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DUA

letter
News

ISSUE No.6

March 1989



INTRODUCTION

To save time retyping long articles submitted to the Newsletter, it would be useful to receive contributions on disc, assuming that it is in compatible format for the Excavations Office Dell computers.

Suggestions and contributions for inclusion are growing in number, as you can see from the size of this issue. A decision will probably have to be made soon on the maximum size of the Newsletter. Individual articles are already being restricted to 4-5 pages including illustrations.



"HIT ANY KEY TO CONTINUE"

NEW STAFF

The following people were appointed in February to grade 4 -
Tony Tynan
Mike Inzani

and at grade 3 -
Tom Dawson
Susan Leaver
Charles Johns
Ian Fitt
Thanuja Madanayake
Alastair Byers

Transfers from the DGLA to the DUA -
Naomi Hamilton
Jacqui Durup

The following people have been appointed as
Senior Archaeologists-
22-25 Austin Friars -
Dave Dunlop and Drew Shotliff

New Ludgate Areas -
Marc Adams and Malcolm McKenzie

41-63 Bishopsgate -
Martin Watts

Guildhall Yard chapel post-excavation -
Mark Samuel

End of February resignations -
Dave Robinson
Jeanette Holt
John Reilly
Duncan Schlee

Publication Assistant -
Craig Spence

JOB VACANCIES

DUA

Senior Archaeologist -
8 month contract for 158-164 Bishopsgate
Closing date 1pm 7th March 1989
Interviews soon after closing date to start 13th March

Senior Archaeologist -
12 month contract to write up aspects of the GPO 75 excavation
to level 3 and take part in publication aspects related to the
church of St Nicholas Shambles
Closing date Monday 6 March
Contract to start in April 1989

Several other writing jobs within the main HBMC publication programme will be available later in the year, including level 3 and level 4 work on medieval waterfront tenements, medieval waterfront structures, early medieval occupation beneath the Greyfriars' garden and Holy Trinity Priory; further details from John Schofield.

MARCH DIARY

Thursday 2 March
1.30pm Staff site visit to Dominant House

Saturday 11th March
London & Middlesex Archaeological Society 26th Annual Conference.
11am to 5.30pm - Museum of London
£2.50 Members, £3.50 Non-members.
Tickets from the DGLA office.
Programme includes recent archaeological research in the London area and new light on aspects of Roman London.

Thursday 16 March
1.30pm Staff site visit to Dominant House

Monday 20 March
Staff Forum - Nichola Johnson and Tessa Murdoch: 'Post-Mortem on the New Eighteenth Century Gallery'. 12.30pm Ed. Room C.

Thursday 30 March
1.30pm Staff site visit to Dominant House

BOOKS

The CBA Research Report No.68 'The Rebirth of Towns: AD 700-1050' is now available.

For an order of 10 copies the purchase price will be £21.75 per copy.

Contact Virginia Harris at the CBA on 582 0494

TRAINING

The training committee met on 31 January and made the following recommendations for funding from developer or HBMC funding.

1. New approaches to towns - conference at University of Birmingham:-
 - Charlotte Harding
 - Liz Shepherd
 - Craig Spence
 - Marie Nally
 - Tim Williams
 - Ken Steedman
2. Damian Goodburn fees for MPhil on medieval boat archaeology.
3. Rose Johnson - materials for conservation summer school.
4. Sue Riviere - PR course.

A second meeting is being held on 28 February to discuss applications to IFA 89.

In future all applications for training funding should where possible be submitted to me for consideration by the training committee.

I will circulate the date and the deadline for applications of the next meeting to all staff.

Susan Greenwood

FINDS DEPARTMENT

Although excavations at Thames Exchange and Whittington Avenue have now finished, the past month has been a busy one in the Finds Processing Section. Several new faces have appeared amongst us: Natalie Tobert, after a six year absence, has rejoined the DUA as Archive Supervisor; Angela Wardle is undertaking Roman Small Finds Research; and Matilda Webb is our newest Finds Assistant. Finds appraisals are currently being written for Little Britain (Victoria Cassely), 158-164 Bishopsgate and Guildhall Yard (Fiona Pitt), King Street (Ian Riddler), and Coleman Street (Bridget Brehm). Lynne Keys has just finished a report for HBMC on the Eltham Palace finds stored at South Ruislip (most of which have never been published). The material was catalogued and recommendations on conservation and research were made.

Thames Exchange has produced many very exciting finds but those among us who have a particular penchant for Anglo-Saxon material have recently been delighted with some of the small objects recovered. Among these is an equal-arm (also known as caterpillar) brooch and a fragment from a silver reliquary robed knee. This particular style of figure representation is characteristic of the so-called "Winchester Style", and is possibly tenth or eleventh century in date. A comparison with similar figures in manuscripts reveals that the figure shown is probably Christ in Majesty. The only other example of such a reliquary was found in 1976 in Winchester.

Dominant House (DMT) has produced a fragment (approx. 24cm x 22cm) of Roman inscription:

JMAX
JNIA

Among the Roman painted wall plaster recovered from the site is a fragment with BR scratched into it. One (highly placed) wag in the Section has suggested that this reveals the site of the first railway station in London. Conservation lifted a saxon or early medieval casket with bone mounts decorated with ring and dot ornament. One end is missing but some of the mounts were still in a vertical position. For the later period a complete red earthenware jug, probably fifteenth century in date, was recovered.

At Whittington Avenue twenty-three fragments of marble weighing some 20 kilos were recovered; these can be joined to reveal a flat panel containing two squares. Six fixing holes and mortar on the reverse show it was mounted on a wall. Its findspot is particularly interesting: it was found in a Roman drain quite close to a robbed-out wall of the Roman basilica.

At LYD (Cannon Street Station, south side) a solid bronze bowl handle (Roman) in the shape of a swan's head was recovered; from GAM (52 Gresham Street) came an early medieval gaming piece decorated with ring and dot ornament.

CONSERVATION DEPARTMENT

After a brief lull in on-site work, members of the Conservation Department have been out to lift things from three DUA sites in the last few weeks.

The first call came from Eldon Street, where the very degraded remains of wood coffins occurred in three Roman burials. The wood was in a very poor crumbly state, unlike truly waterlogged wood, and was barely more than a stain. However, the Roman Department Curators were keen to try to gain any possible evidence of wood-working techniques, so lifting of the better-preserved areas was attempted by Heather Berns and Helen Jones.

Back in the lab it proved next to impossible to clean off the sticky clay soil without damaging the "wood" further and no surface detail or joints could be discerned. The wood was therefore passed to the Environmental Department without further treatment for possible identification and dendro-dating.

A far more satisfactory wooden object was the post-medieval bucket/barrel base lifted by Helen Ganiaris from Pilgrims Court. This consisted of the oak base and staves (surviving to about 150mm high) and the withies binding it together. It had a tap-hole stopped with a wooden bung. A cooper making reproduction barrels for the Tudor & Stuart Department's forthcoming pewter exhibition was very interested to see this genuine example. It will be conserved by the long process of wax-impregnation and freeze-drying.

Heather Berns was in the field again to lift a fragmentary box from Dominant House. This appeared as a series of bone plaques (c.80 x 120mm) decorated with ring and dot designs, and is Roman or Saxon. Quite a large lump had to be lifted to be sure to incorporate all the assemblage plaster, polyurethane foam and casting bandages (used to make casts for broken limbs) were used to support it. The block will be x-rayed to indicate whether any metal fittings or contents survive before being carefully excavated in the laboratory.

SOME OBSERVATIONS ABOUT CONTEMPORARY MUD BRICK BUILDINGS IN SOUTHERN INDIA AND EGYPT

During my recent holiday in South India I had the opportunity to examine some mudbrick structures with earthen floors which are still being constructed and used today. I also had the chance to speak to the inhabitants. These observations I then compared with those I made some years ago in Egypt. I found whilst building techniques varied in particular details the structures still had similar characteristics because the same basic materials were being used everywhere. By looking at the super-structures and purposes of those modern buildings, I think we can usefully compare their visible foundations with the remains of similar structures found on our excavations, so enhancing our interpretations in post-excavation work.

The Material

Earth quarries can be seen everywhere along the roads in India's south, generally there are two kinds. Firstly irregularly shaped holes varying in sizes between 1 metre to 5 metres across, comparatively shallow, perhaps no more than two 'hoes' deep, about 60 cm. The depth might be dictated by the thickness of the suitable earth layer, but those holes also have the advantage of not trapping grazing animals. As the holes are left open to the weather, they become overgrown as much as the cattle and goats allow, and the edges eroded. The second quarry type is both larger and deeper, often created by taking the material out of a terraced landscape within a valley, or lake. Mudbrick factories are often found near these large quarries.

For small scale casual construction the villagers always adhere to the local materials and traditional methods. These do not require architect's drawings and planning permission as modern concrete buildings would with their different construction techniques.

Building uprights in Egypt are of timber, the same as we find here; but in southern India it is necessary to use monolithic stone posts because of the wood-eating termites whose mud ant hills can be seen everywhere in the countryside.

Indian mortar is a mixture of earth and water, where I saw it, meaning that the material is loamy enough to stick together (Fig 1). Egyptian mortar had chaff and lime mixed into the mud paste.

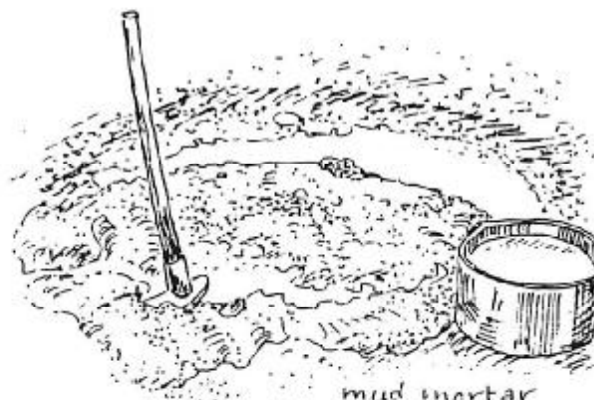
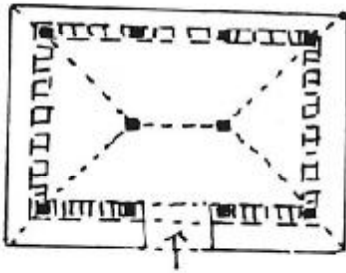
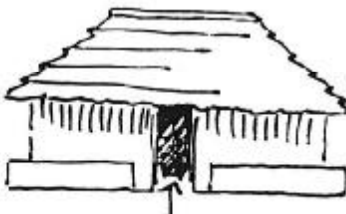


Fig. 1

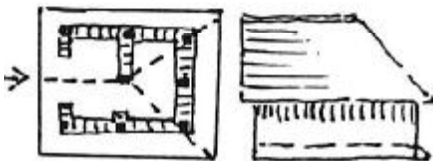
mud mortar



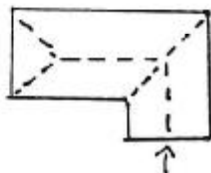
a



b



c



d



e

In the Indian villages cobbles of lime can be bought, these are ground down to powder and added to the mud mortar to make plaster. As soon as the plaster looks grey it is mixed with fresh cow dung; apparently this can break the impact of an evil spirit, but it also tempers and binds together the plaster after drying. It would be interesting to know, if the chaff in the daub we find in London is just part of straw, or whether it has passed through the stomachs of ruminants first. The alternative uses of Indian cow manure seems remarkable - it is even used to repair leaks in water pipes, I have been told.

Egyptian mud bricks are of a similar size to those found here, but in Southern India they are much larger. They are made by filling a wet metal or wooden frame with wet stiff clay paste, which is then slid out like a cake and left to dry in the shade under a roof. In some areas where the soil is very compacted sand, and sticks together naturally like soft sandstone, the blocks are cut in simple kilns, looking like little huts with openings; firewood is packed inside and out and lit. The result is a crumbly burnt brick, which is harder and more water-resistant than mudbrick, but lighter and less dense than the ones we find, a bit like our burnt daub.

The Ground Plan and the Structure of the Building

When constructing a house, it has always been necessary to level the ground, if there is a slope, and sometimes clearing a wider area as a yard. I found that both in India and Egypt, gravelling these external areas near dwellings is not common practice.

Then the upright posts are set into ground holes, the number depending on the size and shape of the house, with longest posts supporting the roof ridge and shorter ones around the sides. The next step is building the roof. This may seem odd but is necessary, because the mudbrick walls are vulnerable to the elements, not only to rain, but also they can dry out too quickly in the sun, causing the mortar and plaster to crack. One can see in the country, sometimes, houses which so far exist only of posts and roof, waiting until time and fortune allow completion. A framework of timbers on the posts can be used to support either a tiled or a thatched roof.

The Roof

The shape of the roof is dictated by the ground plan. In principle, however, the rule seems to be that the roof slopes on all four sides from a central ridge. Occasionally there are only two or three pitches creating a gable at the end (Fig 2 a-e). Or sometimes the roof slopes only to half the depth to leave more room for a door. The building may be of a simple rectangular shape or have one or several wings at right angles. The roof projects beyond the wall line at least the size of an entire tile, perhaps 30cm. The overhang is about the same on thatched roofs.

Like our mudbrick buildings, the Indian ones have no gutters and so the roof overhang protects the walls from splashing by rain water; but there are still signs of it along the lower walls. I was looking for eaves drips, but could not see any. However, my visit was several months since the last rains had fallen, and in fact no traces of water run-off was apparent anywhere on the red brickearth-type silt.

Fig. 2

Gullies are found mostly in towns.

No chimneys are to be seen on the roofs of these mudbrick structures. If there is one it is built into the wall like a window. Because of the warm climate cooking takes place mostly on verandas or outside; a similar habit may not be expected in British climate!

The Foundation of Walls

Many of the newer and better quality mudbrick houses are constructed onto a foundation of stones set in mud mortar. The squared blocks are set directly on the surface of the ground without a trench. The stones provide a stronger base at the most vulnerable point, for rain water damage and land slide (Fig.3) An alternative way of protecting the lowest part of the wall is by thickening it. This can be done in two ways, either by starting off with a double width foundation which then decreases at the outside edge until the actual wall thickness is reached, producing a 45 degree slope at the basement (Fig.2c): or, by starting with double or treble thickness of foundation which may be built up vertically to a height of about 50 cm (Fig.2b). This platform provides a useful bench around the house. It is then plastered and sometimes widened by the door way, providing more seating under cover. A verandah can also be included into the ground plan of the stone foundation; I think it would be difficult to distinguish the open part from the rooms if I were excavating the remains of these similar floors in the building.

The mudbricks of the wall will then be set in such a way that there is no sign of the posts outside. Everything is plastered over, sometimes so thinly that the shape of the bricks can still show (Fig.4), or so thickly that the type of wall material can only be guessed at by the rounded edges of the plaster by the entrance and at the windows.

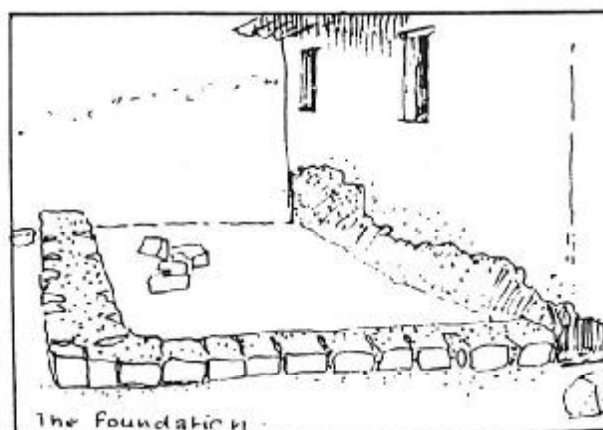


Fig. 3

Plaster repairs and decorating are done by the women, either when necessary, or just before certain religious festivities. In Tamil Nadu it is done each year prior to Pongal - harvest celebrations just like in Spanish Andalusia where every house in the village is white-washed before Easter.

The Openings

The doors and windows in mudbrick houses in India are not particularly large (Fig.4), but this may have to do with keeping out the heat and strong light. So possibly windows in houses in Britain may have been larger. But without window glass one would always have to compromise between letting the light in and keeping the cold out.

The window and door frames and lintels are made of timber planks in India and in Egypt.

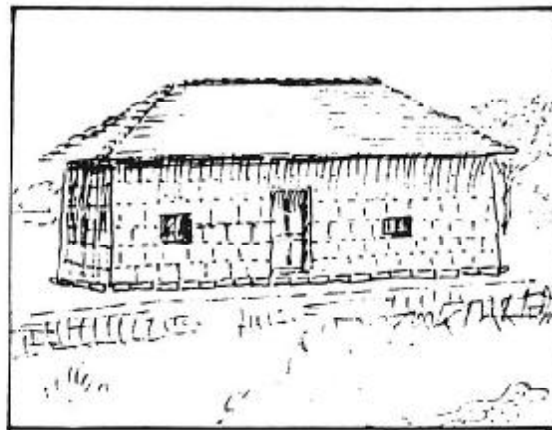


Fig. 4

Mud Floors

We stayed in a farmhouse hotel which has an earthen floored verandah and also a little mudbrick structure with the same type of floor which was used as an office. The verandah leads into the guest dining room with a tiled floor. Everybody living and working in there permanently (six persons) and the guests (eight on average for six months) would walk across parts of the verandah at least 10 times a day. The office is used constantly by one clerk and half time by the boss. In addition employees might enter for payment, queries or a chat.

Both these floors are constructed of earth, with frequent crushed brick inclusions and some lime. They are swept every day. Trampling loosens some of the floor material and is swept out onto the road; some collects around the posts of the verandah and along the perimeter walls. Clearly visible are areas of most wear: for instance on the verandah, mainly between the road and the entrance to the house, the floor is uneven, with the brick fragments protruding out. The best survival is beneath the tables. The same pattern is visible in the office, where, under the tables, the floor is very clean and in good condition, particularly since no shoes with heels are worn (one lives bare-footed or in sandals which again is similar to Roman times).

The landlord told me the verandah floor was renewed every three years, the office floor every five years. Walls last much longer, depending on their maintenance and the weather. What could be confusing to an archaeologist is that the floors are not just repaired

or a new one put on top of the old, but that they are taken out entirely. The brick fragments may be saved and mixed into a new mortar of fresh earth and lime. This procedure is necessary to retain the step up to the tile floor keeping the dust outside. In the office the door opens inwards, so dictating the height of the floor. In other old houses there is often a step high threshold between two rooms which may be the answer for keeping a door in position when the floors build up.

When we consider furnished rooms of the average citizen in former days, it is wrong to impose our own modern standards. We had the chance to visit the proudly kept home of a retired policeman who now sells soft drinks from a stall in front of his house. Our contact was his son-in-law who is a teacher. The ex-policeman lives together with wife and several of his children and grandchildren in two rooms with two verandahs. One is at the front where the family sits comfortably on mud-benches and mats to either side of the entrance. The main room, which would be spread with mattresses and cushions in the evening, is, during the day, only furnished with a sewing-machine. Adjacent is the store room containing a trunk and many large vessels for water, rice, lentils etc. which cover half the floor. Clothes hung from nails in one corner. The back verandah is open on three sides and used for cooking: here a few stones are placed around a fire with a pot placed on top. Several other vessels were scattered about with one mortarium and a large flat grinding stone completing the household contents inventory.

It would be very useful to gather more observations and start a little archive, for example in the Bridgehouse library, of photographs with explanations of still existing building traditions and living practices anywhere in the world which can be compared with the ancient ones. Being able to visualise these practices may help the flow of interpretation of the often scarce remains of mud and dirt. Additions to this subject and discussion are very welcome.

Friederike Hammer

THE ARCHAEOLOGY OF THE URBAN MONASTERY - YORK UNIVERSITY, JANUARY 1989 - A CONFERENCE REPORT

The proceedings started with an introductory lecture by Lawrence Butler, defining the monastery by its legal status and its common religious observance. Subsequently some of the avenues of approach to the subject were explored. Between Augustine and the Dissolution it was possible to note fluctuations in the rate of foundations, and their type: hospitals are a particular post-conquest feature, while Mendicants are distinctive of the period after the 13th century. Of particular interest is the study of the spatial relationships between the monastic houses and the towns in which they were located. The practical and liturgical needs of the community react with the pressures on space in an urban setting to produce a ground plan rather less predictable than might at first be thought. Equally we might consider Hospitals and Friaries both are particularly urban phenomena, and the reasons for their location in particular parts of a medieval town. Beyond the wider questions of the relationships between monastic houses and their surroundings there are questions more directly pertinent to the field workers. For example what was happening on the site before the arrival of the community?; how are the buildings arranged and what does this mean?

The rest of the conference was arranged in three broad divisions: the first, Specialist Approaches, consisted largely of various types of finds specialists talking about their favourite category of find. In addition Mick Aston and J Bond presented papers on, respectively "The Development of Charterhouses in Britain and Europe" and "Water Management at Urban Monasteries". Of these two Mick Aston cheerfully admitted that Charterhouses were the least urban monasteries as the Carthusians were a reclusive and eremitical order. Until the 14th century their houses were located in very remote, often mountainous, areas. Even after that date their foundations could at best be said to be suburban. Despite these reservations towns did have an effect on the Carthusians; the move to semi-urban locations in the 14th century coincided with (and was probably caused by) a shift in patronage from the nobility to the wealthy urban merchant class. Even though the Carthusians retained their distinctive cloister of individual cells and their buffer against the outside world in the form of an associated lay community the new 'urban' location forced the lay community into the monastic enclosure whereas it had previously been located in a grange usually at considerable remove from the monastery.

With a great deal of illustration James Bond proved that urban monasteries did indeed manage water and showed that considerable evidence for this may still survive. He did not dwell on one of the main requirements for water - fish for the strict monastic diet. Obviously an urban situation did not allow for the extensive fish ponds found elsewhere. Did urban houses expect to obtain their requirements from the two markets, did they net nearby rivers or did they rely on their granges to provide their requirements?

Steve Moorhouse of the West Yorkshire Archaeological Service gave a catalogue of the ceramic and glass finds likely to be encountered from flower pots to urinals. He noted the ability of documentary sources to shed light on the archaeological artefacts but emphasised the patchy and unpredictable nature of these records. However the principal purpose of his paper was to provide a critique of the present widespread use of finds analysis to date the stratigraphic sequence. He was not convinced that pottery analysis was sufficiently refined to do even that accurately given the high degree of residuality encountered on monastic sites and the likelihood that the few sealed assemblages proved distorted information. The monastic rubbish disposal habits had a great influence here as was also suggested in connection with the animal bone debris recovered, or not, from monastic sites. It was suggested that a more fruitful approach to finds analysis might emphasise the ability of finds to show the areas of activity within a monastery (eg infirmary, kitchen, library), through the distinctive nature of certain categories of finds (such as urinals, dripping-pans and parchment prickers). Furthermore the economic relationship between the monastery and its surroundings was susceptible to much more acute study.

The other specialist papers had rather less to offer. From the early 13th century onward, a number of the wealthier monastic churches were floored with decorated tiles, adorned with geometric patterns, heraldic crests, figures and animals. These designs were produced by using wooden stamps - the resulting impression was then filled with white clay before firing. Recent studies have shown that it is possible to identify various schools of craftsmen and using neutron activation determine the geological source of the tile clay, however this form of analysis did not seem worthwhile as it was imprecise, and because the clays may occur over a large area their exact source cannot be determined.

One aspect of church art where archaeology can provide important new material is painted window glass. The dissolution of the monasteries (1538-40) resulted in the destruction of about 95% of this material, when the windows of the disused churches were smashed to allow the lead fittings to be salvaged, so fragments of window glass may be found in destruction levels.

The massive amounts of animal bone that are recorded in the documentary sources have not been turning up. Was this the result of excavations concentrating on the major building ranges of monasteries? Perhaps we should look in the fartherflung parts of the precinct or indeed outside it.

The best known aspect of urban monasteries are their cemeteries, which contain not only the remains of the monks or nuns, but also servants or patrons. Selling people the right to be buried in a monastic site was an important source of income for the orders of Friars. Sexing and ageing problems - what are women and children doing in a monastery (or men in a nunnery)? Are they lay servants or patrons? Can we draw implications from their locations? - It is often suggested that female burials in the body of the monastic churches are those of female patrons or their relatives, is this in fact



provable? Despite the members of monastic orders having a better than average urban standard of living, with good diet, housing, water supply and sanitation, there is no clear evidence of an above average life expectation, except amongst the nuns - who avoided the hazards of child bearing. Study of the burials at Merton Priory, indicated that perhaps too much good food and drink contributed to the monks untimely demise.

The second broad strand was "Research Strategies". It might have been expected to be of some interest to field archaeologists, but in the event proved to be rather disappointing. The first of the papers was presented by Richard Kemp of the York Archaeological Trust and covered the Gilbertines. The example used was the Gilbertine priory phase of a site in York and it demonstrated the use of the cascade diagram in managing post-excavation time. We were told that this system was prompted by HBMC and it became clear that in fact the research design was nothing of kind. In fact it was an attempt to monitor the punctuality of post-excavation work and consequently to regulate funding. This may have been excellent from a budgetary point of view but as an attempt to channel intellectual endeavour was less than satisfactory. The second on Shrewsbury Abbey was presented by the Hereford and Worcester Archaeology Unit. Here again funding raised its ugly head and it became rapidly clear that whatever interesting research topics might have been made available at Shrewsbury Abbey, excavation was going to be constrained by negligible funding.

The third broad strand was Spatial Studies; it proved to be rather a rag-tag collection of papers which could not be fitted in anywhere else. John Schofield spoke on the post-dissolution fate of some London monastic houses, the best evidence for which was provided by Holy Trinity Priory, Aldgate. The Dissolution was presented as provoking a sort of Big-Bang building development in which large numbers of desirable urban properties became available at the same time as Tudor courtiers found it necessary to live in the capital near to the court. The result was splendid urban palaces carved out of the carcasses of the monasteries. This phase was relatively short-lived but many of the elements of Elizabethan grand houses were prefigured in these palaces. Subsequently the sites declined into tenements and light industrial usage.

Simon Ward of the Grosvenor Museum then presented a paper on the Monastic Topography of Charter. This was an entertaining example of the way in which many of the previously discussed techniques could be used to present a fuller account of medieval monasticism than was often previously attempted. An interesting economic sideline was demonstrated by the cause of Chester's prosperity. The city benefited by being used as a base for Edward I's campaign in Wales. This brought a lot of wealth to the city which consequently provoked an upsurge in donations to the religious houses resulting in a desire on their part to expand and build. Their attempts to do so were continually thwarted when Edward hijacked their masons to build his castles and boroughs in Wales - the very thing which had provoked the activity in the first place (what price figuring that out from the archaeological record!)

David Pallisers' paper on the "Topography of Monastic Houses in Yorkshire Towns" told us that there were a lot of them; that sometimes they were established in existing towns and that sometimes their existence provoked the growth of towns; and perhaps most importantly from a Yorkshire point of view that if we were judged by number and range of monastic foundations then York was just as important as London.

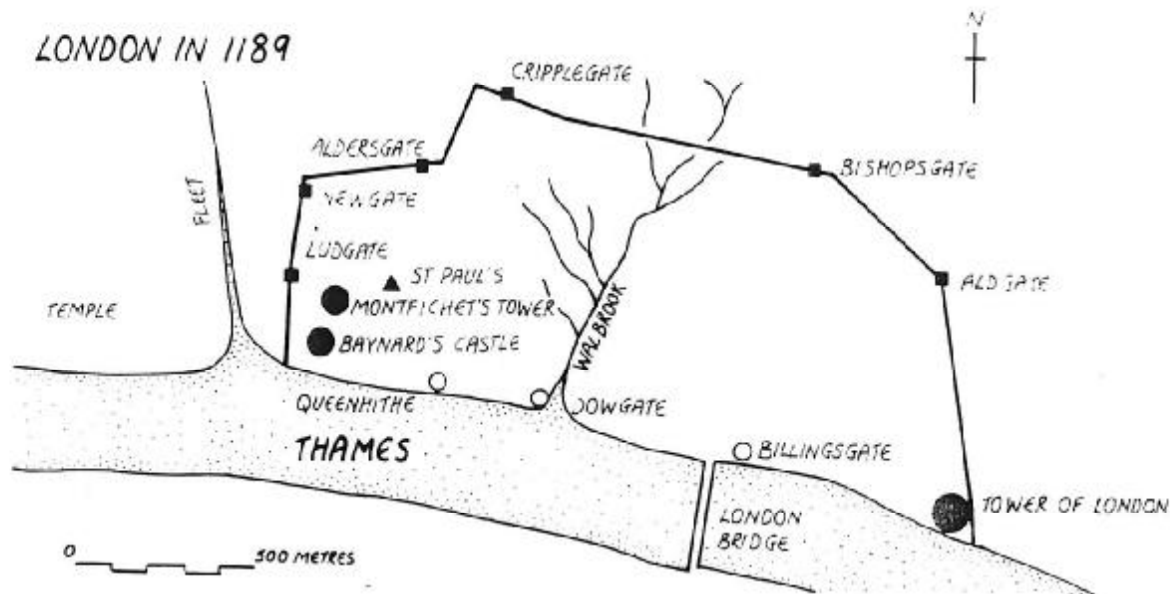
Patricia Cullum of Newcastle Poly gave a paper on "St Leonards Hospital York; the spatial and social topography of an Augustinian hospital". She spoke at length and in vast detail but did not once mention archaeology (perhaps because no part of St Leonards has ever been excavated!)

Unfortunately Richard Morris' paper on "Urban and Religious Communities" fell victim to British Rail, who on this particular Sunday evening had contrived to double the time taken to return to the metropolis. In other words we all made a run for it!

To sum up this conference was able to show the approaches that might be taken to urban monastic sites and the information that might result. Unfortunately it also showed the tendency of specialists to ramble down their own particular path without addressing the particular topic to any great extent or to grasp the potential of greater co-ordination of effort between disciplines.

Dave Lakin
Bruce Watson
edited Hal Bishop

THE 800th ANNIVERSARY OF THE LORD MAYORALTY OF LONDON.



This year all bridge parapets and street lamps in the City of London are adorned with banners proclaiming that 1989 is the Lord Mayor's 800th birthday. In recognition of this anniversary the Museum of London hosted a day school on the London of 1189.

Looking at the City today it is very difficult to visualise how it would have looked in 1189, as with the exception of the following - the core of the Tower of London; Temple church; the choir of St Bartholomew's Priory; the south nave of St Helen's Bishopsgate and possibly fragments of the City wall, there are no 12th century buildings in the City visible above ground level today. The totality of this architectural loss is emphasised by comparison with the number of surviving medieval buildings within some provincial English Cities such as Lincoln, with its cathedral, castle, Bishop's palace, numerous parish churches, fragments of monasteries and several 12th century stone-built houses.

The late 12th century City was defended by its reinstated Roman walls, inside which dwelt a population of about 40,000 people. Settlement was probably concentrated on the two low hills, each side of the Walbrook valley and its swampy headwaters. The western hill would have been dominated by St Paul's cathedral and two Norman fortresses - Montfichet's Tower and the first Barnard's Castle. While the eastern hill was dominated by the central keep of the Tower of London known as the White Tower (built circa 1078).

Both sectors of the City had their own docks - Queenhithe in the west and Billingsgate in the east. At the mouth of the Walbrook was another dock known as Dowgate. There may also have been 12th century docks along the lower reaches of the river Fleet - to the west of the walled City. It was the trade in commodities like food stuffs, wine, wool, or luxuries such as silk, that passed through these docks that was the basis of London's wealth. Along the river frontage throughout the medieval period there was extensive reclamation of the tidal foreshore from the line of Thames Street southwards.

One expression of the City's wealth at this time was the construction of a new stone bridge over the river Thames, between 1177 and 1207, this bridge with many modifications lasted until 1831. Another expression of the City's wealth and also of its citizen's piety, were the some 110 parish churches and several monasteries in existence by the late 12th century.

By the late 12th century all the main City streets would have been lined with properties. The wealthier citizens lived in rectangular stone-built houses, two storeys high with a vaulted cellar or undercroft. These cellars would have been used as shops or warehouses with the rooms upstairs as residential accommodation.

The vast majority of houses would have been one or two room single storey timber-built structures, with thatched roofs. The very combustible combination of wood and thatch, plus the density of dwellings probably explains the frequent reference to serious fires. One cause of fires during 1189 was arson during the anti-Jewish riots, sparked off by an incident at the coronation of Richard 1, which gave the yobs an excuse to set fire to the Jewish quarter of the City, now known as Old Jewry.

A city of this size and complexity would have obviously needed some form of government to manage its affairs, regulate its trade and ensure the collection of tolls and taxes. This last task was vital as London by virtue of being the largest and richest City in the Kingdom would have provided a significant proportion of the royal government's income. The folkmoot or assembly met 3 times a year to discuss City affairs. Local justice was dispensed by the hustings court. The numerous City parishes were grouped into 24 wards, each of which was run by an alderman, who would have organised the militia and collected local taxes. The aldermen met at the Guildhall. Other aspects of local government would have been handled by the sheriff, who since the reign of Henry I (1100-1135) had been appointed by the citizens of London, not the king, a privilege that Henry II cancelled in 1155, however this right was restored in 1190.

By the late 12 century there were at least 31 guilds or craft associations in the City, such as the tanners or weavers. These guilds sought to regulate training and control professional standards.

Little is known about the first mayor, Henry Fitz Ailwyn, who was an alderman and also a member of the hustings court and died in 1212. He is only described in documents as mayor from 1193, the date of his appointment is taken from a chronicle of 1270. However this discrepancy may be due to the fact that the title was not consistently used. The title is actually French, so may be a spin-off from the close links between England and France at this time. Many noblemen and merchants were Anglo-Norman, holding land in both countries and so would have been familiar with French local government.

The reasons for the creation of the mayoralty are undoubtedly connected with the political problems of 1189. King Henry II died on 6th July 1189 and his successor Richard I quickly departed on a crusade against the Turks in Palestine. William Longchamp Bishop of Ely and Chancellor was left to act as regent - an unenviable task as there had been violent anti-Jewish riots in London, Lincoln, Norwich and York. Also John, one of the king's brother was plotting against the absent monarch. These pressures probably prompted William Longchamp during 1198-90 to order a very rapid and expensive (cost £2,881. 1s. 10d.) building programme at the Tower of London, encircling the existing structure with a new bailey defended by a wide ditch. The function of this work was to convert the old Norman royal residence into a modern fortress.

The threat of further civic unrest and the king's absence from 1189 until 1194, together with the wishes of an ambitious City, would have been sufficient reason for William Longchamp or his successor perhaps to have either recognised or allowed the creation of the mayoralty. Subsequently the City purchased from both Richard I and King John royal charters that guaranteed their privileges and their right to self-government, without interference.

Westminster, a few miles upstream from the City of London was the seat of royal government in 1189, but was not then and is still not today the centre of real power - the City, where the commercial and financial wealth of the nation still remains 800 years later. Therefore the creation of the mayoralty could be seen as just one instance of Westminster acknowledging the power of the City.

NEW SITE MANUAL : 1915

With the site manual still in its draft state I wonder whether it is not too late to consider for inclusion some of the following - culled from 'Archaeological Excavation' by J.P. Droop, published in 1915.

INTRODUCTION

The time has perhaps gone by when it was necessary, if it ever were, to put forward a defence of the pleasant practice of digging, a defence of it, that is to say, not as a harmless recreation of the idle rich, but as a serious business for a reasonable man and the time has come when it may be of some interest to set forth the principles that have been, or at least should have been, the basis of the work.

TOOLS AND EQUIPMENT

If time and money were of no account there is no doubt that for a productive site the best digging tool would be a kind of bread-knife without a point. The use of such a weapon goes nearest to insure the fewest possible breakages, for it is light, and the blunt end does not provide the same strong temptation as a point to use premature leverage.

SENIOR ARCHAEOLOGIST QUALIFICATIONS

Meticulous care directed by common sense along the lines laid down by past experience, that is the essence of good digging: yet the ideal man to have charge of an excavation would be a very versatile person.

He should be very patient, able to hold in check any nature human desire for undue haste to seize his spoil until his sober judgement tells him that the right moment has come. He should have the power of smooth organisation; and the power of delegating to other, which does not mean going away and letting the others do his work.

RECORDING

As with the planning most drawing can be done and better done professionally after the excavation is over, yet there are cases when the object is too frail to be removed intact, and the excavator's conscience is then clear only if a picture has been made before removal, for which photography is not always adequate, for all archaeological objects cannot be satisfactorily photographed, particularly if it is not possible to clean them thoroughly, because, though the camera cannot lie, it cannot make a proper distinction between dirt and design.

No excavation is properly fitted out without a good supply of squeeze paper, the unsized paper used for taking impressions of inscriptions.

FINDS WORK

For cleaning pottery and terracotta objects a good supply of hydrochloric acid is wanted, of which the method of use is either to

leave the pottery in a fairly strong solution, or to dip it in water and then to apply the acid neat with a paste brush, or to do first the one and then the other for the more obstinate points.

PHOTOGRAPHY

At the risk of being wearisome I must repeat that the camera must not be made a fetish; that though often indispensable it is not always enough, from its fatal habit of seeing too much, so that in its pictures sometimes the essential does not stand out clearly against the unessential background.

PR

I have heard of an excavation where a tomb is photographed not only before opening and after the contents are fully exposed, both right and proper moments for photography, but at three or four points in between; the same excavation, it is said, sees a panorama of the site taken once at least every day, that the general rate of work and gradual change in the aspect may be shown, things that can have no importance unless it is to show the supporters of the expedition that a certain amount of soil is moved every day for their money. This is photography gone mad, and the only logical outcome of it is a cinematograph operator at work all day and every day at every possibly interesting part of the site; when things reach this point the excavator will no doubt speak his notes into a dictaphone, and popular interest in archaeological work will no doubt rise high and may even reach the audience of the Picture Palace.

SOME QUESTIONS OF MORALITY

Excavation like any other pursuit has its own special morality and it is possible to frame a new decalogue for the use of the fraternity.

1. Knowledge ascertained by proof is the only thing that really matters.
2. Do not introduce theories into your excavation work, more than is absolutely necessary. If you want to spend your time pursuing fascinating but elusive theories, well and good; but let it be your leisure time, not that devoted to your high calling.
3. Work very slowly, remembering that an overtaxed staff is an inefficient staff.

EXCAVATION TEAM

By way of epilogue I may perhaps venture a short word on the question much discussed in certain quarters, whether in the work of excavation it is a good thing to have co-operation between men and women. I have no intention of discussing whether or not women possess the qualities best suited for such work; opinions, I believe, vary on the point, but I have never seen a trained lady excavator at work, so that my view if expressed would be valueless. Of a mixed dig however I have seen something, and it is an experiment that I would be reluctant to try again; I would grant if need be that women are admirably fitted for the work, yet I would uphold that they should undertake it by themselves.

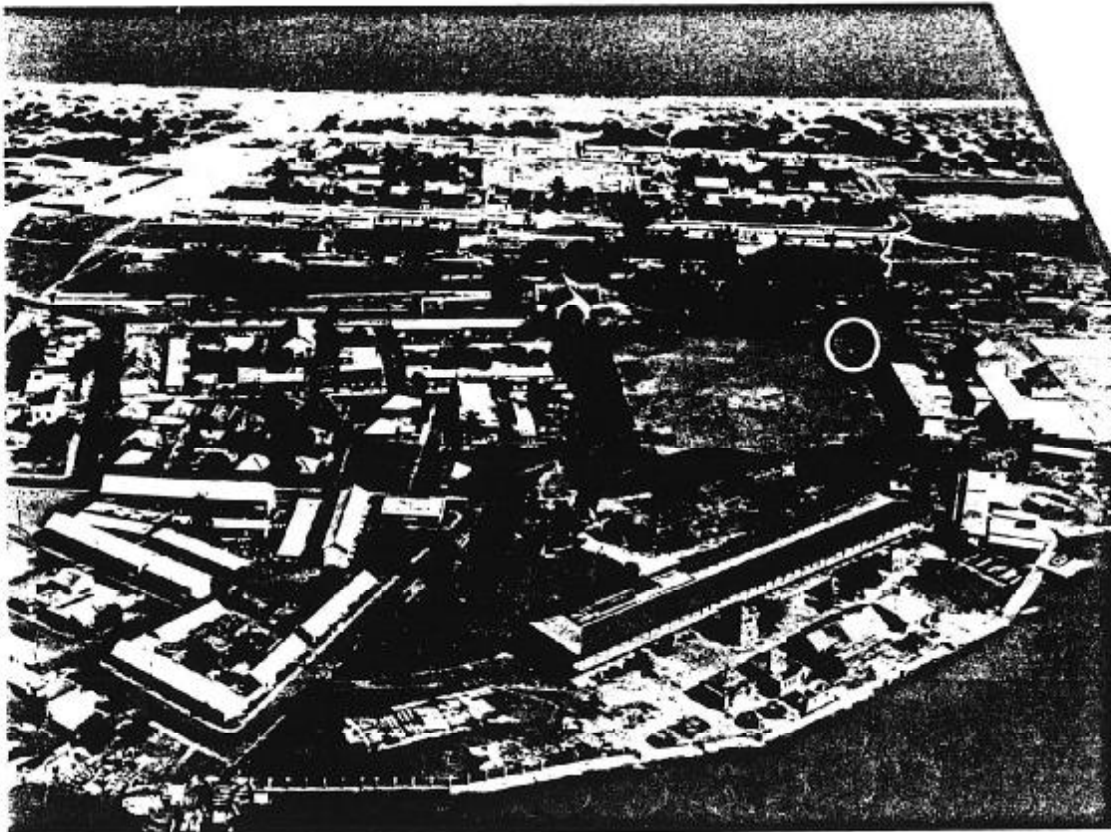
My objection lies in this, that the work of an excavation on the dig and off it lays on those who share in it a bond of closer daily intercourse than is conceivable, except perhaps in the Navy where privacy is said to be unobtainable, except for a captain; with the right men that is one of the charms of the life, but between men and women, except in change cases, I did not believe that such close and unavoidable companionship can ever be other than a source of irritation;

A minor, and yet to my mind weighty, objection lies in one particular form of constraint entailed by the presence of ladies, the further strain of politeness and self-restraint in moments of stress, moments that will occur on the best regulated dig, when you want to say just what you think without translation, which before ladies, whatever their feelings about it, cannot be done.

Simon O'Connor Thomson

FROM OUR FOREIGN CORRESPONDENTmembers of the DUA abroad

PORT ROYAL, JAMAICA



- 1: Port Royal from the air, showing part of the town (left), the Old Naval Hospital Museum (fore ground) and the football field with the 1988 excavation ringed. The sunken part of the city lies in the water at the bottom of the picture.

Port Royal, now a sleepy village at the mouth of Kingston harbour on the south coast of Jamaica (Fig 1), was established by Oliver Cromwell's soldiers as part of the acquisition of Jamaica in 1655. It quickly grew in size and importance as a port in the new colony, but was badly damaged by an earthquake in 1692.

Between 1661 and about 1675 Port Royal was the home port of the buccaneers, licenced pirates; colourful personalities who included Captain Henry Morgan (of the rum). Before its partial destruction in 1692 Port Royal was condemned as 'the wickedest city in christendom'.

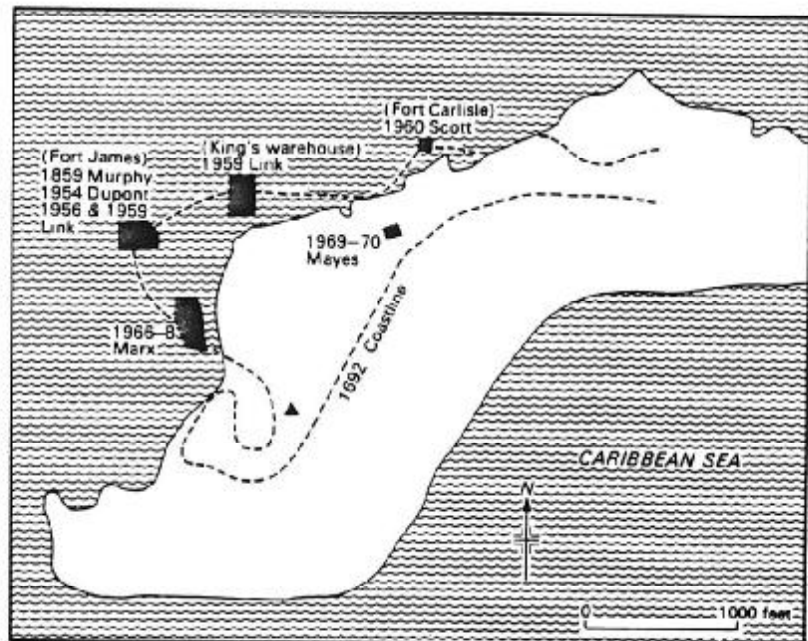
In the 18th century a British dockyard was established in the town, and this grew in stages (including reclamation over parts of the submerged pre-1692 town) until abandonment in the early 20th century. Nelson served there briefly as a young officer. On a plaque in Fort Charles, the main monument, are the words 'In this place dwelt Horatio Nelson - you who tread his footprints remember his glory.'

In 1983 the Jamaican government launched a project for 'Upgrading and Renewal of the Historic City of Port Royal'. The government proposed to 'reconstruct the town's fabric and economy using its historic and topographic resources as the seeds for its rebirth.' This implied a mixed package of conservation, restoration and redesign together with the upgrading of essential services; housing conditions are poor and the drains are bad.

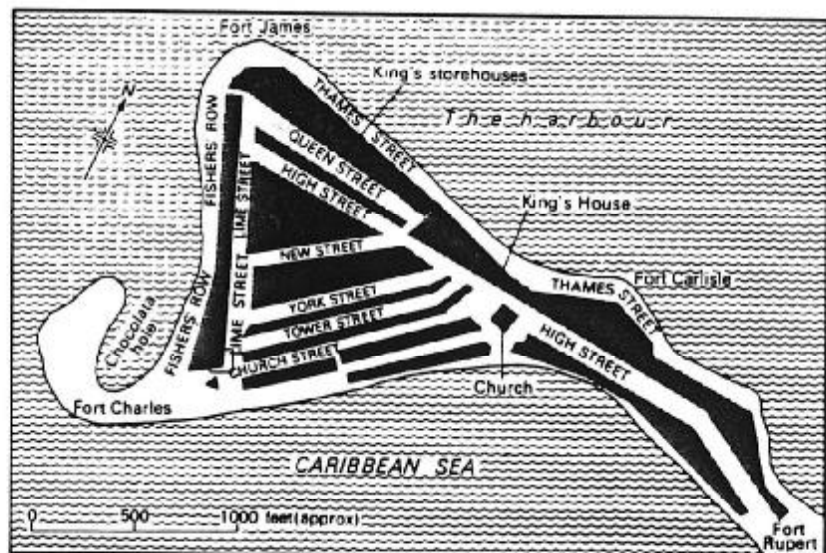
Once the basics had been sorted out, the Project proposed to rebuild one of the lost streets, Lime Street, to be lined with replica buildings in historic styles which might well have been present in Port Royal, founded on the best historical research. These would be preceded by archaeological excavation; and through Oliver Cox, a British architect advising on the scheme, I was asked to provide support and training in this task. After preparatory visits in 1986-7, the Jamaica National Heritage Trust held its first exploratory excavation at one end of Lime Street, now beneath the town football pitch. The British team was based on the DUA: Tim Williams supervised the excavation, with Craig Spence, Ken Steedman and Nicky Pearson from York; Alan Vince and Jane Cowgill (assisted by Jackie Keilly) saw to the ceramics and finds, and Paul Tyers, then our Computing Supervisor, directed the installation and use of computers for the first time into the Trust.

Archaeological potential

Port Royal, founded largely as a daughter-city of London, still contains much of its 17th-century fabric beneath the ground. There have been several excavations there, mainly of the pre-1692 city beneath the sea (Fig 2), overleaf. The town was laid out over virgin ground very quickly in 1655-60, and many of the street-names recall London (Fig 3), overleaf. Beneath the sea, artefacts of every kind and in great profusion illustrate mid- and late-17th century life, and much of the material is imported from London. In fact, at the micro-level of both buildings and finds, Port Royal may have much to tell us about 17th-century London because of its far better preservation; the London of Pepys is very badly damaged. Port Royal also has a great store of luxury finds which normally do not figure largely in the archaeological record, such as pewter, wine glasses and porcelain.



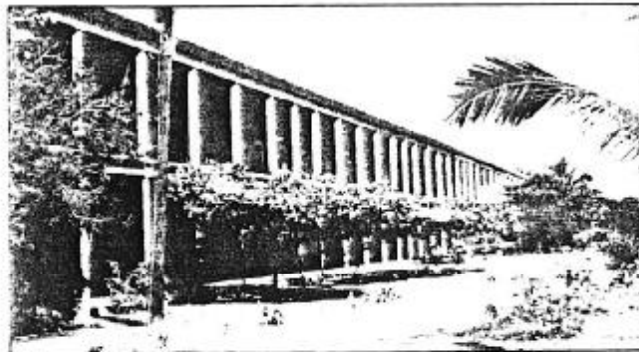
2: Areas of archaeological investigation in Port Royal to 1970. The triangle marks the 1988 JNHT-DUA site.



3: Reconstructed street-plan of Port Royal before 1692. The top third fell into the sea during the earthquake. The 1988 site is marked at the south end of Lime Street.

The 1988 excavation

Port Royal today is a small village of buildings largely erected after the hurricane of 1951. Fortunately, the excavation site, in the corner of the football field (much local politics on this issue, but the fanatical interest of most of the DUA team in the sport proved diplomatically useful), was adjacent to the Old Naval Hospital Museum (Fig 4), a cast-iron building shipped out from Bradford in the early 19th century; a dusty but splendid archaeological centre. The setting of the excavation is shown in Fig 5, overleaf.

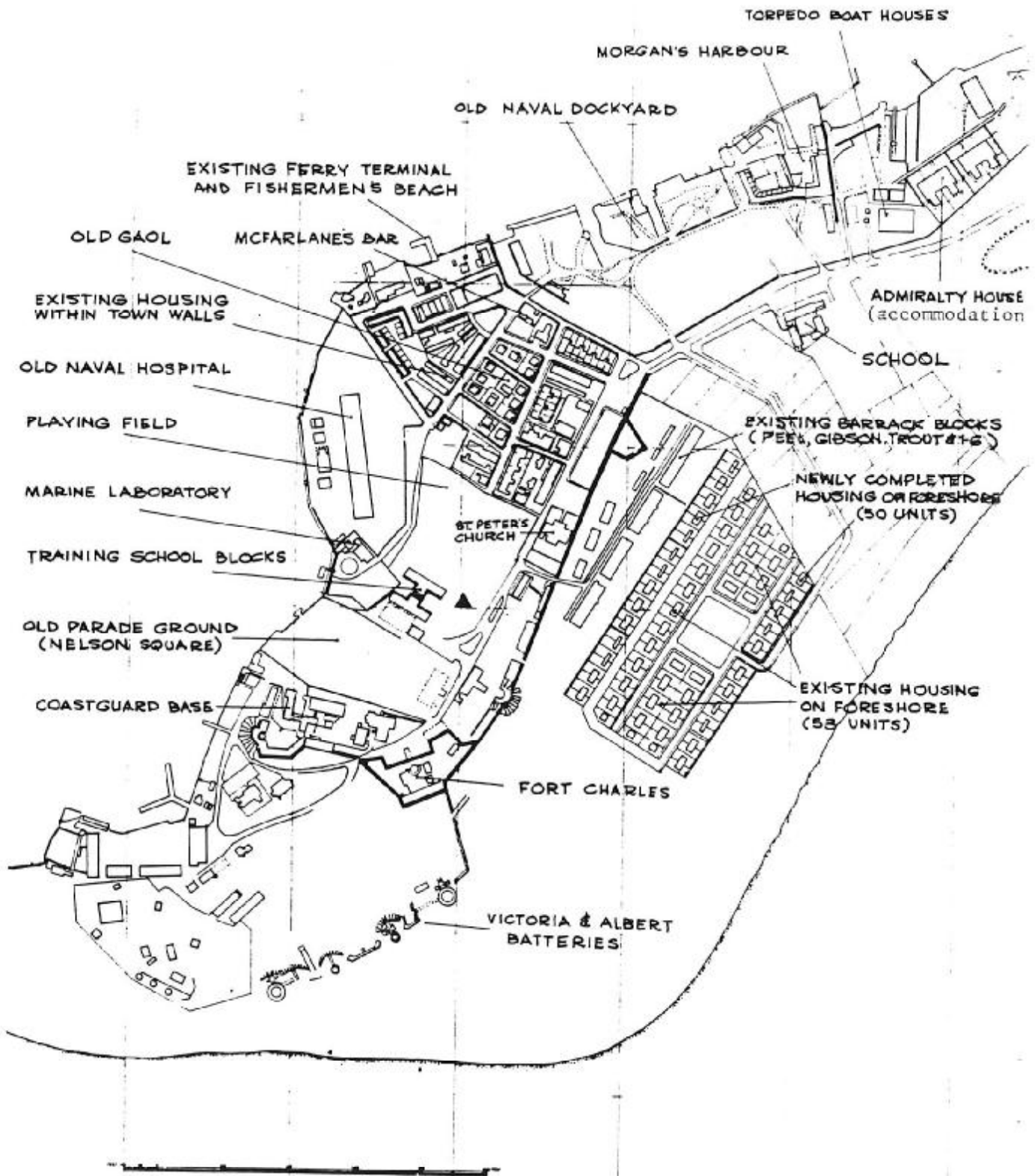


4: The Old Naval Hospital, now the Port Royal Museum

The opening season was very small-scale; a trench excavated by 6-7 people (Fig 6) and training seminars. We wished to locate the expected high water-table, which had so nearly wrecked Philip Mayes' excavations of St Paul's church, nearer the sea and probably at a deeper level, in 1969-70, and set up good excavation and post-excavation procedures.

The earliest phase of building recorded consisted of a number of brick walls outlining several discrete rooms and spaces. To the east the area appears to have been divided into several rooms, none of which completely lay within the excavation area. These probably formed a range fronting on to a street known to have lain to the east. To the west lay a yard with buildings on its southern side (the back of the yard as entered from Lime Street). Several smaller structures later encroached upon the yard, the most obvious of which was a small room in which was found the remains of a bucket, next to a small drain outlet; this may have been a privy. To the north a structure (?a porch) was constructed, giving access from the yard to the northernmost of the identified rooms of the eastern range. In this phase Lime Street must have lain to the north of the excavation.

This building was clearly damaged, if not actually destroyed, by fire; there were also signs of subsidence, with both collapsed walling (particularly in the area of the privy) and buckling of the floors. The dating evidence suggests that the fire took place sometime in the early eighteenth century (by 1730), after the earthquake of 1692. This suggests that the buildings found were either constructed before 1692 and their lower parts re-used, or that the buildings date from after 1692; in either case to be destroyed during the eighteenth century.



- 5: Port Royal today, showing the main features of the town; the excavation marked by a triangle. The surviving streets are on their 17th-century alignments.



6: The trial excavation in progress, February 1988.

Several further phases of building construction can be dated to the eighteenth and nineteenth centuries. During one of these phases the south edge of Lime Street was located, suggesting that the street was wider during the mid or later eighteenth century than before.

Besides the excavation, all the usual DUA back-up skills were called upon: school and student visits, dignitaries, sign-boards, and use of video (Fig 7), overleaf.



7: Nicky Pearson being recorded by professional video-makers documenting the larger Port Royal Project.

Natural disasters and general elections

As we left the site in May 1988, the state of play was remarkably reminiscent of life in the DUA; the excavators were to finish their level 2 records, and we would encourage them to produce an interim report and finds appraisal.

Since then two major events have hit Jamaica: Hurricane Gilbert and the general election, in which the opposition People's National Party, led by Michael Manley, have swept back into power. The hurricane of last September caused some damage (such as removing 80% of the hospital roof) and stopped the small budget earmarked for our work in early 1989. The election means that the whole project has to be reconsidered by the new government; the wider rehabilitation project, though laudable, was to be largely funded by foreign aid, and Jamaica's debt problem is grave. In sum, we wait to be recalled; and if we are, the project would resume in early 1990.

Wider research objectives

In the meantime, we have been preparing the case for promoting Port Royal as an archaeological exercise of interest and importance, not only for Jamaica, but for the archaeology of London and

as a methodological proving-ground for new techniques of interest to all archaeologists. An example would be the creation of a Jamaica pottery archive for 1650-1800; a major contribution to the history of Jamaica and the western Caribbean, and with potential consequences for the history of London. For the period 1655-1692 Port Royal was the most important trading centre in the West Indies; in 1734-1800, after a succession of natural disasters, it continued to be strategically important as an outpost of British maritime power. By application of the methods of study developed in the Museum of London, and capitalising on the expertise gained thereby particularly in the use of computers, the JNHT can construct a corpus of ceramic types - pottery, clay tobacco pipes, and brick and tile - which can underpin the study of the history and archaeology of the entire island since before the Europeans arrived.

The archaeological project, carried out at a research pace but made necessary by benign development, is of an earthquake, the livelihood of Jamaicans and intrusive Europeans in a colonial context, and of the mixture of races and cultures within the young Jamaica itself. It is carried out within a programme of rejuvenation of a place which has been talked through with the community at every stage, and will bring both jobs and dollars to a third-world country which has tourism as its largest earner of foreign currency. Thus we can combine archaeological investigation with positive presentation of a country's heritage and training of the country's archaeologists. You may see more Jamaicans here in the future.

John Schofield

**D.U.A. IN SEVEN
GOAL THRILLER**
by our sports
correspondent

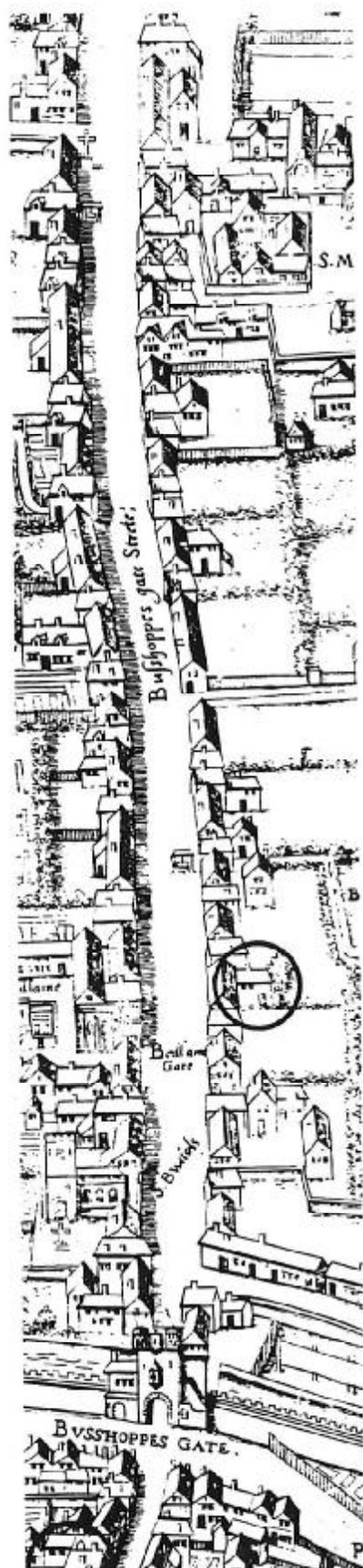
Wednesday February 1 saw the eagerly awaited clash between those giants of the game, The Museum of London and the D.U.A. Casuals. [Historical note: way back in the mists of time, when dinosaurs ruled the earth and the Maloneys were the excavations office, several D.U.A. and D.G.L.A. staff got together and formed the Museum of London football team. Several heavy thrashings later, enthusiasm waned and non-museum ringers were bought in to bulk up numbers. They in turn bought in friends and by 1988 the Museum of London football team had no-one left who worked for the Museum. Now read on].

It was a dark and stormy night in Southwark as the huge crowd (of several youths with nothing better to do) gathered expectantly in Tabard Gardens as the two teams ran onto the pitch. Two of this enormous gathering were then pressganged into turning out for the D.U.A. Casuals because of shortage of players. The game started and the Casuals immediately laid siege to the Museum goal which had to withstand enormous pressure. This set the pattern for the game. With Jon Butler outstanding in goal despite an injured finger and Craig "Iron Man" Spence marshalling the defence, things looked promising for the Casuals. Damian DeRosa hustled effectively up front, several times rising like a young salmon at the far post to test the Museum's keeper. Martin Watts, despite losing a battle with a kettle the previous evening, operated a free ranging role on the left flank, giving the museum right back a torrid time. Richard Greatorex displayed all his ball skills in the centre of midfield. Ian Marsden added to his growing reputation as the new Jimmy Greaves with a well taken goal lashing an unstoppable shot into the net from two yards after a penetrating through ball from midfield maestro James Drummond-Murray. Unfortunately by this time the Museum had sneaked into a six goal lead with a series of lucky breakaways and a mixture of clearly offside goals, miss-hit shots that crept into the net and generally shooting when we weren't ready.

A pitch invasion by two exiles from Neasden, Sid and Doris Bonkers, who did not have identity cards but had booked the pitch next, brought the game to a halt just as a lucky shot from long range whistled into our net. It did not count. Final score:
Museum of London 6: D.U.A. Casuals 1.

A spokesman for the Casuals said "The lads done great. We were robbed. The ref was blind. We gave 110%. We were just getting on top when the whistle went. We shall have our revenge in the rematch on March 22."

SUMMARIES OF CURRENT SITES



1. Ormond House

Excavations have commenced in the basement of Ormond House which is located next to Mansion House Underground Station. Initial clearance is underway and the test pits carried out in 1988 indicated that there will probably be traces of Roman masonry buildings.

2. 68 Upper Thames St

The site is located to the west of Southwark Bridge within an area of land reclaimed from the Thames over several centuries. Primary work revealed medieval chalk foundations, pits and wooden structures. The excavation has now established a good late Saxon reclamation sequence of quays and associated working surfaces interspersed with clay banks, organic dumps, wattle and brushwood rafts and foreshore-flood deposits. A large environmental sampling program is in operation and finds have included Saxon rope, decorated leather and coins.

3. 168-170 Bishopsgate

The excavation fronts onto Bishopsgate and lies outside the Roman and medieval city walls, within the area of the extra-mural Roman cemetery. A series of intercutting pits dating from Victorian to Roman have been excavated, one of which contained a disarticulated human skull, but so far no articulated burials survive.

4. Dominant House

The site is located within the area of the Roman Huggin Hill Baths and lies adjacent to areas examined in trial work in 1988. Work in February has progressed through a substantial medieval and late Saxon building/occupation sequence. Medieval chalk foundations fronting Thames/Bread Streets replaced in location and alignment, a sunken building of late Saxon date, measuring 6 by 15 metres in area. Earlier Saxon occupation, including pitting and open hearths are awaiting closer dating. A series of late Roman dumps, tipping down towards the river underlay the Saxon deposits and in turn seal a sequence of Roman clay and timber buildings. There are already indications of substantial survival of the walls and floors of the Baths and these should be uncovered over the next few weeks.

5. 52 Gresham Street

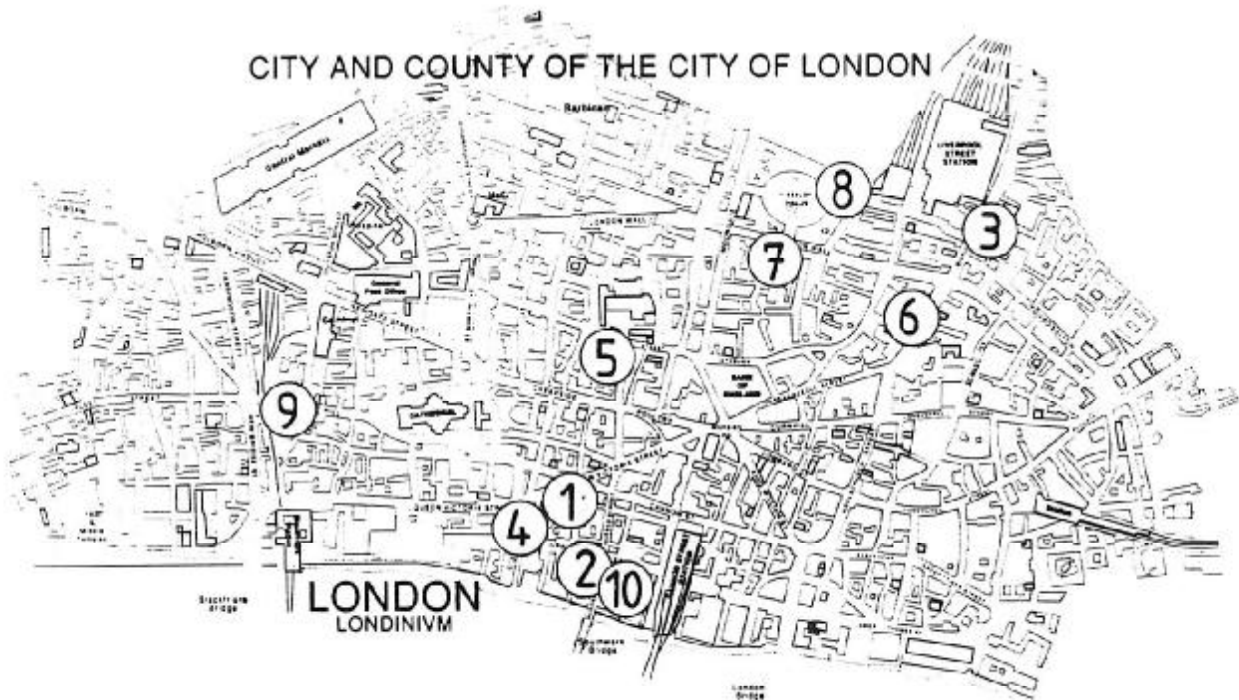
The site lies to the south of Gresham Street. Excavations have revealed foundations, some of which may be Roman, and a 2 metre deep well lined with wattle towards the bottom. The excavation is requiring substantial shoring in order to support the 18th century standing building.

6. 41-63 Bishopsgate

The site lies on the west side of Bishopsgate, within the Roman walled city. The street closely follows the line of the original Roman road, Ermine Street, which ran from the north of the Basilica to the Bishop's Gate. Previous excavations in the vicinity have revealed evidence of both early and late Roman buildings aligned with the Roman road. Initial clearance of the site has revealed pits and post-holes which are probably Roman in date.

7. 52-63 London Wall

The site lies immediately within the Roman and medieval city walls and straddles the Walbrook valley. Excavations in the area indicate that a NE-SW road, associated timber drains and clay and timber Roman buildings will probably be uncovered on the site, as well as revetments and other features related to the Walbrook. Initial work on the site has uncovered a major ditch, over 4 metres wide dating to the 11th century and parallel with the City Wall. Roman features include a timber-lined drain, gravels and layers of Roman demolition debris.

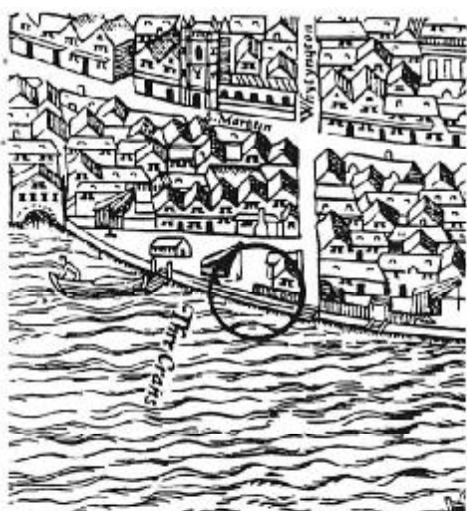


8. 15-17 Eldon Street

The excavation lies to the north of the Roman and medieval city walls in an area that was always wet and in need of controlled drainage. Several layers of marshy deposits have been encountered as well as a wood-lined Roman well containing a complete pot with a coin in it. The area was also known to be within a Roman cemetery and a number of inhumations have been excavated. Four were lying within wooden coffins, although the wood was not well enough preserved to merit major conservation. A possible tanning pit and associated leather off-cuts have been recorded as well as a number of drainage ditches and gullies.

9. Fleet Valley

Two areas have been investigated within the Fleet Valley within the last month, a controlled excavation in the Ludgate Car Parks and a watching brief in Ludgate Hill. The excavation has produced early medieval buildings; a 12th century building with the first step of a newel staircase in Reigate stone and the threshold and lower



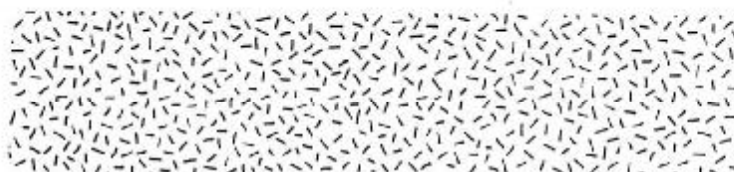
CURRENT AND FORTHCOMING PROJECTS



courses of a 13th/14th century doorway, again using Reigate stone. Identifying these buildings from documentary evidence is currently raising certain questions. Within the watching brief the Ludgate frontage probably for one of the buildings within the excavation has been identified, as well as early medieval timber revetments for the Fleet river.

10. Thames Exchange

The site is located to the east of Southwark Bridge and work has continued on the sequence of Roman, Saxon and medieval waterfronts. Four tie-backs associated with the 3rd century Roman Quay have been revealed and dismantling of the stave fronted clay and timber Saxon embankment has been underway. Within the embankment, the largest collection of Saxon millstones, at least forty-six to date either whole or halves, found on one site in England have been recovered. A wooden paddle? from a water wheel was also found in an associated context.



Gulldhall Yard

The public inquiry into the Corporation's proposed redevelopment of the old art gallery site (GAG) and Portland House finished last week with the official outcome not due to be known until c. August.

Museum of London

The redevelopment of No.1 Londson Wall, the Rotunda and the SW corner of the Museum has been revised and, in the unlikely event that all goes smoothly, demolition could start as early as September 1989. The Archaeology is likely to survive on the corner of Aldersgate St and London Wall (SE corner) and in the streets.

Cannon Street Station

The phase 2 redevelopment northwards from arch 13 is not likely to happen in the near future as was once proposed. The various parties who have their fingers in the pie, the Prudential, Lloyds Bank and British Rail inter al., are trying to get too much of a percentage out of it to make development currently viable.

Bull Wharf/Brooks Wharf

These sites are in the offing - the 'last' major waterfront sites; English Heritage are involved because of the scheduled Queenhithe dock at the centre of the development.

RECENT PRESS
COVERAGE

Thames Exchange

THE TIMES THURSDAY FEBRUARY 23 1989

Saxon stones found in the City

GRAHAM WOOD



Miss Alex Moore, an archaeologist, with part of the largest collection of Saxon millstones found on one site in England. It has been uncovered by archaeologists from the Museum of London and provides the earliest evidence of a City watermill. At least 25 circular millstones have been recovered at the Thames Exchange site on the north bank of the river near Southwark Bridge. They were cut from German stone and are an important indication of trading links. The excavation is being financed by Kumugai Gumi, the Japanese developer, and has also unearthed a timber warehouse and Saxon buildings.

THE INDEPENDENT Thursday 23 February 1989

Millstones give clues to extent of Saxon trade

By David Keys

Archaeology Correspondent

IMPORTANT evidence of international trade and of warfare in late Saxon London has been discovered by archaeologists at a site near Southwark Bridge.

Excavations have unearthed the largest collection of Saxon millstones to be found in Britain — as well as evidence of a probable battle fought on the banks of the Thames.

Archaeologists digging on a site near Upper Thames Street found 44 complete or near-complete millstones imported from Germany in about AD 1000 — and six iron arrowheads thought to have been fired in anger when the Danish king Canute besieged London in 1016.

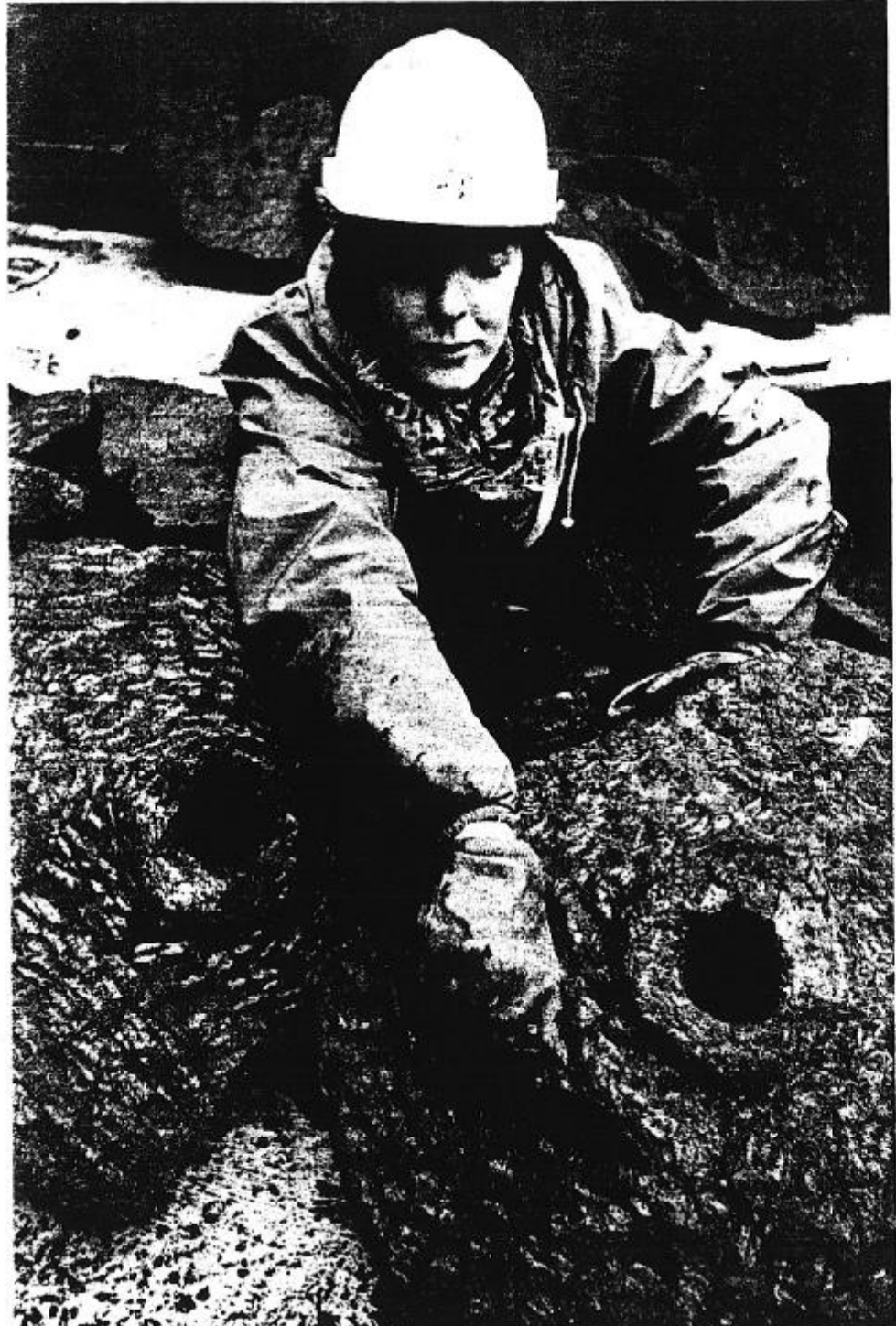
So far two types of arrowhead have been found. It is thought one type may have been used by the English defenders, while the other type may have been used by the Danish attackers.

The *Anglo Saxon Chronicle* recorded that the Londoners succeeded in beating off Canute's attack. "They attacked the city in strength by water and by land, but almighty God saved the Londoners," it stated.

The millstones' discovery illustrates how Saxon Londoners were importing extremely bulky items from the Rhineland. The millstones are made of volcanic lava of a type which was quarried in Germany.

Archaeologists now believe that the site where the millstones were found may have been a watermill, as it is located on what used to be the confluence of the Thames and Walbrook rivers.

The excavation, funded by Kumagai Gumi, a Japanese property developer, is being directed by Gustav Milne, of the Museum of London.



Alex Moore, of the Museum of London, cleaning some of the collection of 44 Saxon millstones which were found at a building site near Southwark Bridge, London. Photograph by Tom Pilston

Saxon rope found

ROPE used in binding a late Saxon river-wall on the north bank of the Thames has been found by Museum of London archaeologists.

The woodfibre rope and the hurdles it strengthened are in good condition thanks to waterlogging of the site, in Upper Thames Street.

In Saxon times London was served by a beach-market in this area, where traders drew their ships up onto the riverside and sold direct to Londoners.

THE INDEPENDENT
Saturday 11 February 1989

Port unearthed

A quayside wall from the port of London, faced with woven woodwork and planks, constructed in about 1050, and two ships' mooring posts with rope marks, have been unearthed by Museum of London archaeologists in Upper Thames Street.

68 Upper Thames Street

Saxon quay uncovered in City dig

ARCHAEOLOGISTS excavating a site in the heart of the City today uncovered ancient remains they say give a vital insight into life in Saxon times.

After a month of painstaking work, they have uncovered an almost perfectly preserved 900-year-old wooden riverside wharf.

Back in the year 1000, the Thames—now about 70 yards away—flowed right under the old office building at Vintry House, Upper Thames Street, where archaeologists from the Museum of London are at work.

The find is said to be "significant".

THE DAILY TELEGRAPH, SATURDAY, FEBRUARY 11, 1989



Mr Julian Ayre, site supervisor, works on the Saxon dock found at Upper Thames Street in the City of London

Saxon trading quay discovered in City dig

REMAINS OF a Saxon quay from the 10th or 11th Century have been discovered in the City of London, giving further insight into the changing waterfront of the River Thames.

The quay, built as a retaining wall supported by wattle hurdles tied with wood-fibre ropes to posts, is 135 metres north of the present bank of the river.

Cobbles of Kent ragstone which

By Nigel Reynolds
Arts Correspondent

would have formed a firm footing for Saxon dockers were also discovered.

The three-metre section demonstrates to archaeologists how successive medieval generations reclaimed land by throwing the waterfront further and further out into the marshy river.

Several pieces of London's Roman waterfront, dating from the 3rd Cen-

tury, have been found this century between 10 and 15 metres further north.

Two other Saxon sections nearby are already known about but the date of this find shows that it was probably the first post-Roman waterfront in the City.

The dig, at a site between Upper Thames Street and the river, is being conducted by the Museum of London's Department of Urban Archaeology, prior to redevelopment.

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Saturday February 11 1989



Quay to the past . . . Museum of London archaeologist Dick Malt shows some of the Saxon wattle hurdles found in excavations of an ancient mooring wharf on the Thames at the Vintry House site in the City. PHOTOGRAPH, GRAHAM TURNER

WAY OF THE WORLD

Sites for all

"WE ARE in the midst of an archaeological holocaust", says Dr Peter Addyman, director of York Archaeological Trust. "A large part of our heritage is being laid waste because we can't afford to save it". What he is trumpeting about is "the plight of York, where archaeologists are racing against time to excavate the remains of what is believed to be one of the most important Roman buildings discovered in Britain".

In such cases, which are reported almost daily from all over the country, archaeologists are always racing against time, and the buildings they want to excavate are always some of the most important ever discovered. It is a rule.

If archaeologists persist in this noisy and arrogant behaviour, demanding the right to excavate sites wherever they say they are worth excavating, they will soon replace architects and art historians as objects of public obloquy. Bus conductors will turn them off their buses ("I'm not having archaeologists on my bus") and little children will titter, point and call after them in the street.

The trouble is that because archaeology is rather a soft option for a university degree there are too many archaeology graduates and not enough sites to go round. Hence the need to find new ones all the time. Moreover, excavation is a pleasant, not too demanding outdoor occupation and good for making friends.

Dr John Goodmound, head of the archaeology department at Nerdley University, has suggested constructing thousands of mobile artificial archaeological sites which could be moved from one part of the country to another as required and set up for excavation wherever there was a vacant space. But as there would then be less opportunity to make a fuss, cry holocaust and order people about, it would take a lot of the fun out of archaeology.

Peter Simple

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LETTERS TO THE EDITOR

Letters to the Editor may now be sent by facsimile to 01-538 6455.

Heritage laid waste

SIR—I enjoy Peter Simple's well-aimed swipes at the ridiculous and pompous but I disagree with his view of archaeologists (Feb. 2).

Dr Peter Addyman's talk of an "architectural holocaust" may sound melodramatic but the boom-in re-development, particularly in urban centres, historic towns and on gravel extraction sites, means that a large part of the nation's heritage is being laid waste. Archaeologists must "trumpet" their concern because that heritage is irreplaceable; yet it is being destroyed with alarming rapidity.

But there has been encouraging progress in the relationship between developers and archaeologists which has resulted in an effective code of practice.

Peter Simple is wrong to suggest there are too many graduates and not enough sites; the actual position is quite the reverse. Excavation, far from being a pleasant, not too demanding, outdoor activity, takes place in London to very tight deadlines, often in difficult circumstances and in appalling weather.

The fate of the nation's archaeological heritage is an important environmental issue, since that heritage is an increasingly scarce resource which must not be wantonly or thoughtlessly squandered. Archaeologists are not demanding the right to excavate sites they say are worth investigating. Developers are increasingly acknowledging a responsibility for the archaeological heritage: let newspapers acknowledge theirs in the reporting of it.

JOHN MALONEY
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