

Urban development in Londinium, AD 50 to 120: Leadenhall Court excavations 1984-86

Gustav Milne
Paul Wootton

THE PUBLIC buildings of Londinium have been the focus of much recent attention, with major excavations on the sites of the so-called 'Governor's Palace', the amphitheatre, the Huggin Hill bath-house and the 2nd-century basilica all within the last five years. However, the private buildings of Roman London also merit detailed study, not only in their own right, but also to determine how these humbler structures relate topographically and chronologically to their more prestigious neighbours. Such an integrated approach to the pattern of building in the Roman town provides a fuller picture of the urban development than consideration of any one building or class of buildings on its own.

Just such a study has been undertaken on the Leadenhall Court site following the 1984-6 programme of rescue excavations, which were initially designed to record the remains of the 2nd-century basilica¹ prior to the imminent redevelopment of the area. The site (code LCT84) lies on the northern side of the Victorian Leadenhall Market, bounded by Gracechurch Street, Leadenhall Street and Whittington Avenue. Nineteen trenches were excavated over an 18-month period; three were large open areas (Areas N, S and W), while the rest were smaller trenches in the basements of standing buildings in Areas D (Dominion House) and M (Metal Exchange) (Fig. 1). As a result of this intensive work, new evidence for the basilica was discovered², together with much unexpected data on the 15th-century Leadenhall Market building³. In addition, a well-preserved sequence of Roman activity was recorded beneath the basilica; this paper summarises that evidence. Twelve phases of activity and the remains of 23 buildings were identified, from which a clear picture was obtained of the growth of this central part of the town between AD 50 and 120.

AD 50-60: boundaries, quarries and cremations

The natural subsoil in the Leadenhall area is orange brickearth. Rootlets were found in it, indicating that

the area once supported a covering of turf and undergrowth. However, the turf line itself did not survive, suggesting that the area was comprehensively deturfed, in preparation for future development.

The initial signs of occupation consisted of two phases of features cut into the brickearth. The position and depth of the earlier elements in Area N suggest that a small out-building, or perhaps an animal enclosure, stood here. A series of E-W aligned ditches in Area S may represent boundary marking. The later of the two initial phases saw one ditch replaced by another 15m (50ft) long. In Area W several large irregular holes marked the position of a small group of trees which were later uprooted. A large quarry dug to obtain brickearth for building materials spanned an area at least 15m (50ft) square.

Further boundary/marker ditches were dug on a similar alignment to the ones they replaced (Fig. 2a). The quarry floor of the preceding phase was now used as a cemetery, in which several cremations urns were discovered (Fig. 3). Under Roman law, cemeteries occupied positions outside the limits of urban settlement, in contrast to medieval parish graveyards.

Subsequently, holes resulting from tree removal and other intrusive features were infilled when an extensive brickearth slab was laid to level the ground. Building 1 was then constructed along the alignment of the previous ditches, at the eastern end of the site in Area S, and was represented by a series of foundation trenches. It had at least three rooms, of which the best preserved measured 7m (N-S) × 3.5m (23ft × 11½ft). A small pit to the south of the structure may have functioned as a latrine. The cemetery and a large area to the west of the buildings were covered by an extensive domestic midden. Taken together, these features indicate a change in the function of the area, from one on the periphery of the town to one over which settlement was encroaching. These structures were demolished and a quarry was dug, presumably to extract brickearth for building.

a reassessment' *Britannia* forthcoming.

1. Peter Marsden *The Roman Forum Site in London: discoveries before 1985* (1987) HMSO.
2. Trevor Brigham 'The Basilica in Roman London, AD 100-400:

3. Mark Samuel 'The 15th-century Market at Leadenhall, London' *Antiq J* 69 (1989) 119-53.

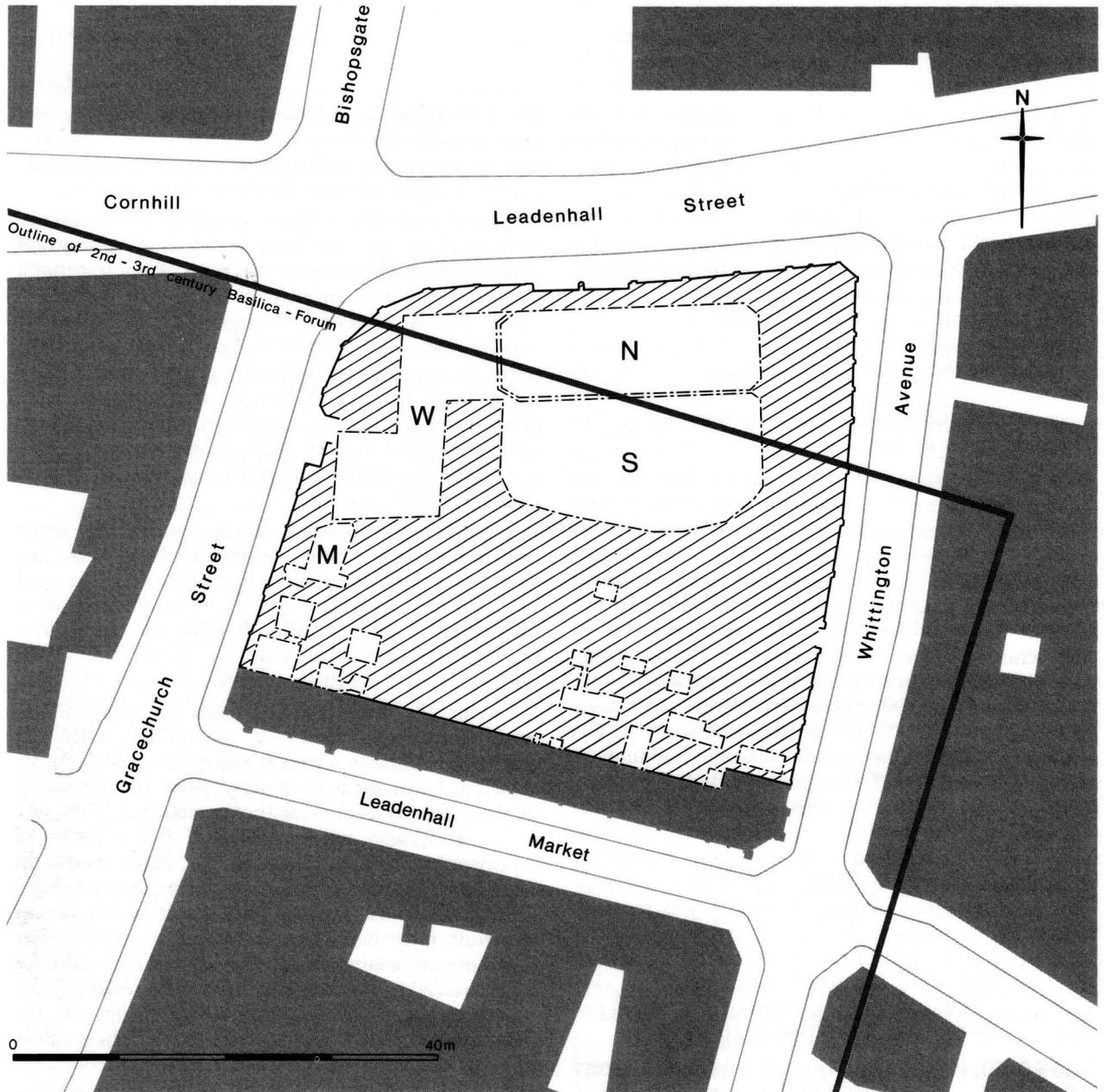


Fig. 1: plan to show the Leadenhall Court project in relation to modern streets and to outline of the north-east corner of the late 2nd-century basilica.

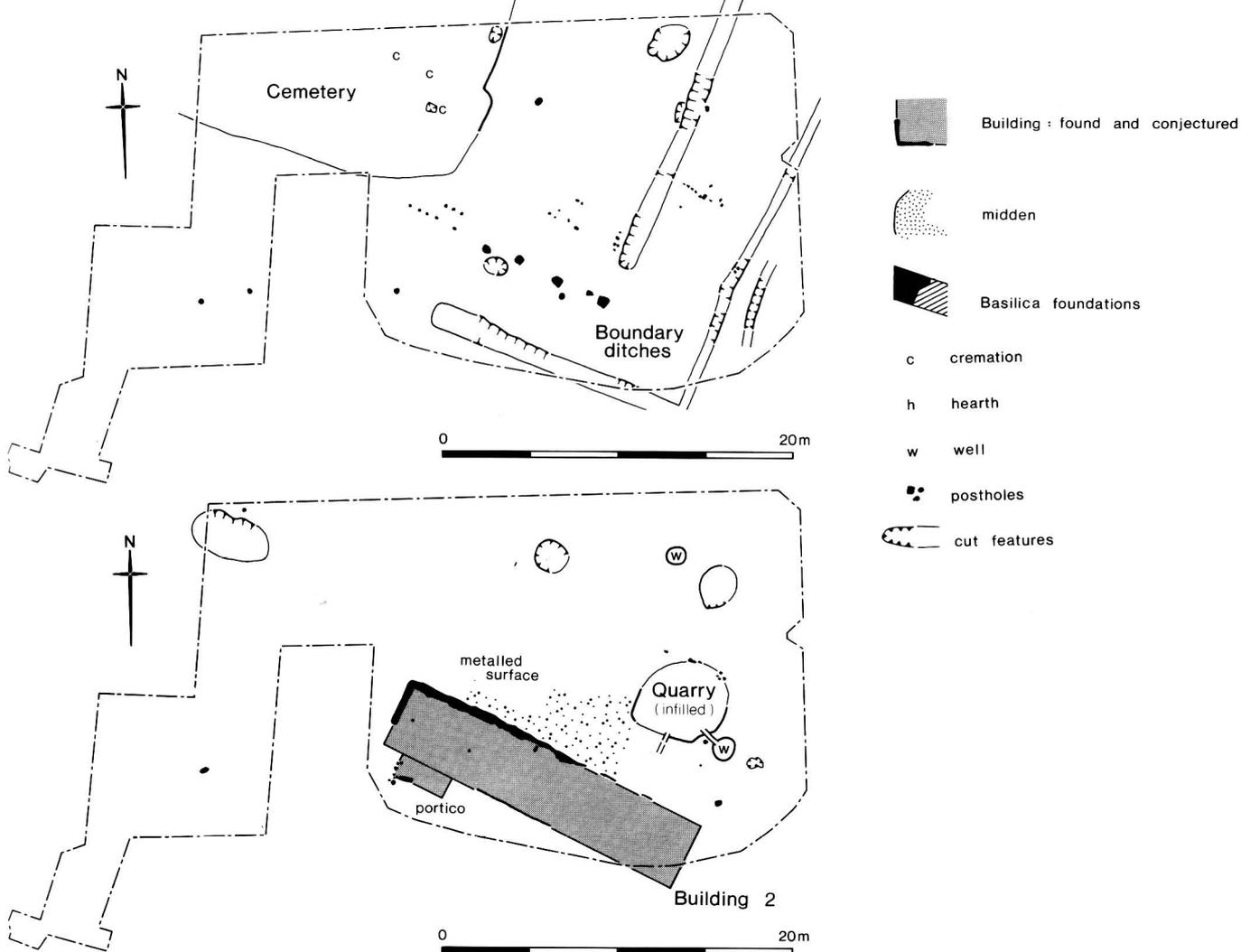


Fig. 2a: beyond the town boundary: plan of northern half of the site in the mid 1st century, with a small cremation cemetery and ditched enclosures.

Fig. 2b: ribbon development: the settlement encroaches over the former extra-mural area, with introduction of buildings fronting street to the east, beyond the limit of excavation.

Building 2 was then constructed (Fig. 2b). It was aligned E-W and was at least 18m long by 2.5m wide (60ft × 8ft). A series of post-holes on the south side of the building's west end suggests the presence of a verandah or portico marking an entrance. Two wells were dug and a metalled surface was laid to the north of the building, partially sealing the infilled quarry. The latter had been surrounded by a fence, the line of which had been defined by post-holes.

AD 80-100: the settlement expands

Building 2 was demolished, to be replaced by a formally laid-out series of buildings constructed with an extensive open area to the east, used for the dumping of waste material (Fig. 4a). This major

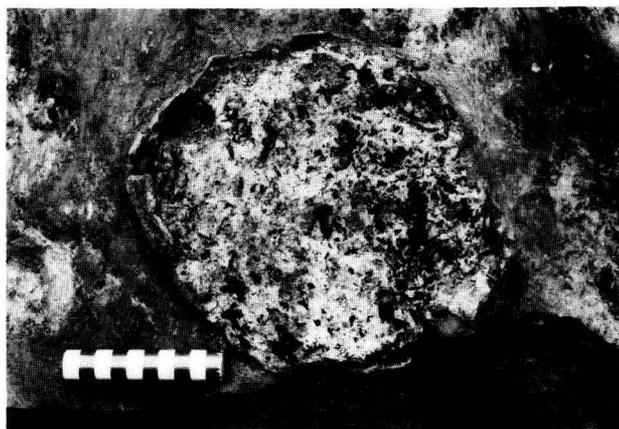


Fig. 3: mid-1st-century cremation: detailed vertical view showing material dumped in backfilled quarry (on which 10 × 10mm scale rests) into which the urn was set. Neck of pot truncated when building activity encroached on the cemetery.



Fig. 4a: AD 80: urban expansion. A new insula is laid out with buildings fronting a street just beyond the western limit of excavation. More middens and wells in backyards.

Fig. 4b: AD 90: urban occupation. Several brickearth and timber buildings shown on Fig. 4a have been repaired or replaced by the buildings shown here.

redevelopment covered an area at least 35m (E-W) × 45m (N-S) (115ft × 150ft) and included six E-W aligned ranges of buildings (Buildings 5-7, 10-11) separated by five alleyways all *c* 1m to 1.5m (3ft to 5ft) wide. The northern three ranges in Areas N and

W (Buildings 5, 10, 11) were subdivided into rooms, some with hearths and each with an entrance opening southwards onto an alley. Evidence for possible industrial activity was recorded in two of the rooms in Building 5.



Fig. 6: part of Building 10 to south (top) and Building 12, in which $5 \times 100\text{mm}$ scale rests. They are separated by a narrow gravel alley, and are cut by later pits. Outline of thin brickearth and timber walls defined rooms no more than 4m (13ft) wide. Easternmost room in Building 12 (to left of scale) later demolished and sealed beneath midden deposits (*cf* Fig. 10).

South of these ranges of buildings in Area W was Building 6, which may have measured $c 17\text{m}$ (E-W) \times 12.5m (N-S) ($56\text{ft} \times 41\text{ft}$), and was divided into rooms of varying sizes. Two of the eastern rooms were probably divided by a narrow E-W corridor. The walls incorporated air-dried brickearth bricks laid over a timber base-plate.

An alleyway 1m (3ft) wide separated Building 6 from a structure to the south, Building 7, which extended both east and west beyond the limits of Area M. A 'bee-hive' oven occupied most of the only room excavated. It was larger than many of the other hearths or ovens discovered at Leadenhall Court, which were usually of the 'key-hole' type (Fig. 5). Evidence for



Fig. 5: Building 7: hearth with tile apron (next to $5 \times 100\text{mm}$ scale) and brickearth superstructure built directly against brickearth wall footing, visible at top of photograph.

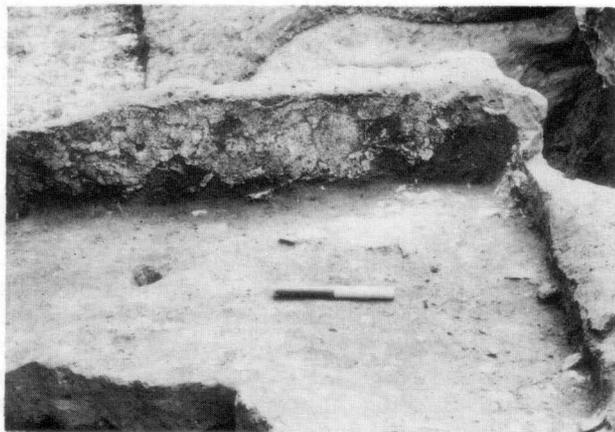


Fig. 7: Building 6: $2 \times 10\text{mm}$ scale rests in north-east corner of room. Note plaster rendering on internal face of wall footing.

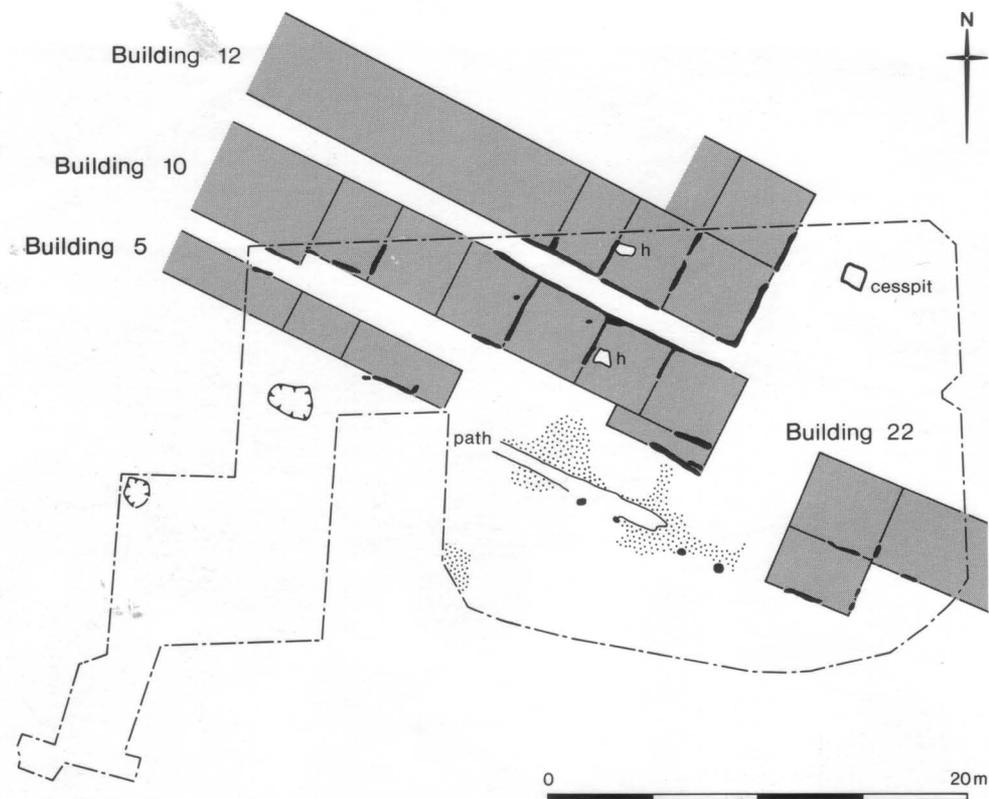


Fig. 8: AD 110-120: inner-city redevelopment (cf Fig. 4b).

a) Buildings 6, 18 and 21 demolished in advance of construction work for the enlarged basilica.

b) Buildings 5, 10, 12, 15, 20 and 23 may be temporary site huts, stores and canteens on the building site. Note mortar-mixing pit and spread of ragstone chippings associated with laying of foundations of basilica.

occupation further to the south of the site was limited to small trenches not illustrated in this article, where structures which possibly functioned as outbuildings were recorded (Buildings 8, 13, 14).

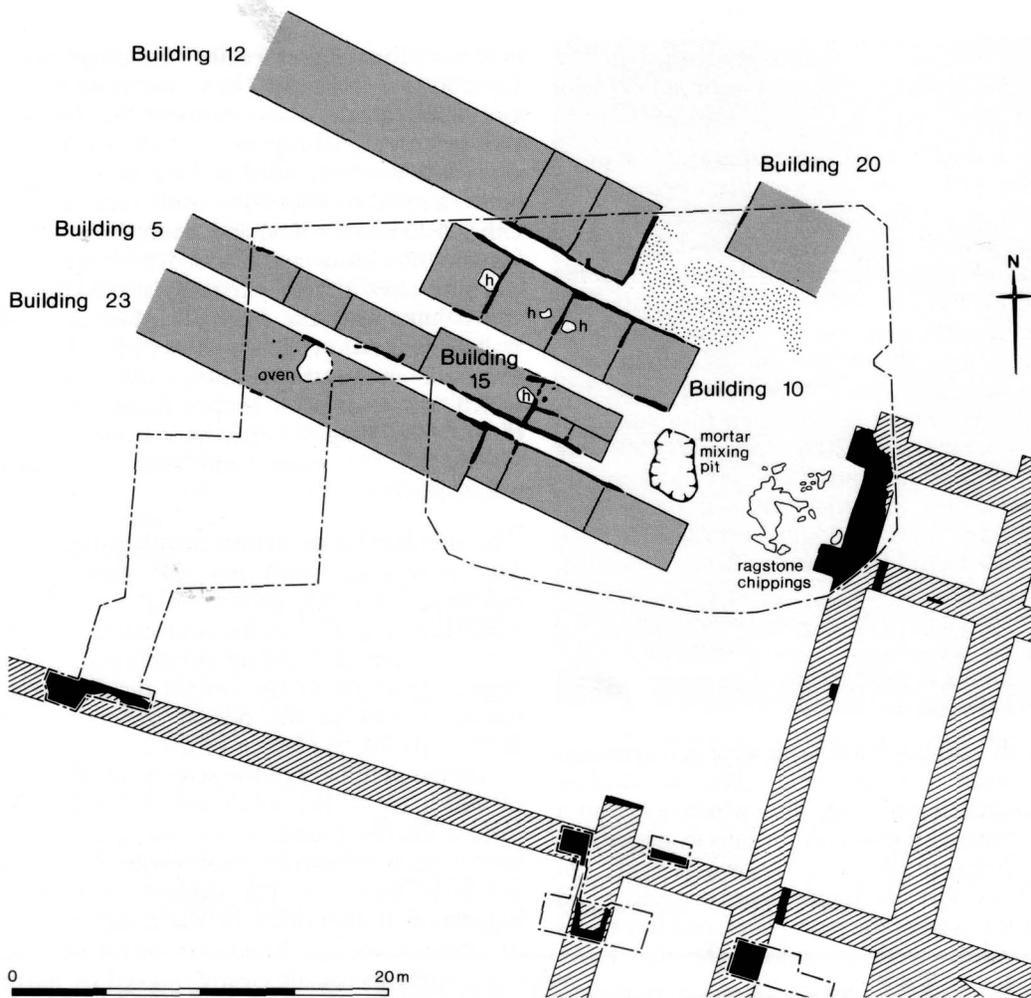
The major development of AD 80 established a formalised layout of urban properties, but one which was based on alignments set out in earlier phases. The focus of the new plan faced west, and respected the line of the principal N-S road which lies beyond the western limit of excavation, beneath present-day Gracechurch Street. This street ran from the Roman London Bridge northwards to the forum, the first phase of which was also constructed in *c* AD 80.

The second phase of development (Fig. 4b) saw the buildings of this new formalised layout repaired and in some cases rebuilt. In the north, Building 12 (Fig. 6) replaced Building 11, while in the south Building 18 replaced Building 7. The area to the east of the site remained a dumping ground to which all alleyways from the main street led. To the east of the site in Area S the small Building 21 was constructed. Since the midden-like material found inside it appeared to have accumulated shortly after its construction, this outbuilding may have functioned as an animal enclosure.

Building 6 was also substantially repaired, with an extension built onto the east end of the property. The N-S aligned corridor at the back of the property was repaired and decorated with painted wall plaster (Fig. 7). Such quality of internal decoration contrasts significantly with that recorded in all the other buildings on the site, as does that building's large and complex plan. These facts suggest that, unlike its immediate neighbours, Building 6 should not be seen as an artisan dwelling. Subsequently more repairs were undertaken when a fire in the newly-decorated north-east corner of the building damaged much of the eastern end.

AD100-110: contraction and clearance

The next major change in the development of the site saw a contraction in the area of occupation. This was marked by the demolition of Buildings 6 and 18, and Buildings 17 and 19, which lay south of the area illustrated in Fig. 8a. A large area had therefore been cleared in the south of the site, but occupation of the properties in the north continued until these structures were demolished some time after *c* AD 100. At least two interpretations may be put forward to explain the protracted contraction of the settlement. One is that the area, having become run-down, may



have been deliberately cleared as part of a 'slum-clearance' programme. Alternatively, this area may have been earmarked for the expansion of the neighbouring civic centre as early AD 85-90, and was therefore gradually deserted as families moved or were moved elsewhere.

AD110-120: civic centre redevelopment

However, occupation and activity in the north of the site did not cease immediately after the phase of contraction just described. Although Building 22 was demolished, three new structures were erected (Buildings 15, 20, 23) and Buildings 5, 10 and 12 (Fig. 9) were modified. This new layout is quite distinct from the previous development, and the occupation seems to be not only contemporary with, but also directly related to, the construction of the enlarged basilica. Since the new structures shown on Fig. 8b seem to function with the mortar-mixing pit and the area where ragstone for the basilica was prepared, they are interpreted as representing site huts, canteens and store-rooms associated with a

major public building programme which lasted for some 20 to 30 years.

The buildings: construction techniques

Several construction techniques have been recorded from Roman London. They range from the use of masonry footings with either a masonry, tile or even a brickearth superstructure, to a variety of timber and brickearth wall types. The 23 early Roman buildings on the Leadenhall Court site were all built of the latter materials. They exhibited a variety of forms, including the single-roomed outbuilding (Building 21) only 3m x 3m (10ft x 10ft); strip buildings such as the seven-roomed Building 10, which was at least 24m (80ft) long, and Building 6, which had at least 7 rooms, an internal corridor and a verandah at the rear. Many of the buildings lasted only 5 to 10 years before being replaced, while none survived much more than 30 years, since the area was deliberately cleared by or shortly after c. AD 120. At least three different techniques of construction were represented, with some buildings incorporating walls of earth-fast posts,

others stakes and wattle, while some had a timber framework. Occasionally different techniques were found in the same building.

Earth-fast post structures such as Building 2 had posts up to 0.35m (14in) in diameter, set into packed post-holes set at *c* 1.1m (3ft 7in) centres. The wall cladding may have incorporated wattle and daub infill, or brickearth mass walling poured between shutters and allowed to dry. The stake and wattle method of construction incorporated the driving of a series of stakes directly into the ground or a shallow construction trench. The stakes varied in diameter but averaged between 80mm and 100mm (3in and 4in), and were set some 0.5m (20in) apart. Wattles were then woven around the posts to provide a sturdy frame around which wet brickearth was packed and allowed to air-dry. Some buildings (e.g. Buildings 10, 15 and 18) used mud-bricks made from brickearth, while evidence of external lime-wash rendering was recorded on Building 12. Nearly two-thirds of the 'strip-buildings' recorded were of a standard single-storey type and are thought to have been erected relatively quickly and at low cost.

Buildings with a timber framework were also common in early Roman London (Fig. 10). A shallow construction trench was dug, into which was laid a timber base-plate with mortices cut into its upper face to support vertical timber posts, known as studs. On the Leadenhall Court site, fragments of decayed wood were all that survived of the base-plates, and few traces of upright studs were recorded. (Much clearer



Fig. 9: Building 12 contracts. 5 × 100mm scale lies within easternmost room, with footings of brickearth walls to east (top) and south (right). Note hearth, and tiles marking position of cupboard to west, next to threshold opening onto narrow alley cut by later pits. North wall of Building 10 visible to south. Midden deposits dumped against east wall of Building 12 seal remains of the east room shown on Fig. 9.

evidence for timber-framed buildings in Roman London has recently been identified by Damian Goodburn on the Cannon Street Station site, where well-preserved base-plates, studs, wall-plates and tie-beams were recorded re-used as foundation piles below a masonry wall.) The infill material was usually either a form of wattle and daub, or mudbricks laid between the studs and bonded with wet brickearth. In some cases a further coating of brickearth or lime was painted onto the external surface of the finished wall for protection against the weather. In contrast to the stake and wattle buildings just discussed, walls which incorporated a timber framework – such as those of Building 6 – may have stood to a height of 2m (6½ft) or more, and may even have been two-storied.

The mechanics of urban development

This provisional study has also shed light on the mechanics of urban growth in Roman London. In particular, it highlights the over-riding importance of centrally-planned building programmes (rather than organic growth) to the overall development of the town, at least in the period under consideration. Before AD 70, the layout of the area indicates that it lay on the periphery of the settlement, the main focus of which lay to the south and along the river. The earliest ditches found on the site, together with the small cemetery beyond them, probably represent the northern limits of the original settlement. This suggestion is supported by the conspicuous absence of evidence for the Boudiccan revolt of AD 60, an event which is usually clearly marked by burnt debris on sites within areas of intensive contemporary settlement.

The later buildings therefore seem to indicate suburban development spreading out over an area previously occupied by woods and fields. The years between AD 80 and 100 mark a period of far more intensive occupation on the Leadenhall Court site, with developments aligned on and coinciding with the construction of the earliest basilica and forum complex: those buildings lay just south of the excavation area. The layout of the insula examined in the recent excavations is therefore seen as part of a comprehensive plan for this part of the town, a scheme which incorporated both public and private buildings. However, although constructed at one and the same time, the individual properties within the insula were developed quite separately thereafter.

The clear signature of a central planning authority is obviously discernable both in the initial establishment of the insula in *c* AD 80, and in the drastic replanning of the whole area in *c* AD 100. By contrast, the unco-ordinated nature of the building developments

within the insula reflect the income and interests of the owners and occupiers of the individual properties. Although the construction of these buildings was contemporary with that of the first phase of the basilica and forum complex, the form and modest status of most of these brickearth buildings seem somewhat inappropriate for what could be seen as a prime urban location in the insula adjacent to the basilica itself. It is perhaps not surprising that these strip buildings were destined to be so unceremoniously cleared when preparations were made for an even more prestigious civic centre in AD 100. What seems certain is that Londinium's growth was controlled by major development plans, designed by an authority with extensive powers and considerable resources: such at least is the evidence from the excavations considered here.

Acknowledgements

The Leadenhall Court archaeological project was generously funded by Legal and General Assurance Company, with additional welcome support from HBMC and from the City of London Archaeological Trust. The hard work of the professional DUA team is gratefully acknowledged, as is that provided by many loyal members of CoLAS, and other volunteers. This article is based on the archive reports prepared for the project written by the authors and by Trevor Brigham (Area S), Gary Brown (Area W) and by Chrissie Milne. The photographs were taken by Jon Bailey and Jan Scrivener, and the artwork was



Fig. 10: Building 6: 2 × 10mm scale rests in one of the rooms defined by slots in which decayed traces of squared timber base-plates were recorded.

produced by Susan Banks from phase plans compiled by Chrissie Milne. The dating evidence used here was primarily based on provisional information from Jo Groves and Barbara Davies.

Excavations & Post-Excavation Work

City, by Museum of London, Department of Urban Archaeology. A series of long term excavations. Enquiries to DUA, Museum of London, London Wall, EC2Y 5HN (071-600 3699).

Croydon & District, processing and cataloguing of excavated and museum collections every Tuesday throughout the year. Archaeological reference collection of fabric types, domestic animal bones, clay tobacco pipes and glass ware also available for comparative work. Enquiries to Mrs Muriel Shaw, 28 Lismore Road, South Croydon, CR2 7QA (081-688 2720).

Greater London (except north-east and south-east London), by Museum of London, Department of Greater London Archaeology. Excavations and processing in all areas. General enquiries to DGLA, Museum of London (071-600 3699 ext. 241).

Local enquiries to:

North London: 3-7 Ray Street, London EC1R 3DJ (071-837 8363).

South-west London: St. Luke's House, Sandycombe Road, Kew, Surrey (081-940 5989).

Southwark and Lambeth: 6-8 Cole Street, London SE1 4YH (071-407 1989 or 403 2920 – office – and 928 0778/9 – finds).

West London: Town Mission Hall, Mission Square, Pottery Road, Brentford, Middlesex (081-560 3880).

Hammersmith & Fulham, by Fulham Archaeological Rescue Group. Processing of material from Fulham Palace. Tuesdays, 7.45

p.m.-10 p.m. at Fulham Palace, Bishop's Avenue, Fulham Palace Road, SW6. Contact Keith Whitehouse, 86 Clancarty Road, SW6 (071-731 4498).

Kingston, by Kingston upon Thames Archaeological Society. Rescue sites in the town centre. Enquiries to Marion Shipley, Kingston Heritage Centre, Fairfield Road, Kingston (081-546 5386).

North-east London, by Passmore Edwards Museum. Enquiries to Pat Wilkinson, Passmore Edwards Museum, Romford Road, E15 4LW (081-534 4545).

Surrey, by Surrey Archaeological Unit. Enquiries to David Bird, County Archaeological Officer, Planning Department, County Hall, Kingston, Surrey (081-541 8911).

Vauxhall Pottery, by Southwark and Lambeth Archaeological Society. Processing of excavated material continues three nights a week. Enquiries to S.L.A.S., c/o Cuming Museum, 155 Walworth Road, SE17 (071-703 3324).

The Council for British Archaeology produces the British Archaeological News (6 issues a year). It gives details of conferences, extra-mural courses, summer schools, training excavations and sites where volunteers are needed. The annual subscription of £7.50 includes postage, and should be made payable to C.B.A., 112 Kennington Road, SE11 6RE (071-582 0494).