t a Redd crosse of Satten of bridges²

Itm a bleue velvet vestement w^t a crosse of Redd velvet.

Itm a grene vestement w^t lyons upon yt and a redd crosse in the myddes sett w^t Images imbroderyd w^t golde And a deacon to the same of grene sylke w^t lyons upon it.

Itm a grene Satten vestiment wth a crosse of redd satten set wth l'res³ and Llanches of gold and a deacon to the same of grene braunched damaske.

Itm an owlde whyte braunched damaske vestment w^t A redd crosse of braunchyd damaske.

Itm an owlde blake velvet vestement wth A crosse of braunched damaske.

Itm an owlde redd vestement of Saye.⁴

Itm A cope of grene braunched damaske and a vestement of the same.

Itm an owlde vestement of taffyta.⁵

Itm an owlde vestement of sendall.⁶

Itm an owlde blacke vestement of satten of Bridges.

Itm an owlde whyte vestement of linnen wth a bleu crosse.

Itm iiij owlde herse clothes⁷

- Itm A border that dyd hange before the hygh Aulter of sylke imbroderyd wth golde.
 Itm fower Aulterclothes of linnen.
 Itm A vaylle⁸ of linnen clothe.
 Itm a canopye of redd satten of brydges set wth redd satten.
 Itm xiiij towelles of linnen.
 Itm iij clothes of satten of brydges, redd and whyte that hung before thalter.
 Itm ij Curtynes of Sylke redd & whyte.
 Itm a stremer of grene silke.
 Itm iij belles, the great bell doth way xviiij^c.
 Itm the second bell wayeth xvj^c.
 Itm the thurde bell wayeth xiiij^c.
 Itm the fourth bell wayeth xj^c.
 Itm stole out of the church of Edmonton at Christmas was twoo vere and one old herse clothes and twoo linnen aluter clothes.
- Enfylde.* The certificate and presentment of the Jury of all the goodes, plate, ornamentes, Juelles and Belles belongyng and app'teynyng to the churche of Enfylde wthin the countie of Mydd' as well conteyned wthin the Inventory taken by the Kynges maties Comysysoners as also other goodes belongyng to the same churche up to this present third daye of August in the vj yere of the reigne of o^r Sovereigne Lorde king Edward the vjth by the grace of god Kyng of England, ffrance and Irelande, defender of the faith and in earthe of the churche of Englande and also of Ireland the supreme head.
- Imprimis one crosse of Sylver and gilt parsell of berall conteynyng in weyght liij ounces.
 Itm in other platte as challasses, sensors, a pyxe and a paxe conteynyng in weyght viij^{ye} ounces and v – the number of chalyses and sensors uncertain.
- Itm a vestiment, deacon and subdeacon wth the cope of tynsall,⁹ coller yellow, the forest of imagery worke wroth wth the nedl wth sylk and golde.
 Itm a vestement deacon and subdeacon w^t the cope of Crymson velvet, the offerars of blewe velvet.
 Itm a vestiment of blacke velvet the deacon and subdeacon of blacke sylke wth blewe bokelyd gartyers.
 Itm a vestment of bleue damaske wrought w^t tynsall and a cope of blewe damaske the offerars redd velvet.
 Itm a cope of ^{sud} & yellow sylke full of ymygery worke of golde.
 Itm a vestment of redde sylke and one deacon w^t twoo copes of the same full of flowers.
 Itm a cope of white sylke and a vestment of the same wthout any albs, stoll or phanell.
 Itm a blewe velvet vestment.
 Itm a cope of blewe velvet.
 Itm a cope of blewe satten of Brygges w^t flowers.
 Itm a vestment of blake chamlett.¹⁰
 Itm twoo vestments of whyte bustyen.¹¹
 Itm a vestement of deacon and subdeacon of silke of dyvers colors the offerars of redde velvet.
 Itm a vestment deacon and subdeacon of sulke and dyvers colors the offeras of grene, redde and whytt velvet w^t barrys of golde.
 Itm a vestement of blewe changeable sylke the offeras of redde satten of Brydges.
 Itm a clothe to hang before the aulter of satten of Bryges, collor grene and redde.
 Itm another hanging of whyt damaske w^t v paynes of tynsell.
 Itm twoo corperass cases of tynsall and velvet.
 Itm a crosse clothe of redde sylke wth ymagery worke.
 Itm a payer of orgaynes and foure belles in the steple.
 Itm the weyght of the fyrst bell by estymacion eght hundrede, the second bell xij hundrede, the third belle xvj hundrede, the iiij^{er} xxij hundrede.
 Itm a cloke strikyng on the greate bell.
 Itm a sawnce bell of twoo hundred weyght.
 Itm vj poundes of Reyde moneye yn the churche boxe of Enfelde.

*Stann(ore) the Lesse.*¹² The Certificate and presentment of the Jury of all the goodes, plate, ornamentes, Juelles and belles belonging and app'teynyng to the church of Stann' the Lesse in the countie of Midd'x aswell conteyned wthin the Inventory taken by the kinges maties commyssey's as also other goodes belonging to the same churche at this present third day of August in the vjth yere of the reygne of o^r soverayne Lorde king Edward the vjth.

Imprimis solde by the sayd ij men A vayle clothe for Lent xij^s iiij^d
 Itm sold by them also ij sensors and a shipe of Latyne pryce ij^s iiij^d
 Which was solde for to bye a booke of Erasmus' parafrases whiche cost xj^s
 Gabreal Pawlyn gent and John Homes churchwardens in the yere of our Lorde mccccclj.
 Itm soulede by the sayd Churchwardens A crosse of copper and gylte wth stafe waying xj^{li} and a half, the
 price w^of iiij^s iiij^d.
 Solde unto Anthony Campyon a dowchman dwelling in in Saynt Martyns in London.
 Itm a pyxe clothe solde by the sayd Gabrell and John of redde damaske price iiij^s.
 Itm solde an old ragged Aulter clothe price iiij^d.
 Itm layde out and payde by the Gabrell Pawlin and John Homes to Henry Down the joynor of Edgwarre
 for setting up the pullpet in the myddes of the churche according to the kinges injuncions and mending
 the sete and the churche house viij^s iij^d.
 Itm payde for iij lode of loame carryde to Thomas Haddeson ix^d.
 Also there was stolen out of o^r churche a Byble and an aulter clothe and a towell.
 Also all the Latyn Bookes that is in the Inventories was delyverde unto the Bysshoppes officers at Westm^r
 Layd out uppon a Broken chalys waying by estymacion viij ounces di.
 Itm for a thousand of tyles and carryage viij^s
 Itm for vj Rygge tylls viij^d
 Itm half a thousand of Nayles viij^d
 Itm vj busshelles of lyme viij^d
 Itm for a lode of sand vj^d
 Itm for layng of lede thatwas blowen downe of the styple and mending
 of the battellment of the stypel iij^s iiij^d
 Itm for Byble which will cost us xiiij^s
 Itm for a table to minister the comunyon vj^s
 Itm for worke manshyppes which is under About the churche whiche wyll
 coste by estymacion to laye the stufe before rehersed vij^s
 So the whole some is xlj^s viij^d
 besydes all other charges nedfull to be donne.

To be continued

NOTES

¹ Damaske (Damask, Damascus) — stuff of rich working and elaborate design. Damascus attained a perfection in weaving them in the 12th century.

² Satin of Bruges frequently appears in 16th century inventories, this being an imitation satin with thread weft.

³ Letters — Latin or Greek letters e.g. IHS.

⁴ Say — thin woollen stuff or serge.

⁵ Taffeta — light, thin silk stuff with considerable lustre or glow.

⁶ Sendall, Sandall, Cendal — silken fabric frequently mentioned in church inventories. Chaucer's *Doctor of Physic* wore garments "lined with taffeta and sendelle".

⁷ Herse cloth — pall.

⁸ Vayle — "A corten of linnen clothe to be drawn before the Alter" (MS. Inv. Arreton). "j vaile cloth of linnen that was wont to hange before thalter in Lent" (Inv. Eltham).

⁹ Tinsel — a stuff for ornamental dresses. Cloth overlaid with thin coating of gold or silver.

¹⁰ Camlet, Camblet, Chamlett, Chamelet — stuff made with fine hair of Turkish goat.

¹¹ Bustian — a description of FUSTIAN. Fustian was known in the 12th century. A 13th century inventory of St. Paul's shows that the church had "a white chasuble of fustian". Woven in same manner as velvet, even to the shearing of its surface. Common in church robes.

¹² Stanmore the Less, Little Stanmore — now Whitchurch.

PEPYS AND THE SEA OFFICERS

RICHARD OLLARD, M.A., F.R.S.L.

An address delivered at the Pepys Commemoration Service at the Church of St. Olave, Hart Street in the City of London on 29th May 1975

Today, May 29th, would be dedicated, if his life had afforded a title to sanctity, to King Charles II. Up the river in Chelsea the pensioners of his splendid hospital are observing the feast of their founder with appropriate conviviality. It was his birthday. It was the day on which, amid scenes of delirious rejoicing, he re-entered London in 1660, the day, more than any other, to be celebrated as the anniversary of his Restoration. Pepys, as one of the most vivid reporters who have ever described London, whose Diary gives us, and for the Restoration period especially, the very form and pressure of the time, might at first sight offer rich material for an account of this historic day.

In fact, however, he was not among those taking part. He had stayed behind aboard the *Royal Charles* with his cousin and patron, Sir Edward Montagu, soon to be ennobled as Earl of Sandwich. He spent the morning writing letters, including one to find out how much his employer would have to pay for his institution as a Knight of the Most Honourable and Noble Order of the Garter, and after dinner on board went ashore with his master for a most agreeable and refreshing ride. From the top of Kingsdown cliffs they watched the fleet fire salutes in honour of the King's birthday and in the evening there was supper and music in the Great Cabin.

Pepys was coming to the end of the first of two long periods in his life spent in a warship at close quarters with the sea-officers—the second was his voyage to Tangier at the very end of the reign now opening. It is his relation to this body of men that I propose to discuss. It was a subject that, in the whole course of his life, probably claimed as much of his time and attention as any other. It was certainly one to which his contribution was of the first importance.

Sea-officers, Pepys and his contemporaries said. Naval officers, we say. Why the difference? Pepys was distinguishing between people like himself who were officers of the navy—as we would put it officials of the navy board—and people like Sir John Narbrough or Captain Wyborne—to name two of his particular friends—who occupied their business in great waters. Some of Pepys's colleagues, Penn and Batten most notably, had great experience in both spheres. Even Pepys himself could technically claim to have been a sea-officer. On the 13th of March 1669 we read in the diary:

But that which put me in good humour both at noon and night, is the fancy that I am this day made a captain of one of the King's ships, Mr. Wren having this day sent me the Duke of York's commission to be Captain of "The Jerzy" in order to my being of a Court-Marshall for examining the loss of "The Defyance" and other things; which do give me occasion of much mirth, and may be of some use to me, at least I shall get a little money by it for the time I have it; it being designed that I must really be a Captain to be able to sit in this Court.

A few days later he was not so much amused. Packing a Court-Martial with bogus Captains was a dangerous precedent. It was exactly the way to promote the favouritism and inefficiency that Pepys spent his whole life in fighting. So he privately compromised and determined that though playing his full part in the inquiry—"I did lay the law open to them and rattle the Master-Attendants out of their wits almost"—he would withdraw when the Court was reaching its conclusions.

The sea-officer proper, the naval officer of our day, cannot historically be considered merely in his professional capacity. He occupies a prominent position in English society, in our literature, in our manners and our morals. For the mid-twentieth century Noël Coward's *In Which We Serve* exemplifies the pattern: courteous, reliable, unself-seeking, balanced, competent, unemotional. We remember that King George V and King George VI were both brought up as naval officers and we observe that the present heir apparent is so serving. A century and a half ago at the high noon of the Royal Navy, Jane Austen portrays a large cast of naval officers to whose domestic virtues she pays memorable homage in the last sentence of her last novel.

The sea-officers of Pepys's day were, so to speak, the rude forefathers of these paragons. Unlike their successors in the twentieth century, or even in Nelson's day, they were contract labour, not permanent members of a profession with a recognised system of promotion and seniority. They were divided, socially and professionally, into two classes, the gentlemen and the tarpaulins. The tarpaulins, as their name suggests, were the real professional seamen who would earn their living in merchant ships when there was no billet for them in the King's. The gentlemen were scions of noble or landed families who recognised military leadership as one of the obligations of their position. One personified competence, the other the mental and social qualities of a class that had been bred to command and was likely to have had the advantage of a liberal education. It was Pepys's aim to fuse the two, an aim which by the time of Nelson and Jane Austen had, to a great extent, been achieved.

The means he employed were as various and resourceful as himself. Perhaps nowhere in his official life can we find a fuller expression of his personality. He based himself on the traditional wisdom of the apprenticeship system. The young gentleman must first and foremost serve at sea and obtain certificates from his commanding officers as to his 'sobriety, diligence, obedience to order and application to the study and practice of the art of navigation'. But literacy and cultivation of mind—those quintessentially Pepysian qualities—were given their proper importance. The young officer was required to keep a journal—not, one hastens to add, on the model of that unique and secret document on which his own fame rests. And finally, in December 1677, the Board of Admiralty agreed to the establishment of an examination, based on these requirements, for the rank of Lieutenant. This hall-mark of the modern profession was originated, designed and carried through entirely by Pepys. It is worth remembering that Examinations for admission to the Civil Service were not established for another two hundred years.

But institutional reform is only part of the story. One does not have to read far in Pepys to recognise his passionate interest in people and his skill in handling them. The stream of letters to individual officers that poured out of the Admiralty office during his two tenures of the Secretaryship taught the sea-officers what was required of them and set standards that have never since been entirely forgotten.

To take but one example. In the spring of 1675 the Captain of the *Phoenix* died while she was on the West Indies station and the Governor of the Barbados, Sir Jonathan Atkins, a personal friend of Pepys, appears to have secured the command for his son, instead of allowing the Lieutenant to succeed to the Captain's place . . . 'Justice . . . ' wrote Pepys in a letter to the *soi-disant* Captain Atkins . . . must be preserved in all matters of that kind or the whole discipline of the navy must be abandoned, in which nothing is less to be controverted than the right of a lieutenant to succeed to the command of the ship upon the death of his captain, at least until he shall come within the reach of His Majesty or the Lord High Admiral.

'As to my own particular, besides the impartiality which I pretend to govern myself by in all other cases, there will be little ground to suspect me of any other dealings in this, the lieutenant being one I never saw, much less have any personal concernment for . . . whilst on the other hand I have that especial regard to my noble friend, your father, Sir Jonathan Atkins, as would easily incline me to the giving preference to a son of his on any fair occasion. But right is right and shall never on any consideration receive interruption where I can prevent it, and least of all where the prejudice attending his Majesty from it may be of importance a thousandfold more than the benefit of the private person that is to be gratified by it'.

This is the note that the sea-officers came to recognize in their tireless correspondent. Clarity, firmness, discipline, order: the whole backed up by the timeless certainties of morality—'Right is Right'—so characteristically reinforced by an explanation of the practical disadvantages one incurs by flouting them. And underlying it all is the idea of the service as a continuous entity, to whose future as well as whose present one's actions must refer. How incalculable have been the benefits of instilling that spirit.

Pepys, like his friend and mentor in these matters, Sir William Coventry, was generally accused of favouring the tarpaulins at the expense of the gentlemen. This was politically both dangerous and unpopular, since in the early years of the reign the tarpaulins were bound to be officers who had held commissions under the Commonwealth and Protectorate, whereas the Gentlemen were almost certain to belong to Royalist families. It is true that almost all Pepys's closest friends among the sea officers were tarpaulins. Sir John Narbrough, the great admiral who was also a great navigator, and Sir John Berry, who had entered the service as a Boatswain, both came into the Royal Navy from the merchant service, without so far as is known having served under the Commonwealth. But it was their professionalism and their conspicuous attention to duty that won them Pepys's high regard, not their political or social origins. And he had no prejudice against aristocrats, provided they were ready to learn their job. On the contrary he wanted more aristocrats in the navy, not less, because he rightly saw that parliament was an essentially aristocratic and landed club—witness the amount of time it spent adding to the already excessive number of game laws—and naval affairs would never get a proper hearing there until aristocrats could be brought to contemplate a naval career. But it must be a career, and they must accept discipline. As Drake had put it 'I would have the gentleman to haul and draw with the mariner, and the mariner with the gentleman'. Young sparks who came on board for a battle as though they were going for a fortnight's grouse shooting were worse than useless.

In all this Pepys was running counter to the spirit of the society in which he lived. To obey orders was still felt to be the part of a servant, a mechanic, an artisan or a tradesman. The Pride and Honour of a gentleman were, by our standards, morbidly egocentric. In the Civil War the Royalist commanders were for ever taking the huff with each other and sometimes with difficulty restrained from fighting duels when they should have been concentrating on the enemy. Professionalism in the army and the navy had grown fast under Cromwell but Charles II was a very different man to work for. Yet the sea-officers with whom Pepys, down at Deal, passed such an agreeable day while the King was riding into London close enough to St. Olave's for us to have heard the huzzas were products of the Cromwellian system. Perhaps their professionalism contributed to his own.

JOHN STOW

HUGH TREVOR-ROPER, M.A., F.B.A., F.R.HIST.S.

A commemoration sermon delivered in the church of St. Andrew Undershaft, 30th April, 1975

John Stow, tailor of Lime-street, in this parish, who is buried in this church and whom today, 370 years after his death, we still celebrate, was the publisher and abridger of many English chronicles, the collector and preserver of many historical MSS which might otherwise have perished. In his lifetime, and immediately afterwards, his chronicles were widely read, and his collection of MSS — 'Stow's storehouse' as it was known — was often raided by his fellow antiquaries. But his lasting fame was achieved by one work first published in 1598, when he was 73 years old: his *Survey of London*. It is thanks to this work that he is still remembered, and even still read. Only a few weeks ago I read his *Survey* through. I followed him with pleasure as he 'perambulated', always on foot — he went everywhere on foot, for his means did not allow him to ride — from ward to ward, recounting the character, and the history, of every gate and bridge, every conduit and watergate, church, prison and hall of his native city. For Stow, who is the first, is also the most intimate of the 'chorographers' of London, the worthy rival of 'my loving friend Mr. Camden', the chorographer of Britain, and of 'that learned gentleman William Lambarde esquire', whose *Perambulation of Kent*, published in 1576, was the inspiration and model of his *Survey*.

Camden, Lambarde, Stow . . . these are the famous names, but we could easily extend the list. Is there not also Humfrey Llwyd's *Breviary of Britain and Description of the Isle of Man*; John Norden's *Speculum Britanniae*, his projected 'surveys', or 'chorographical descriptions', of the counties of England; and Richard Carew's *Survey of Cornwall*, and many others after them? 'Surveys', 'chorographies' and 'perambulations' were the order of the day under Queen Elizabeth and James I. So, for that matter, were that other literary genre in which Stow so successfully specialised: *Chronicles, Annals and Summaries*.

Why did Elizabethan England suddenly produce this crop of antiquaries? The answer is not far to seek. It stands out clearly in the lives of nearly all of them. In the long reign of Queen Elizabeth, Englishmen 'discovered' England — its topography, its history; and they discovered it with zeal and urgency because they had seen how, in the brief reign of her brother Edward VI, it had almost been lost.

Consider the life of John Stow. He was born in 1525, in the piping times of the young Henry VIII and Cardinal Wolsey. How stable England seemed then! How magnificently the cardinal lived, in splendour 'passing all other subjects of his time', with 400 servants daily attending in his house, besides 'his servants' servants, which were many'. But then, while Stow was still a child, came the fall of the cardinal, the rule of Thomas Cromwell, the Reformation. Stow could see, in London, the dissolution of the monastic houses: indeed, the Reformation came very close to him, for his father, Thomas Stow, a tallow-chandler, lived in Throgmorton Street, and one of his neighbours was Thomas Cromwell himself, who built himself a large house there and designed, around it, an ample pleasure garden. One morning Thomas Stow woke up to find how that design had been realised. Half his own garden had been sliced off, his summerhouse had been dug up and moved back 22 feet on rollers, and a high brick wall marked the new frontier. When he protested to the surveyor, the only answer was 'that their master Sir Thomas told them so to do'. To add insult to injury,

Stow's rent, unlike his garden, remained undiminished. 'Thus much', he comments, 'of mine own knowledge have I thought good to note, that the sudden rising of some men causeth them in some matters to forget themselves': A text which may still be applied to our modern developers.

Thomas Cromwell at least controlled his Reformation. His dissolution of monasteries was a planned, constructive nationalisation. If he dissolved abbeys, it was to found new bishoprics. He would have preserved the charitable and educational functions of the old foundations. He himself, in his grandeur, imitated the munificence of the old nobility, who 'lived together in good amity with the citizens' and 'gave great relief to the poor'. 'I myself', Stow records, 'in that declining time of charity, have oft seen, at the Lord Cromwell's gate in London, more than 200 persons served twice every day with bread, meat and drink sufficient; for he observed that ancient and charitable custom, as all prelates, noblemen or men of honour and worship, his predecessors, had done before him'.

But every revolution has its own momentum, and when the strong hand slackens or is removed, the pace quickens, even to destruction. Stow was 15 when Cromwell fell, 22 when Henry VIII died; and in the minority of Edward VI he saw Reformation turned into revolution: the uncontrolled rapacity of a new class of 'suddenly risen' men, the senseless destruction of corporate property and institutions, a breach in the orderly continuity of history. As church property was seized, church records were destroyed. Libraries, schools, charities, collapsed with the institutions which had maintained them. And the intellectuals of the time, the radical reformers who demanded a clean break with the past, rejoiced in the destruction. The learning of the past, they said was, 'duncery'; the records of the past were irrelevant to their brave new world; the monuments of the past were idols, to be smashed, or at least defaced.

It was the sight of this indiscriminate destruction that determined men of Stow's temper and Stow's generation. Outraged by such vandalism, which could only have happened in a society that had become indifferent to its own history, they resolved to remind Englishmen of their heritage and, by reminding them, to preserve it before it should be destroyed. This meant that they must also preach a doctrine. The doctrine was the continuity of English history, or English institutions, and, particularly, — since that was the battleground — of the English church. Against those terrible reformers who would destroy the whole substance of the English episcopal Church, as an inseparable branch of the corrupt, antichristian Church of Rome, they insisted that the Church of England was historically independent, that its origins preceded the corruptions of Rome, and that reformation entailed not a wholesale repudiation of the native past, but a return to it, by the removal of those spurious charms recently borrowed from the painted harlot on the Seven Hills. This had been the policy of Henry VIII: why should it not be continued under his children?

The founder of this school of conservative, protestant, English antiquaries was John Leland, the chaplain of Henry VIII, whom that king, the greatest royal patron of learning in our history, made, in 1533, his 'Antiquary Royal': the first and only holder of that post. As such, Leland was sent to search for English antiquities in the libraries of all English cathedrals, abbeys and colleges; and for the rest of the King's life he travelled all over England compiling that great register of its historical documents, his *Itinerary*. He was the first of our 'perambulators'; but his perambulations, which yielded a rich harvest for the King's library and for his own successors, soon drove him into a deep depression. He saw everywhere the destruction of

records which, single-handed, he could not stay. When the King died and the pace of destruction quickened, his mind, by overwork, became unhinged; and by 1550 he was incurably insane. Fortunately his records were preserved. They were preserved, used and transcribed by his disciples: Camden and Stow.

Throughout the middle years of the 16th century, the destruction went on. Church property was gobbled up. The Bishops' houses in London were pulled down by new owners. Statues, stained-glass windows, monuments, tombs, were smashed as 'idols'. Libraries — including Duke Humfrey's Library at Oxford — were scattered. In 1556 John Dee, philosopher, mathematician, magician and antiquary, petitioned Queen Mary to establish a royal library to save the records of the past. Failing, he set out to save them himself. By his own efforts he built up, in his house at Mortlake, the greatest private library in England: a library of books and manuscripts saved, by his exertions, from destruction.

Then, three years later, with the new reign, came a remarkable change. At the beginning of her reign, Queen Elizabeth settled the English Church on a firm basis: Protestant, episcopalian, traditional, claiming an independent pedigree from apostolic times. At the same time she put out a proclamation forbidding the defacement of monuments. Her new minister, William Cecil, afterwards Lord Burghley, and her new archbishop of Canterbury, Matthew Parker, offered themselves as patrons of historical study to vindicate the continuity of English institutions. So — surprisingly enough — did the new great favourite, Robert Dudley, earl of Leicester, the heir of the greatest and most ruthless of the Edwardian developers. Between them, these great men were the patrons of all the antiquaries of the new reign: Camden, Lambarde, Norden, Dee, Stow.

Such was the background of Stow's career as an antiquary. He was not an isolated scholar; he was one of a generation: a generation committed to the intellectual re-validation of the English heritage. All of them set out, by personal investigation, to rediscover and document that heritage. Some of them — the giants like Leland and Camden — 'perambulated' all Britain. Others, like Lambarde and Carew, concentrated on their own counties. Stow, tied by his modest trade to London, concentrated on his native city. But the inspiration of all was the same. It was not mere antiquarianism, the self-indulgence of leisured scholars. It was antiquarianism with a purpose: the restoration of England's consciousness of its own history.

Often, in his *Survey*, Stow reveals that purpose, that inspiration. For instance, there is the continuity and independence of the Church of England. Romanist writers deduced the Church of England from St. Augustine of Canterbury, the missionary of Pope Gregory the Great who, in 597 A.D., converted the Saxon king of Kent. They had the Venerable Bede for their warrant: Bede, whose *History* the Roman Catholic archdeacon, Thomas Stapleton, had translated in the reign of Mary, the Catholic queen. The Elizabethans avoided that trap: they traced the English episcopal church back to the legendary British King Lucius who was converted in apostolic times, before the usurpations of the bishop of Rome. The parish church of St. Peter upon Cornhill, says Stow, was built under King Lucius, by Thean the first archbishop of London, with 'the aid of Ciran, chief butler to King Lucius'; and Thean's successor Eluanus added a library 'and converted many of the Druids, learned men in the pagan law, to Christianity'. That put St. Augustine of Canterbury in his place. But alas, this library, which still existed in the time of Henry VIII, 'well furnished of books' and 'repaired with brick by the executors of Sir John Crosby, alderman', was now, like so many other church libraries, scattered and 'those books be gone'.

Then there were those dreadful iconoclasts, the Edwardian defacers of monuments. How Stow hated them! He is reminded of them when he comes to Ludgate, built (as he assures us) by King Lud in 66 A.D., restored in stone by King John out of the rifled fabric of rich Jewish houses, and adorned, under Henry III, with statues of King Lud and other old British kings. But 'these images of kings', Stow tells us, 'in the reign of Edward VI, had their heads smitten off and were otherwise defaced by such as judged every image to be an idol'. Happily, after being patched up under Mary, they had all been completely renewed when the gate itself was restored in 1586, and the image of H. M. Queen Elizabeth had been added on the other side. But even under Elizabeth, fanatics did not cease from troubling: witness the assaults in 1581 on the great cross at Cheapside, the last of Queen Eleanor's crosses before Charing Cross. Happily, the Queen's government stood firm, and in the 1603 edition of the *Survey* Stow was able to record that Cheapside Cross had now been restored. Restored, it was to brave the Puritans for another 45 years: then, in the course of the Revolution, they would pull it finally down.

Stow felt very strongly about this Puritan vandalism. In every city church he records the 'monuments defaced' and the 'monuments not defaced', lest the iconoclasts should escape censure, or boast of victory. In the same spirit, Camden would catalogue the monuments of Westminster Abbey, and John Weever, a generation later, would record the *Ancient Funeral Monuments* of England — just in time, before the second act of the tragedy. But Stow, in his catalogues, was careful (as he afterwards told a friend) to omit all mention of certain more recent tombs, being of men 'who have been the defacers of the monuments of others, and so worthy to be deprived of that memory whereof they have injuriously robbed others'.

For Stow was not a man who forgot or forgave. Antiquaries, after all, are not designed to forget. Their function is to remember those little details which time and human indifference would otherwise wash away. Did not one of his contemporaries, the Welsh Catholic antiquary Richard Verstegen, another *protégé* of William Cecil, — indeed, the, man who persuaded Cecil to glorify his pedigree, and change the spelling of his name, in order to claim descent from the Roman family of the Cecillii — entitle his book *A Restitution of Decayed Intelligence*? So we should not be surprised if the life of Stow, like that of many other antiquaries—like his Oxford successors Anthony Wood and Thomas Hearne—contains many a private animosity, jealously remembered. On these, in a commemorative sermon, it would be tactless to dwell. Therefore I shall pass over the running battle with his rival antiquary Richard Grafton concerning their respective *Chronicles*. But a knowledge of one quarrel is necessary if we are to extract the full relish from some of the more arcane antiquarian asides of John Stow's *Survey*.

I refer to the long feud with his younger brother Thomas: a deplorable story. John Stow did not approve of Mrs. Thomas Stow, and was imprudent enough, one day in 1568, to lament to his old mother that Thomas should be matched with an harlot. Thomas Stow extracted this detail from the garrulous old lady, and the fat was in the fire. Conciliatory embassies, gifts of strawberries, pots of cream, sociable pints of ale, all were unavailing and Thomas Stow even denounced his brother to the authorities for a grave political offence: for possessing seditious documents — in particular, a manifesto by the Duke of Alba, the Spanish governor of the Netherlands, which the government had tried to suppress. John Stow survived this denunciation and, thirty years later, in his *Survey* he had his revenge. He there had occasion to refer to William FitzOsbert, a historical character who anyway have must been distasteful to him, for he was 'a seditious tailor'. In 1196, Stow tells us, FitzOsbert, having seized, fortified and defended the steeple of Bow against the legal authority of King

Richard Coeur de Lion, was finally taken and hanged at Smithfield, 'where, because his followers came not to deliver him, he forsook Mary's son, as he termed Christ our Saviour, and called upon the Devil to help and deliver him. Such was the end of this deceiver, a man of evil life, a secret murderer, a filthy fornicator, a polluter of concubines, and amongst other his detestable facts, a false accuser of his elder brother, who had in his youth brought him up in learning and done many things for his preferment'. In the margin of the printed text Stow added 'God amend, or shortly send such an end to such false brethren'; and in the MS he went further: 'Such a brother have I, God make him penitent'.

The angularities of Stow's character are no doubt, in part, occupational — and we should remember that the occupation of an antiquary was more dangerous then than now. To possess a library of recondite books was as sinister, in an illiterate age, as to conduct scientific experiments in a pre-scientific age; and Stow, like his friend John Dee, was suspect on both counts: he was accused of alchemy as well as antiquarianism. Against such dangers a scholar needed powerful patrons. Fortunately, in Cecil and Leicester — and particularly 'my especial benefactor, archbishop Parker', who 'animated me in the course of these studies' — Stow had such patrons. They stood him in good stead in the great crisis which seems to have begun with Thomas Stow's denunciation of him in 1569. For after clearing himself before the Lord Mayor on the charge of possessing seditious documents, he found himself denounced to the Privy Council on a new charge of possessing dangerous books of superstition.

In consequence of this charge, Stow's house was searched. The Bishop of London, the sour puritan Edmund Grindal, sent his chaplains to investigate, and they duly reported a number of 'unlawful books' which plainly declared their owner 'to be a great favourer of papistry': books such as Stapleton's translation of Bede, old English chronicles 'both in parchment and in paper', books of physic, surgery and herbs, and 'old fantastical popish books printed in the old time'. Fortunately Stow survived this examination too. Bishop Grindal it was who would ultimately get the boot. The Queen and Cecil would not tolerate his encouragement of puritan 'prophesyings'.

However, thirty years later, Stow's powerful protectors were all dead, and he might well feel less secure. He might reflect on the misfortunes of John Dee, who was accused of black arts, whose wonderful library at Mortlake had been pillaged and scattered by a right-thinking mob, and who was himself in disfavour at court. In Stow's last days, even history was coming to be suspect. Queen Elizabeth, in her old age, was very sensitive about her deposed predecessor Richard II — 'I am Richard II, know ye not that?' she would say to Lambarde, — and King James, who was not at all sure that history supported his doctrine of the divine right of Kings, caused the Elizabethan Society of Antiquaries, which Archbishop Parker had initiated and of which Camden, Lambarde and Stow were members, to be wound up.

Perhaps King James was right. Certainly the opponents of Stuart claims found support in the work of the great Jacobean antiquaries, with their emphasis on the historic rights of the subject, the corrective institutions of the Middle Ages. But these were a different species of scholar from the innocent, self-taught tailor who saw London's past not as an armoury of political rights but as a colourful pageant of civic life. Stow was a nostalgic, not a political antiquary. He loved the past, perhaps more than the present, as he loved the old English poets — Lydgate, Gower, Hoccleve, and above all Chaucer, whom he edited — rather than Spenser or Shakespeare, whom he never mentions. He loved to remember the London of his earlier years, before the developers got at it, before the population explosion of the 16th century. He loved to recall old buildings that had gone, old customs that had been discontinued —

'mayings and May-games', like 'the triumphant setting up of the great shaft (a principal maypole in Cornhill, before the parish church of St. Andrew, therefore called Undershaft)', which was discontinued after the anti-immigrant riots of 'Evil May-day' in 1517. And when his own memory gave out, he would question ancient inhabitants — he found one who could remember Richard III — and make the dry bones of his old chronicles live again. His politics were simple and sound: sedition was always wrong. His references to the Peasants' Revolt of Wat Tyler, 'a presumptuous rebel', in 1381, or to the 'seditious stirs', 'the great and heinous enterprises', of the ex-Lord Mayor John Northampton in 1382, or to Jack Cade's revolt in 1449, leave no doubt about that. And then, apart from the seditious tailor of 1196, there was the seditious curate of 1549, who brings us back, once again, to Stow's own life and this, his own church.

This curate — he was Stephen, the curate of St. Catherine Cree — flourished (need one say?) in the heady days of Edward VI, and Stow remembered how, in his own presence, this radical preacher had proposed the most outrageous novelties, changing everything: the days of the week, the feasts of the Church, the names of London churches. He had even seen him, 'forsaking the pulpit of his said parish church, preach out of a high elm-tree in the midst of the churchyard' — I am glad that practice is no longer in fashion, although even the future archbishop Parker, in this same year 1549, had been forced to preach out of a tree to the Norfolk rebels — 'and then, entering the church, forsaking the altar, to have sung his high mass in English, upon a tomb of the dead, towards the North'. Finally, horror of horrors, Stow heard this dreadful curate preach at Paul's cross and declare that the great shaft of St. Andrew Undershaft 'was made an idol'; 'and I saw the effect that followed', for that very afternoon a crowd, 'after they had well dined, to make themselves strong, gathered more help, and with great labour raising the shaft from the hooks whereon it had rested two-and-thirty years' — i.e. since Evil May-day in 1517, — 'they sawed it in pieces', and every man carried away his share as a trophy. 'Thus was his idol, as he termed it, mangled and afterwards burned'.

The shocking career of Stephen, the radical curate did not end there. Soon afterwards he denounced the bailiff of Romford, 'a man very well beloved', and caused him to be unjustly hanged. Stow himself heard the condemned man's last protestation of innocence, 'for he was executed upon the pavement of my door, where I then kept house'. After which the curate, 'to avoid reproach of the people, left the city and was never heard of since'. And so may all with-it parsons pass into well-merited oblivion except in so far as their follies are held up to just execration by right-minded chroniclers, commemorated, with annual tributes of affection, in their parish churches.

OBITUARY— MISS MARJORIE BLANCHE HONEYBOURNE

With the death of Miss Marjorie Honeybourne, M.A., F.S.A., on 13 November, 1974, the London and Middlesex Archaeological Society lost a much-valued, dedicated and hard-working member, and local historians throughout the London area will be the poorer for her passing.

Coming after she had been in hospital only a few days, her death was wholly unexpected to most of her friends and colleagues, who were even unaware of her illness. Many of us heard the sad news for the first time in our President's short and moving tribute made at the opening of the Society's Local History Conference at Guildhall on 16 November, a conference which she herself had helped to organise and the ninth in a series of highly successful annual gatherings in which, as chairman of the Local History Committee, she had played a leading part for nearly ten years.

Miss Honeybourne was born in 1899 in Highgate, where she lived until, on the death of her parents, she moved to Barnet in the 1930s. She was educated at the North London Collegiate School from 1914 to 1917. In the latter year she was awarded the Clothworkers' Prize for Design and, while still at school, enlisted in the Women's Land Army. A keen hockey player, she played for her school First XI and later for her college and for the County of Middlesex. In 1921 she graduated from Bedford College, London, with an honours degree in history and an M.A. degree in 1930. Her great enthusiasm for London history may stem from her college days, for one of her tutors was Miss E. Jeffries Davis, of whose writings she later compiled a bibliography. She trained as a teacher at the London Day Training College and subsequently taught history, first at St. Mary's School, Wantage, and later at the Queen Elizabeth Grammar School for Girls, Barnet, the Bloomsbury Technical School, Queen's Square, London, and latterly at Southaw School, East Barnet, from which she retired in December 1963.

Miss Honeybourne joined the London and Middlesex Archaeological Society in 1948 and served on the Council almost continuously from 1949 until her death. It is interesting to record that in 1949 she herself made history as one of the first two women to become Council members. Miss Honeybourne was active on Council Committees, including the Editorial Advisory Committee from 1969, and in 1970 gave the address at the Stow Memorial Service, the text of her address being printed in the *London Topographical Record* (vol. XXIII). She represented our Society on a number of bodies, including the City of London Conservation Area Advisory Committee and the Standing Conference for Local History. Many, however, will consider that her outstanding contribution to the work of our Society was as chairman of the Local History Committee, an office to which she was elected at the Committee's first meeting in April 1965 and to which she gave unsparingly of her time and energy. This Committee was set up to carry on the aims and work of the Middlesex Local History Council (with which Miss Honeybourne had already closely identified herself), when it was amalgamated with the London and Middlesex Archaeological Society in 1965 on Middlesex ceasing to be a local government authority. A staunch supporter of the Middlesex Local History Council, Miss Honeybourne was one of the many who felt deeply that the identity of the ancient historic county should not be lost. She was a strong advocate for the retention of "Middlesex" in our Society's name and, as chairman of the Local History Committee, was concerned that its origin should be recognised and that it should retain some measure of the

autonomy and independence of action of its predecessor. During her chairmanship the Committee's sphere of activity gradually enlarged, drawing support also from societies south of the Thames, and the Local History Conferences, attended by ever-increasing numbers, became important annual events in the calendars of affiliated societies from all parts of Greater London. During her régime a number of projects begun by the former Middlesex Local History Council were brought to a conclusion, such as the Middlesex County Bibliography, or given fresh impetus, as with the Portrait Survey, and it was she who initiated and largely saw through the press the first publication sponsored by the Committee, John Rocque's *Topographical Map of Middlesex*, 1754.

Outside our own Society, Miss Honeybourne's interests were many and far-reaching. Hers was never a passive rôle and many societies owe much to her enthusiasm and activity. She was chairman of her local society, the Barnet and District Local History Society, which she joined in 1934, becoming a committee member in 1947 and a Vice-President in 1961. She also served on the Council of the Hammersmith Local History Group and was an active member of the Hertfordshire Local History Council. A member of the London Topographical Society since 1931, she became its honorary treasurer in 1959 and honorary editor of the *London Topographical Record* on the death of Sir Walter Godfrey in 1961. She was a Vice-President of the Historical Association and served on several of its committees, including the General Purposes, Local History, and Teaching of History Committees. She was also, from 1967 until her death, honorary editor of the *Transactions* of the Ancient Monuments Society and served on the Executive Committee of the Friends of Friendless Churches. Mr. Bulmer Thomas, in his *Times* obituary, paid tribute to her as a "doughty fighter" in the preservationist cause and revealed how she had offered (alas fruitlessly) "her life's savings to avert the demolition of the Moor Hall Chapel, Uxbridge". Members of our own Society will know, from more than one public inquiry, with what tenacity she was wont to press the case for the preservation of threatened buildings.

Generous of her time and energy in forwarding the work of so many societies, Miss Honeybourne still contrived to pursue her own scholarly research and to share her findings with others in published articles in the journals of a number of diverse learned societies, such as the *Transactions* of the Jewish Historical Society (The Pre-expulsion Cemetery of the Jews in London, vol. XX), as well as in the *London Topographical Record* and in our own *Transactions*. Her work received early recognition when she was elected a Fellow of the Society of Antiquaries in 1949. Of her many contributions to our knowledge of mediaeval London, the most outstanding, perhaps, are the reconstructed maps of William Fitzstephen's London (Historical Association) and of London under Richard II (London Topographical Society) and major articles on "Charing Cross Riverside" (LTR, vol. XXI), "The Pre-Norman Bridge of London" (in *Studies presented to Philip E. Jones*, 1969) and on "The Leper Hospitals of the London Area, with an Appendix on some other Mediaeval Hospitals of Middlesex", printed in our own *Transactions* (vol. 21, pt. 1), with the aid of a grant from the Marc Fitch Fund. At the time of her death she was working on the preparation for publication of a map of London at the time of the Reformation. She was also the author of a brief Guide to one of her beloved City Churches, the church of St. James, Garlickhithe, where she was a churchwarden between 1963 and 1966 and where a memorial service was held for her on 25 February 1975.

These will be the enduring memorials of this quiet, homely, and deeply sincere woman, beneath whose diffident, even nervous, manner lay an indomitable spirit and courage to fight and to serve to the end, even against the odds of illness and ill-health.

E.D.M.

CONTENTS

Officers	i
119th Annual Report and Accounts, 1973-1974	iii
List of Members	vii
Excavation of a Roman Palace Site in London, 1961-1972. <i>By Peter Marsden</i>	I
Excavations at the Custom House Site, City of London, 1973-Part 2. <i>By Tim Tatton-Brown</i>	103
Excavations on the Site of St. Mildred's Church, Bread Street, London, 1973-1974. <i>By Peter Marsden, Tony Dyson and Michael Rhodes</i>	171
Excavations on the Site of Arundel House in the Strand, W.C.2., in 1972. <i>By Michael J. Hammerson</i>	209
Africa House Sections, London, 1973. <i>By Des Woods, Michael Rhodes and Tony Dyson</i>	252
Excavations in Pear Wood, Brockley Hill, Middlesex, 1948-1973. <i>By Stephen A. Castle</i>	267
A Roman Signal Tower at Shadwell, E.1.—an interim note. <i>By Tony Johnson</i> ..	278
Two Bronze Age Urns from Kempton Park. <i>By Dick Sheppard</i>	281
Book Reviews	282
An Early Bronze Age Battle-Axe from Wandsworth. <i>By Patrick Loobey</i> ..	283
A Marble Statuette from Cannon Street, London. <i>By Martin Henig, M.A., D.Phil.</i>	284
Problems and Possible Conclusions related to the History and Archaeology of the Thames in the London Region. <i>By G. H. Willcox</i>	285
Mid-Georgian Nurseries of the London Region. <i>By John H. Harvey</i>	293
Railways and Willesden. <i>By Michael Robbins</i>	309
The Brasses of Middlesex—Part 16: Hendon, Heston. <i>By H. K. Cameron, M.A., Ph.D., F.S.A.</i>	319
The Edwardian Inventories of Middlesex. <i>By Lawrence S. Snell, M.A., F.S.A., F.R.Hist.S., F.R.S.A.</i>	331
Pepys and the Sea Officers. <i>By Richard Ollard, M.A., F.R.S.L.</i>	334
John Stow. <i>By Hugh Trevor-Roper, M.A., F.B.A., F.R.Hist.S.</i>	337
Obituary: <i>Miss Marjorie Blanche Honeybourne</i>	343