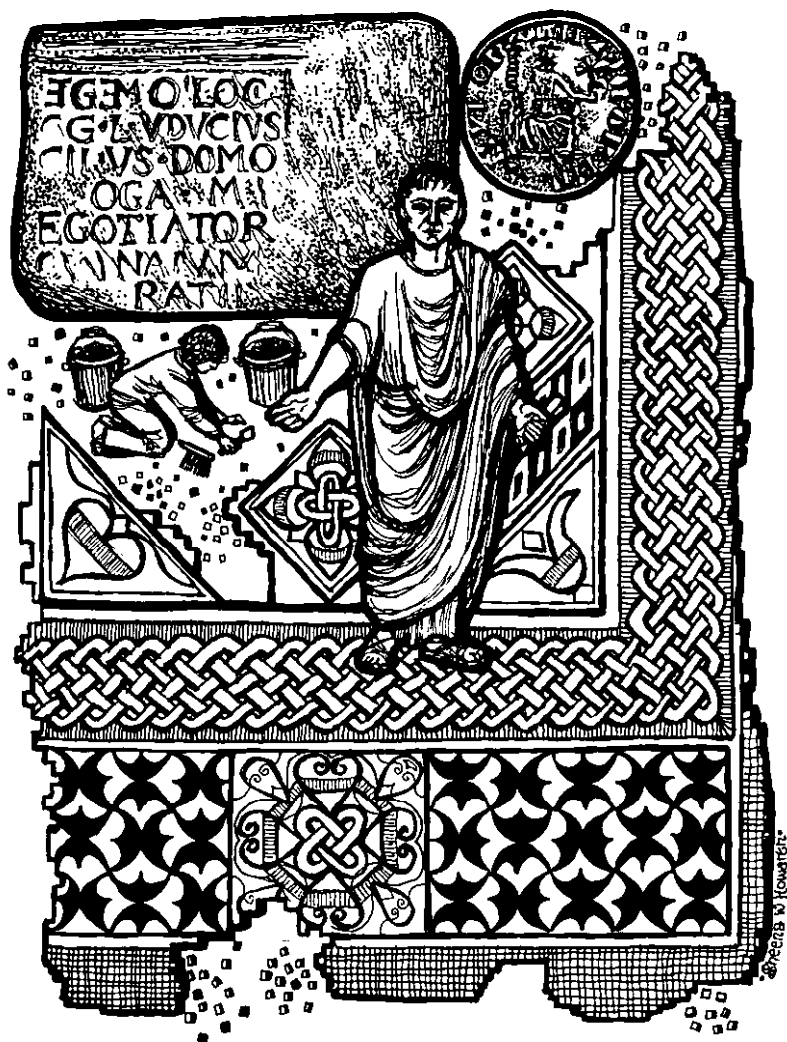


# interiminteriminteriminto

BULLETIN OF THE YORK ARCHAEOLOGICAL TRUST



VOLUME 4 NUMBER 2



MODERN 1901 - ?



VICTORIAN 1837 - 1901



GEORGIAN 1714 - 1830



STUART 1603 - 1714



TUDOR 1485 - 1603



MEDIEVAL 1154 - 1485



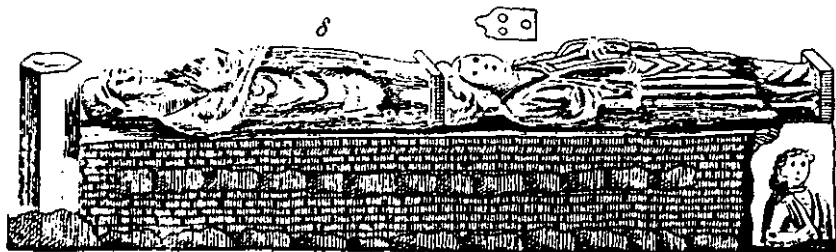
NORMAN 1066 - 1154



SAXON & VIKING 410 - 1066



ROMAN 71 - 410



On the Church-Yard Wall of St. Laurence, extra  
Walling, lie two very ancient Statues, prostrate;  
(Fig. 8.) but whether *Roman or Saxon*, Pagan or *Chri-  
stian*, is not easy to determine, though the Head which  
is stuck in the Wall underneath these Statues is cer-  
tainly Roman, both from the Gritt and Sculpture that its  
Age demonstrates.

# interim

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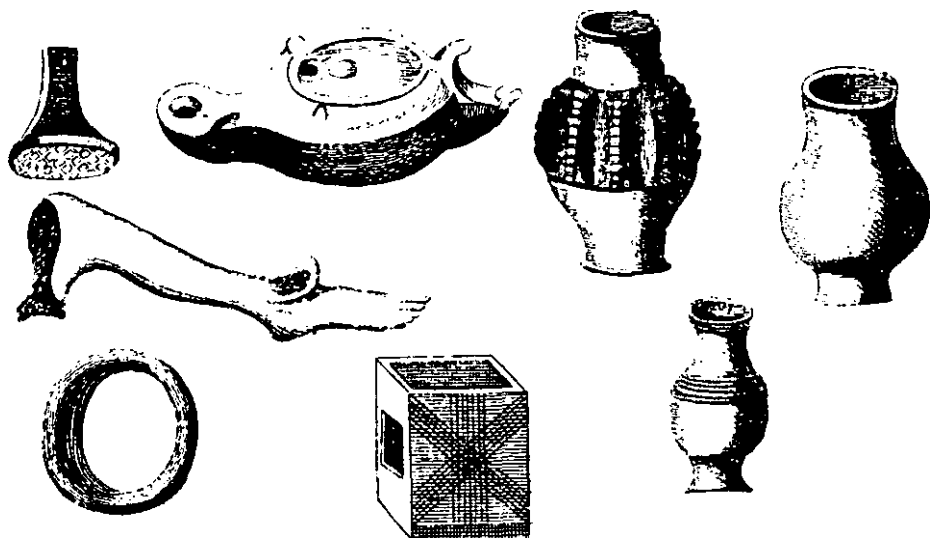
Coven and small finds drawings : Sheena Howarth  
Pot Spot drawings : Jane Holdsworth

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\* Dr. Gale supposed them to be Statues of a Roman Senator and his Lady; but the Form of the Beard on one of them is a strong Argument against that Supposition.



Clementhorpe: the Roman mosaic pavement as finally uncovered.



## 'We'll all pool together.. ...

A century ago, the establishment or enlargement of an antiquarian collection would have been a sufficient reason for mounting an archaeological excavation. The collection was the end to which nearly all archaeological effort was directed and with the fixing of the last brass screws in the display case, the most assiduous antiquary would have felt well-satisfied that he had brought another exercise to a successful conclusion. One result of this approach is that many of our major museum collections which have their origins in the nineteenth century are, on the one hand, fairly selective, since only the more displayable items tended to be kept, and on the other they are usually effectively unstratified, since the individual objects were generally gathered for their intrinsic value, with only broad reference to the archaeological context from which they were recovered. This is true of much of the early material in the major national museums as well as their provincial counterparts.

Hand in hand with recent advances in excavation technique has gone an improvement in the quality of information relating to the finds recovered. Each find from the Trust's excavations now reaching the Yorkshire Museum, however mundane in character, comes properly marked with the layer number from which it was recovered, so that it is possible to identify all the other material originally associated with it and, by means of large numbers of comparisons between the products of even/ layer, to calculate the relationships between each of them and their overall significance.

While it has received none of the publicity lavished on the more impressive monuments discovered in recent years, this quiet revolution in post-excavation methodology has resulted in a transformation of museum collections from

visually striking but academically limited phenomena to really useful research tools capable of meaningful interpretation and indeed of infinite reinterpretation in the light of new advances in knowledge. A further extension of this facility will be brought about when the principle of depositing in Museums along with finds the complete archive of the excavation (including plans, notebooks and photographs) is put into practice. (This principle was part of a whole new 'package' of proposals recently put forward by the Department of the Environment in its *Principles of Publication*, referred to in INTERIM vol 3 no 4 p 31.

While most archaeologists would agree on the desirability of this arrangement, there is as yet no national agreement on how the various excavating bodies should be related to the museums. The museums themselves are organized in a number of different ways, some being nationally administered, most of them coming under the local authorities, but all looking ultimately to the Department of Education and Science for funds. Overall responsibility for excavation, on the other hand, lies with the Department of the Environment. Increasingly it is the permanent excavation units which account for most of the Department of the Environment's expenditure, but these may be run by national government, by one or more local authorities, by development corporations or motorway construction projects, or they may be constituted independently of all these bodies. In one or two rare cases, they are administered by museums. In view of the widely-recognized suitability of the museums as the final repositories for excavated finds and their related archival material, it seems curious that most closely-linked organisations should be exceptional rather than normal.

The difficulties of transferring material from the excavating units to the museums are, in one sense, only symptomatic of a more serious separation, however, for the problems of moving individual members of staff within such a multiplicity of organisations are even more formidable. As a result, instead of a healthy cross-flow of staff between units and museums, which would ensure that the requirements of each were well understood by the other, the wide variations in terms of employment, salary scales, pension schemes, etc., act rather as a disincentive to the easy movement of personnel.

When we emerge from the present doldrums enforced by national economies, the archaeological professions in the field and in the museums could be prepared with plans to integrate more closely their present disparate hierarchies, initially, perhaps, with educational exchanges and sandwich courses between what are, in the final analysis, only two facets of a single pursuit. But having recognised the inseparable nature of the various aspects of the archaeological process, let us hope that these two complementary arms of the same discipline can eventually recognise the unsatisfactory situation caused by their own separation and work towards a truly integrated professional structure.

Arthur MacGregor

# SITES REVIEW

Work on the Bedern/Aldwark complex continues under Mike Daniell's overall supervision. This issue of 'Sites Review' for the Bedern foundry area is a salutary and apologetic one, as it is now clear that some at least of the information and interpretation presented in the last issue is wrong. In particular, recent work has shown that there was no 'domestic phase' preceding the foundry. and that, in fact, a foundry was probably the original use of the site, at least from the 13th century onwards. There is many a slip So here is the authorised and revised version!

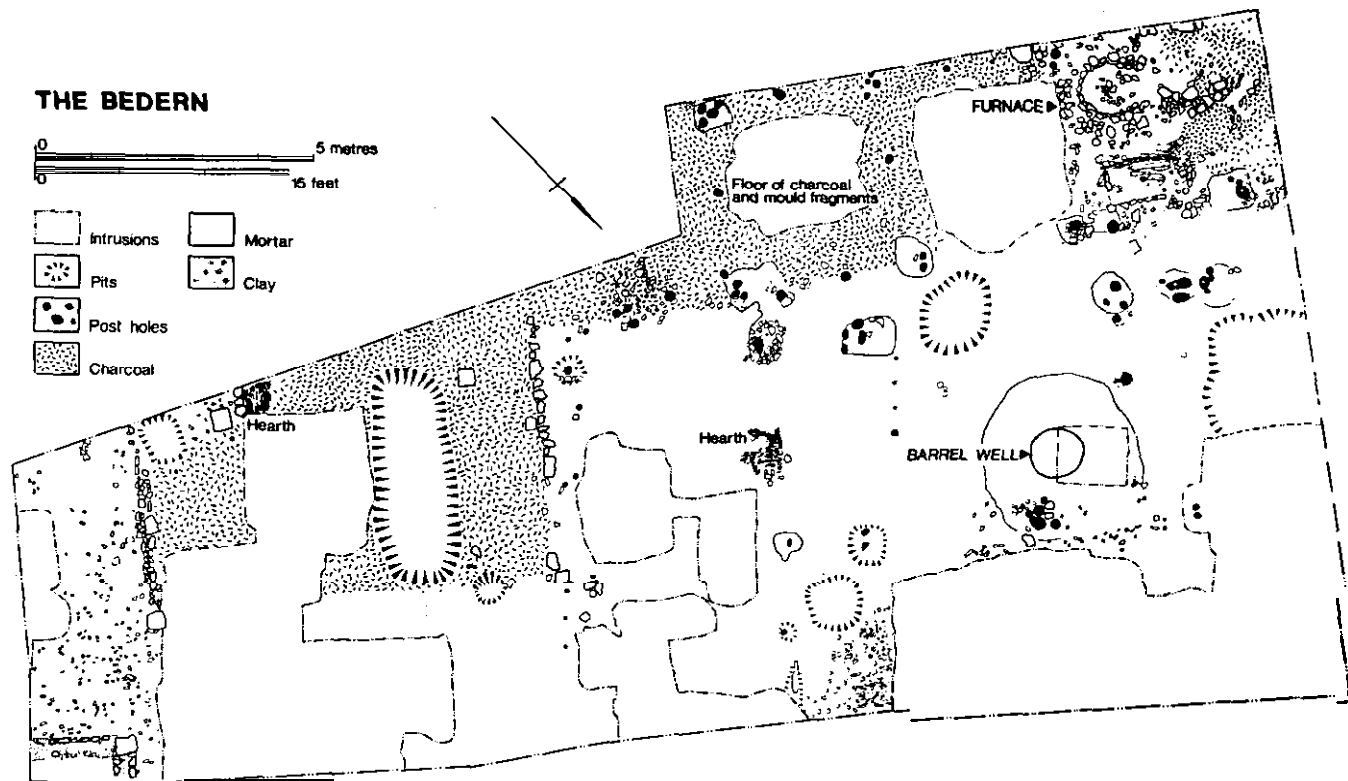
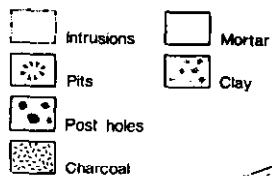
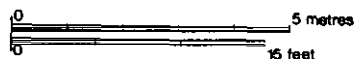
Work on the foundry area. under Ryszard Bartkowiak's supervision, is being concluded at 13th century levels, with a great variety of bronze-working surface and structures revealed within lightly walled buildings erected on a carefully-leveled-up floor. necessitated by a complex of large early 13th century rubbish pits beneath. The working surfaces of this phase have been preserved nearly in their entirety and variety, and incorporate a bowl-furnace. stone and tile-lined pits. three hearths, a barrel-lined well and a mould-lined pit, perhaps used for casting purposes.

Little of the walling of this date survived, even vestigially, as it had been obliterated during the course of rebuilding in the 14th and 15th centuries. As originally constructed they seem to have been based on substantial wooden posts set about 1.5m apart in large cobble packings: the intervening wall would presumably be of wattle and daub on a timber frame. A cobble "Sleeper trench" that would provide a strong and well-drained foundation to such a framing occurs as a partition wall west of the well.

The very lightness of this contraction was probably required during the period while the 60 or so cms of compacted sandy-silt put down to level the site for the central and S. buildings, was allowed to settle.

At the west end of the south building was a veritable hotbed of pyrotechnic activity, focussed upon a furnace consisting of an oval bowl with an incomplete western chamber forming its stoke-hole, the whole forming a figure-of-eight in plan. Before this colourful structure of red clay. purple cobble, yellow sand and black charcoal was ranged a tile surfaced hearth, and adjacent to the furnace a long shallow pit walled by courses of cobble and tile with a floor of wooden planks, maybe forming a fuel store.

# THE BEDERN



Bedern : the 13th -century timber phase.

A plan view diagram of a site. The diagram shows a large area with a dashed line boundary. Inside, there is a large area labeled "Charcoal spread" with a dense pattern of small vertical lines. To the left of this is a "Furnace" area with a pattern of larger, irregular shapes. Below the furnace is a "Clay floor" area with a pattern of small vertical lines. In the bottom center is a "Stone-lined pit" with a pattern of small circles. The diagram is labeled "Wall" at the top and bottom. There are also some small black shapes in the bottom left and bottom right corners.



**0                      1                      2 Metres**

Extending 10m eastwards are floor deposits of broken bronze-casting moulds consisting of fired clayey-sand. with some extremely large fragments resembling a plain, tall, narrow 13th or 14th century bell. A slightly more constructive re-use of casting moulds was made to the east of the central building where they were used to provide a fireproof and well-insulated lining to a long rectangular trench extending for nearly 4m across the whole width of the building. With its surrounding floor of compacted burnt sand, a nearby hearth and extensive spreads of copperstained manure temper for the casting moulds, this has been interpreted as a casting pit where the moulds for large vessels were heated before and during the casting process.

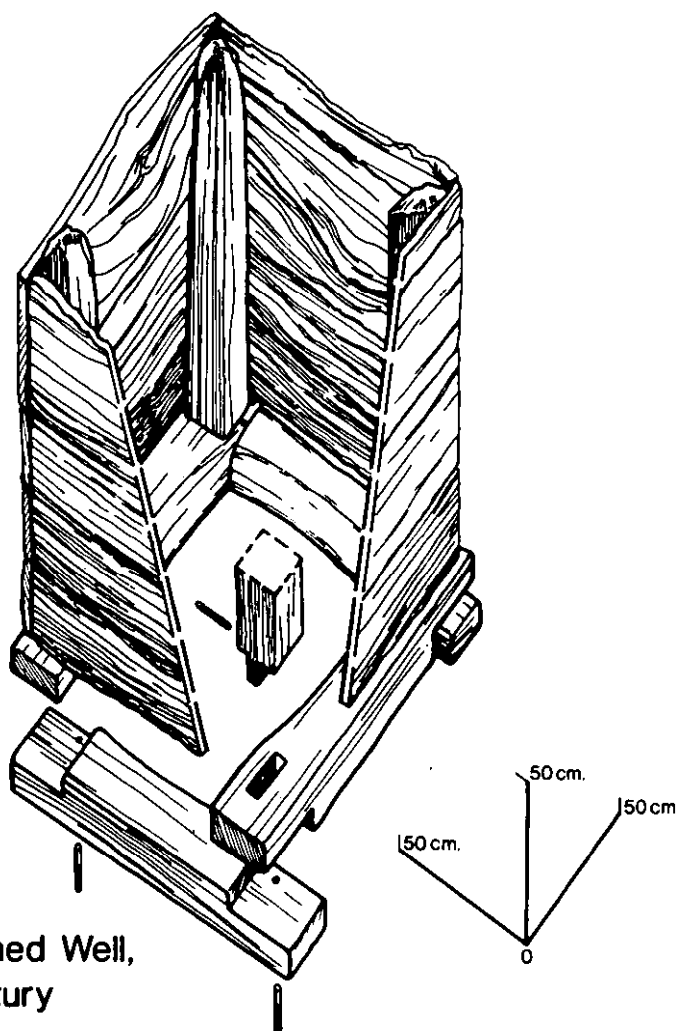
On the Aldwark site, which continues briskly under Heather Gibson's supervision, recent work has concentrated on a central deep trench, an area some 25m long x 3.50m wide, though the medieval building to the north-west of the site is still being excavated. Work within this structure now indicates a possible construction date within the 14th century. A succession of clay floors have been excavated, and there is evidence of some sub-division of the interior, notably a number of post bases. The internal arrangements of the building were obviously complex, and the full story of its development is going to be difficult to unravel.

In the central trench, work has revealed very interesting evidence concerning the pattern of late medieval land use in this area. Apart from the above-mentioned building, this area seems, apparently from the late 15th century, to have been essentially open land. given over for the most part to what is best interpreted as general dumping. To the north-east these levels cut through an extensive deposit of stiff clay, some 2m deep, which appears to form part of the large earlier feature, of as yet unknown function. extending perhaps as far as the city walls.

In the central part of the trench this same clay dump was cut by what ought to be the construction-pit of a timber-lined well, though this is not yet at all clear. The timber lining consists of four stout cornerposts morticed into equally stout square frames below. Large planks, obviously carefully cut to size, have been slotted in behind the posts against the surrounding soils. The well is over 2m deep, and it appears that it may go at least a little deeper. Pottery from its supposed construction trench indicates a date within the 14th century.

To the south-west of the well, two phases of occupational activity have been revealed. The latest of these, represented by a series of extensive spreads of crushed limestone and mortar. which were probably yard areas rather than internal floor levels, immediately underlay the vague features of the later periods. Beneath these, a number of burning levels were encountered, which seem to have extended to the Aldwark street frontage, and which are interpreted as the floors of a substantial building. Two robber trenches, at right angles to one another. and almost certainly representing the walls of this building. cut these levels. Several wooden posts and part of a beam located on the edge of the robber trenches may relate to a timber precursor.

## ALDWARE



Timber-lined Well,  
16 th. Century

Recent noteworthy finds include a complete medieval jug, a wooden box, and a leather knife scabbard, the latter decorated with birds and a fleur-de-lis design, probably dating from the 13th century.

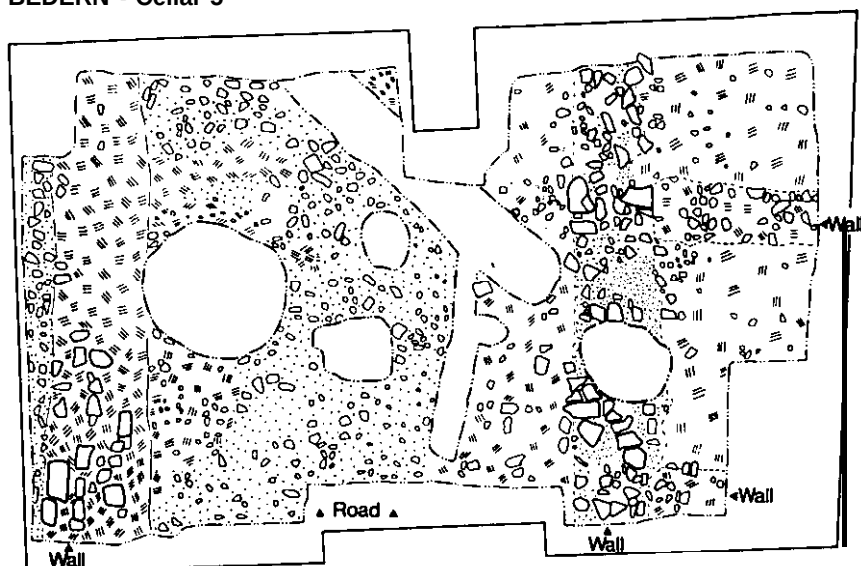
Excavation of the Roman levels in the area also continues apace, with all three modern cellars selected for excavation now having been completed. They have all produced a number of interesting results. Cellar 1, on the Aldwark street frontage, though badly cut into by modern intrusions, finally revealed that the stone building had, as suspected, a timber precursor. Removal of substantial deposits of very mixed clay, sandy mortar and general building debris, revealed a substantial feature cut into the natural, consisting of a linear cut, with regular vertical sides and a flat bottom. It was backfilled with a clean orange clay, itself very like the natural clay it was cut through, and has been interpreted as a slot to take a sill-beam for the wall of a timber building. It was on the same alignment as the stone wall, and just to the south-west. Finds from this final phase of the excavation included an almost complete ring-necked flagon of 1st-century date.

A similar overall picture, though rather more informative, was recovered from the excavation of Cellar 5, now under the guiding hand of Martin Stockwell a recent appointee to the Permanent Excavation team. Removal of the remains of the stone buildings revealed again an amass of mixed building debris, including in particular, extensive spreads of painted wall plaster, clearly the result of demolition. The plaster was particularly interesting. It was found with the painted face down, suggesting that the wall which it had once faced had been simply pulled over as it stood. The uppermost side still clearly showed keying marks. The painting consisted of red and black linear strips, but as the plaster was in too poor a condition to lift, nothing more can be deduced of its pattern.

Removal of this demolition debris revealed yet again evidence of timber precursors of the stone buildings. A series of timber slots have now been excavated, forming a criss-cross pattern over the central part of the excavation, the same area as was thought to have been occupied by some sort of thoroughfare during later periods. If this interpretation is correct, then again we have yet more evidence of an apparent replanning of the fortress layout (cf. INTERIM vol 3 no 4 p 24). These timber slots as excavated form a series of very small rectangular 'rooms', really too small to have been lived in. Thus, unless they represent a building of an unusual and specific type, it is probable that more than one construction phase is represented, though the evidence may not be good enough for us to completely unravel the picture.

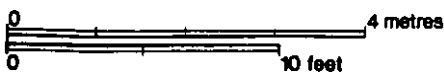
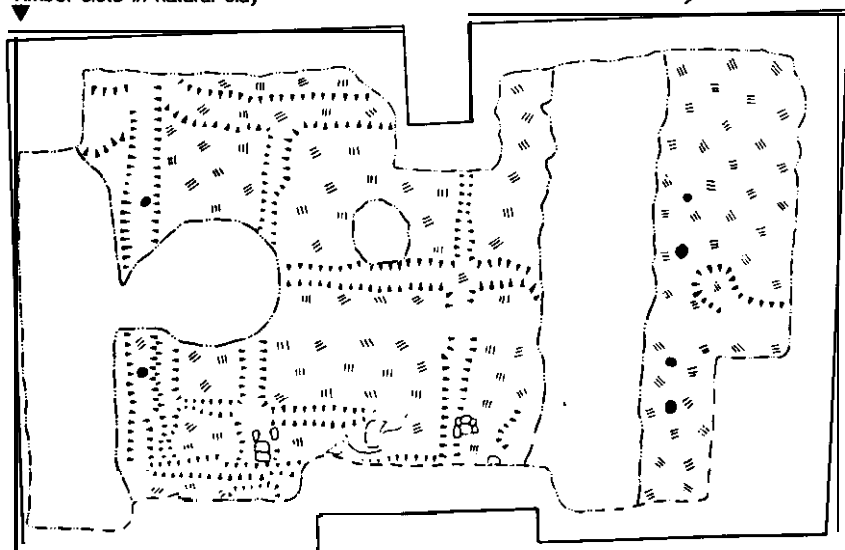
Finally, in Cellar 6, situated on the line of the fortress defences, continued excavation revealed a number of features cut into the top rear of the rampart. Notable amongst them was a wicker-lined pit, presumably for storage. Several other slot-like features were interpreted as part of the timber reinforcing of the rampart, and evidence was also recovered for an apparent heightening of the defences, with signs of at least one earlier rampart.

# BEDERN - Cellar 5



▲ Stone walls and a road surface

▼ Timber slots in natural clay



Excavation finally began on the Coppergate site on June 1st; 'Excavation' however is a dignified term, with connotations of trowel and brush, and nothing could be further from the reality of the initial sweat and strain. with pick and shovel and pneumatic drill, amongst the rubble of the demolition site which we inherited from the contractor. Fortunately, machinery in the shape of JCB did much to lighten the load and speed the clearance. and the Trust is extremely grateful to the firm of Claxton& Garland for their generous help in this respect.

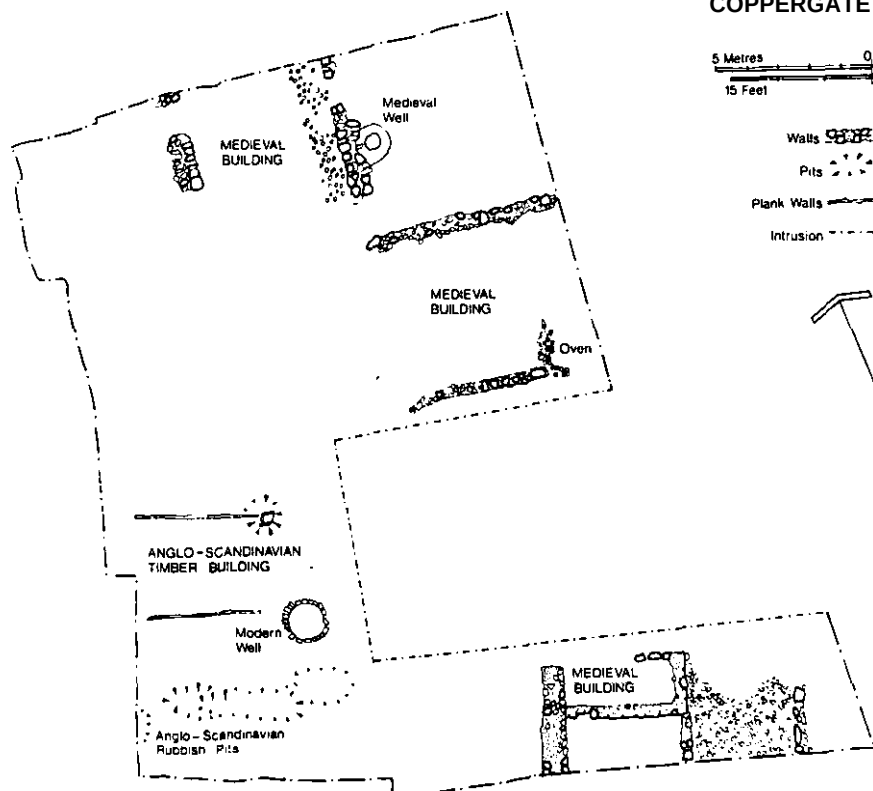
Although, as outlined in a previous issue (vol 2 no 3 p 14) the site is extremely large, work this summer will concentrate on the area nearer to Coppergate. and so the first job was to remove the cellar floors and foundations here. These intrusions had removed the bulk of medieval deposits here. and so the excavation immediately proceeded into levels of eleventh/twelfth century date. Only at the one spot near the front of the excavation had layers of later medieval date survived, and here a very small part of a medieval building represented by burned planking, probably from a floor. is currently being investigated.

This however is not the only medieval structure visible; parts of three medieval stone buildings, whose precise date and functions are at present unknown. can now be seen. In two cases only limestone foundations remain, but in the third, which is being excavated by York Excavation Group, patches of a rough cobble and stone floor survive. Since one side wall of this building, which obviously saw much reconstruction, lines up with a modern foundation trench which contains in its base a row of Viking-age posts, it may be speculated that property boundaries laid out in the Anglo-Scandinavian period survived into the modern period, a lifespan and continuity of a thousand years or more. In fact, on the basis of the layout of the medieval buildings it may be tentatively suggested at this very early stage that four Anglo-Scandinavian and medieval tenements may be contained within the site, stretching their narrow course back towards the River Foss.

The most exciting discovery to date is undoubtedly a small timber building, represented by posts and planks. These planks were first interpreted as a floor. but it is now clear that there are at least two phases of planking. The later one is indeed perhaps a floor, but the earlier, which is a unit of these planks batoned together and held with wooden pegs, was probably a length of walling, which now lies at an angle of 45° where it fell. These details of construction technique, which are all too rarely preserved, are precisely the sort of information that was hoped would come from the Coppergate site, and it is hoped that they are a portent of even better things to come. The date of the structure, it should be added, is a little problematic at present. but it seems to belong to the eleventh/twelfth centuries.

Amongst the range of small finds, which also promise to be prolific, there have already been several spindle whorls. a variety of bone comb fragments, and an assortment of glass beads.

## COPPERGATE



Plan of the Coppergate site in primary stage of excavation, showing the stone foundations of three medieval structures of 14th - 16th. century date, the most southerly having a cobbled floor, and the central one incorporating a brick-built oven. The 11th century building is represented by horizontal planks, cut at one point by a brick-lined well, and at another by a medieval rubbish pit in whose base part of the buildings sub-structure is already exposed.



Polychrome glass bead of we-conquest date.

On a new front, a rescue excavation at Clementhorpe under the direction of Sara Bishop started in August, in the hope of rediscovering a Roman mosaic initially unearthed in 1851, and of examining the remains of part of a 12th century priory known to have existed nearby. Following the metamorphosis of Sara Bishop into Sara Donaghey, her deputy Brendan Murphy has contributed these notes.

The mosaic was located originally after the Victorians made efforts to construct a saw pit. It was drawn and donated to the Yorkshire Museum, but was eventually covered, with the idea of lifting and displaying it at a later date. The discovery of the mosaic poses many questions regarding the Roman Colonia in York, as Clementhorpe is situated outside the wall of the Roman civilian town. It has been further suggested that this building may be more important than at first thought, and theories of an extra-mural Imperial Palace have been advanced. A pre-conquest and Norman village is thought to have given the area its name, but Clementhorpe is not mentioned in the Domesday Book.

St Clement's Priory, a small house of Benedictine nuns, was founded in 1130 and demolished around the time of the dissolution in 1536. Documentary evidence indicates that a small semi-rural village community existed probably to the south of these buildings whose church appears last in an Ordnance Survey map of 1852; and the ancillary buildings of a nunnery with its demesne and probably a monastic cemetery promised more archaeological potential in the area.

Upon the commencement of the excavation two trial trenches were cut by machine, generously lent by the firm of Wm Birch & Sons Ltd., to an approximate depth of one metre, and three skulls, a quernstone, several walls and a small portion of the mosaic, were unearthed. Subsequent area stripping revealed many features dating from the 3rd to the 17th centuries.

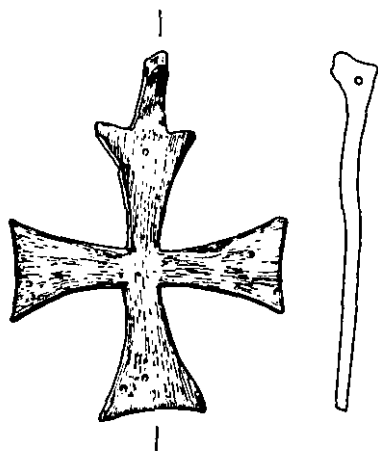
The excavated remains of the nunnery comprised a very substantial north wall and its associated interior floor surface. The wall was 1.35m wide, and massively constructed of neatly faced mortared limestone with a mortar and cobble core. The south face had been completely robbed, though the floor which abutted the wall survived in part. The square floor tiles had been removed, probably to be reinstated elsewhere, but the impressions of the tiles on their mortar bed were clearly discernible. To the west of these features, a one-metre-square stone feature was interpreted as a buttress and was probably contemporary with the nunnery, though its immediate relationships were almost entirely obliterated by the many inhumations on the site. The destruction levels of the nunnery's north wall and floor surfaces were cut by two lime kilns which have been approximately ascribed to the late 16th century, hence suggesting that the kilns were purpose-built for disposal of the very valuable limestone. The kilns are a good example of their kind and show the very slow and conservative tradition in kiln building techniques which remained comparatively unchanged since the single-flue pottery kilns of the Roman period. Those at Clementhorpe consist of

a firing chamber and a single flue both built with limestone from the ruined nunnery and Roman building, and serving a circular and sloping central chamber of brickwork, one metre in diameter. These probably had a dome-shaped <sup>super-structure</sup> best illustrated by the external ovens depicted in many village scenes by Pieter Breugel in the 17th century.

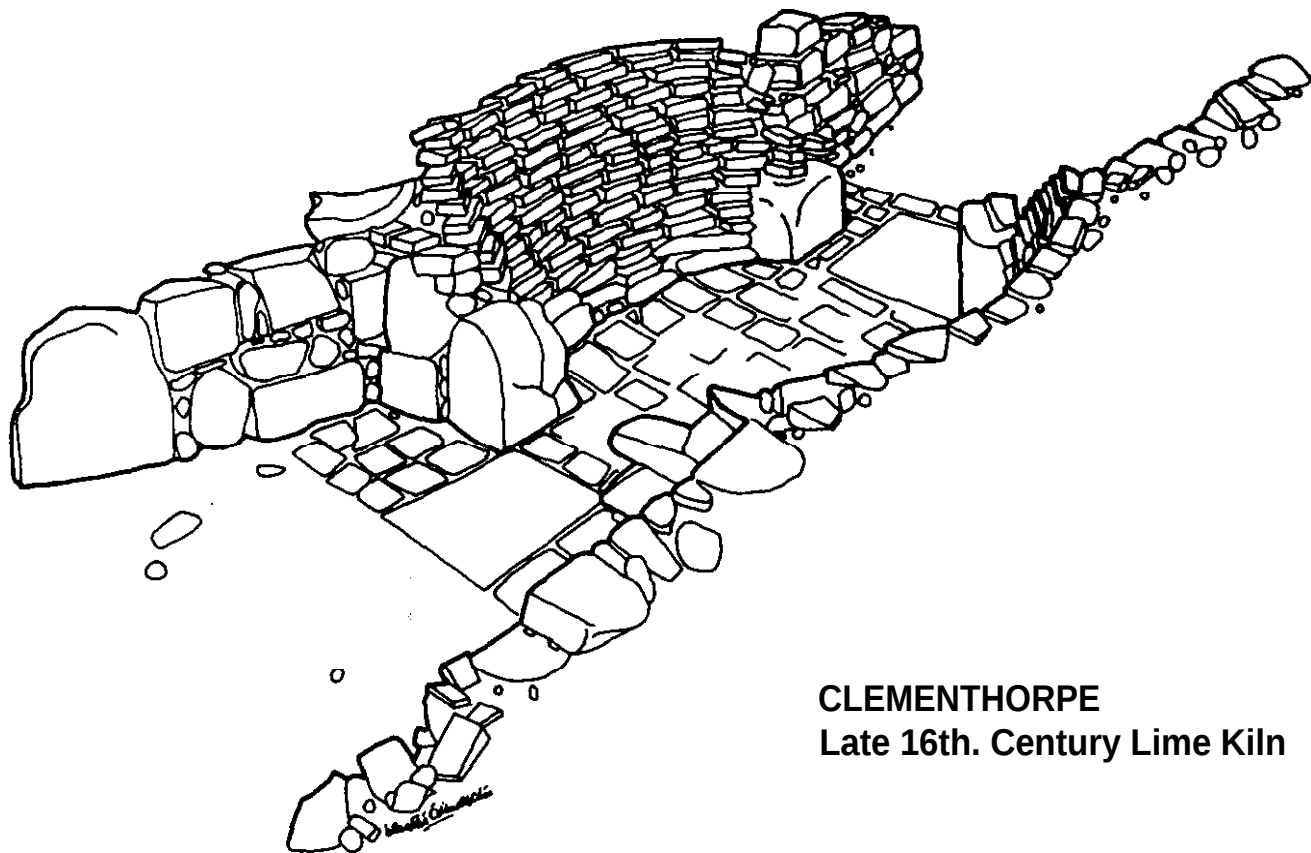
The medieval and Roman levels were both much disturbed by deep mass inhumation pits. A Roman cemetery did exist close the the site. but an accurate relationship between this and the burials at Clementhorpe is yet to be established.

The mosaic itself was soon located, sealed by modern debris, the fill of the 19th century saw pit. The design is of geometric patterns incorporating crescent shaper, knots, and an intricate interlaced border enclosing dances of ogees. In the next weeks it is hoped to trace evidence for the building of which the mosaic was just one feature, and for our progress in this venture, read our next issue.

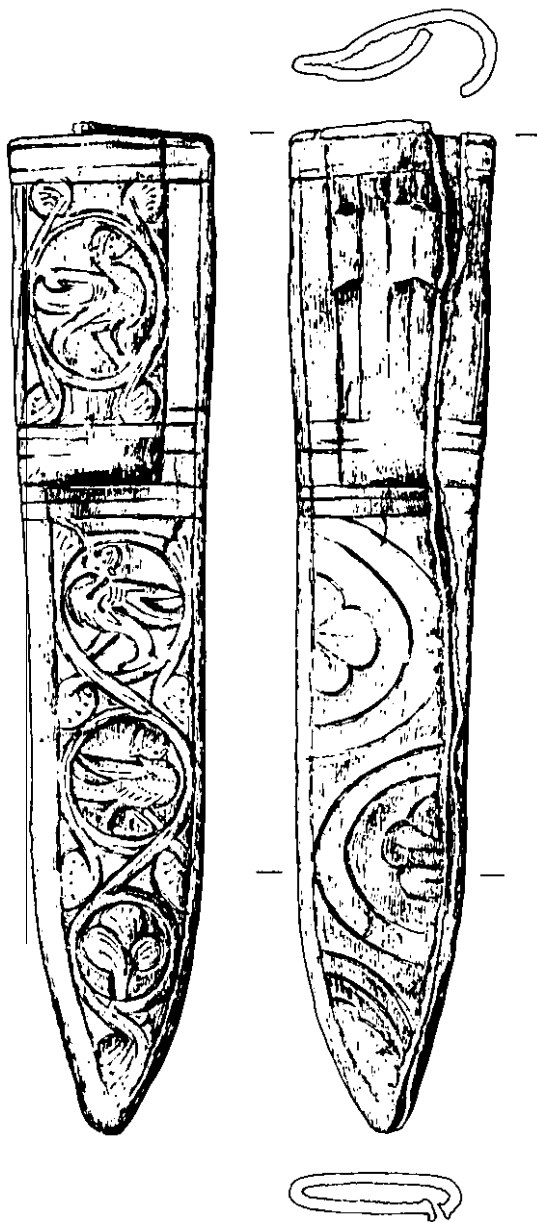
Last, but by no means of least importance in this Sites Review, we have to report a brief resumption of work on the Ebor Brewery site in Aldwark. Regular readers may remember our previous operations there, when, amongst other things, about hundred skeletons were rescued from a graveyard around the 'lost' church of St Helen-in-the-walls (INTERIM vol 1 no 3 p 13; vol 1 no 4 p 33). Analysis of these skeletons has already yielded a considerable amount of information about the anatomy of the medieval inhabitants of this area of York, but in order to make the conclusions more statistically acceptable, and to clear up some remaining problems (there appeared, for example, to be no infant burials present), more skeletons were required. During a month-long campaign a further three hundred were therefore carefully lifted. and we hope to have a report on the skeletal analysis in a future issue.



Lead-alloy maltese cross brooch from 13th century levels on the Bedern site.



**CLEMENTHORPE**  
**Late 16th. Century Lime Kiln**



Decorated leather scabbard for a knife, from the 13th century levels on the Aldwark rite.

# RING FOR ATTENTION



KNOCKER, ST. GREGORY'S CHURCH, NORWICH.



KNOCKER AT ALL SAINTS' CHURCH, YORK.

Almost in its every corner York offers unexpected treasures. Anyone who passes along Pavement will be struck by the prominent and delicate tracery of All Saints' Church. But the same church bears, on its north door, a treasure perhaps hardly noticed by the same casual observer. It is a bronze closing-ring, somewhat older than the present church. It certainly merits a detailed study.

As the illustration shows, it is a circular escutcheon hollowcast in bronze, depicting a fierce animal grasping in its jaws a person whose head protrudes beyond the muzzle. A bronze ring once passed through the holes made between the teeth; this has been lost and an iron one substituted. The eyes are also holes. The plate, with shallow incised foliate decoration round the circumference, measures 23cm. across and has four holes equally spaced at top, bottom and sides to secure it by bolts. Unhappily for York, it is not unique. Two closely similar ones exist at Adel, near Leeds (the most perfect example) and in the Castle Museum, Norwich, formerly on St. Gregory's church (the ring also lost). They all appear to date from the 12th century. Whether the York one, or any of them, was made in York, is another matter; but there was certainly bronze-working in the city (see INTERIM vol 3 no 4).

What do these objects signify? As to appearance, there are various interpretations. Angelo Raine (Medieval York, 1955). noting the two others, calls the York one the head of a dragon grasping the face of a woman. Elsewhere the beast is identified as a boar or a lion. As to function, because of the familiar and well-documented example on the south door of Durham Cathedral, by grasping the ring of which a fugitive from justice could claim the right of sanctuary, any such objects are popularly called sanctuary rings or knockers (the technical term is *hagoday*). But only a few major religious foundations were openly proclaimed as sanctuaries or asylums. Although a refugee could take sanctuary in any church (for forty days, during which forcible removal of the person would constitute sacrilege), this was theoretically held to be effected as soon as he entered the precincts of the church, this space often being precisely defined or even denoted by standing crosses, walls or boundary ditches. So there has been controversy over whether such objects as the rings or knockers were specifically connected with the right of sanctuary. Obviously a ring on the door would be a focal point for a desperate fugitive, who would cling to it and hammer for admittance if his pursuers followed him through the precincts. Whatever the theory, in the popular mind sanctuary might not be secured until that ring was firmly grasped. But it is perhaps better to call the objects, generically, closing-rings, by which the door could be pulled shut, some serving also as recognised hagodays, and many being popularly so regarded.

What about the design? In all these specimens there is little doubt that the beast is meant to be a lion. Only three like this, with the protruding human head, are known to me. But the lion's face alone is sometimes represented. The Durham hagoday itself (c.1140) is an example, though grotesquely human in aspect. A design more like the York one (without the human head) occurs on a closing-ring in Hastings Museum, formerly from Rye or Playden, Sussex. Others are known throughout Europe—in France, in Poland, at Mainz in Germany, even in Dubrovnik. Yugoslavia. All conform to the same circular design, with spreading mane, some with surrounding foliage, some without. They date variously from the 12th to the 14th century. In England, similar ones are said to have existed at Wenham (Suffolk). Hexham, and Cockington near Torquay. Of course, other designs with semi-human or fantastic monsters exist, as at St. Nicholas' church, Gloucester. which, with a distorted upside-down human face above and behind the monster, may actually be attempting to depict a fugitive escaping into the church.

More importantly, this design is not merely decorative, but also symbolic or iconographical, like so much pictorial or sculptured material in medieval churches. When Raine called the All Saints' example 'a little Doom, a miniature 'mouth of Hell', he was not far wrong. For the lion represents the Devil, and his grasping a human being represents his claiming the soul of a damned person. Since the connotations of the lion are now usually qualities like nobility and bravery (as in heraldry and proverbs), this may seem surprising. In early Christian symbolism, however, an object could be ambivalent in its significance.

St. Augustine (On *Christian Doctrine*, 111.25) points out that the things signified may be contrary 'when one thing is used in a similitude in a good sense and in another place in an evil sense. This is the situation where the lion is used to signify Christ, when it said, "The lion of the tribe of Juda has prevailed" (Apoc. 5.5). but also signified the Devil, when it is written, "Your adversary the Devil, as a roaring lion, goeth about seeking whom he may devour" (1 Pet. 5.8). No doubt the stories of Samson and Daniel, who combatted devouring lions, reinforced the evil sense. The lion was more often interpreted in the good sense in the Bestiaries, those medieval zoological manuals in which the physical habits of animals (as the Middle Ages understood them) were allegorised or moralised. For instance, it was a symbol of the Resurrection because of the belief that lion cubs were still-born, being raised to life by the lion's roaring after three days. The lion was also said never to close its eyes, a belief perhaps engendered by its nocturnal habits. This image was used to symbolise the Resurrection particularly in Byzantine and Russian art. The lion could also represent the Incarnation and the Divine Mercy. And we must not forget that it is the symbol of St. Mark.

But Romanesque artists seem frequently to have preferred the evil lion. We may note, too, that such symbols most often occur on the *exterior* of the church, for the sombre Romanesque mind regarded the church as a fortress against the spiritual perils of the external world, an attitude expressed in the massive architecture itself. So the motive for placing such symbols there was to remind the observer of the power of the Devil, and the security within the church. There is an extra point in placing the symbol on closing-rings, if they were to be used for gaining sanctuary, for it could warn the fugitive not to undertake his act lightly, or with deceitful intent. Apart from closing-rings, the same motif of the lion (Devil) devouring a human being (soul) occurs in sculptures over the portals of some Romanesque churches in Lombardy. Sometimes the pillars of a doorway rest upon a lion's back, a feature common in the south of France and in Italy but rare in England. Here the lion represents the Devil overcome by the power of the church.

The same impulse of warning against the forces of darkness may be behind the monsters on the arches of doors, or tympana, and in the corbel-tables under the eaves (projecting stones to carry the gutters), later elaborated by Gothic sculptors into gargoyles. Once we begin to relate the lion closing-rings to these in order to place them into an artistic context, or to recreate the milieu that produced them, we find ourselves in a very confusing half-light, half-dark world of myth, linked with the diffusion and mixture of pagan divinities. For whatever the specific Christian symbolism of the lion, the folk-lore of the ravaging creature, which recedes into remote antiquity, must have had an influence on the representation, and on the contemporary viewer's understanding of the object. Devouring creatures are very common in sculpture from pre-Christian times, not only in secular buildings, but in churches inside as well as outside, on the capitals of columns, on fonts, and elsewhere in the structure. Some devour heads, some belong to the type generally classifiable as 'biting beasts,' either

snarling bare-toothed or grasping something in their mouths, often the very stone or column supporting them, as if intent on destroying the fabric itself. They are malevolent in expression. In northern Europe their presentation may be influenced by the Germanic concept of the biting beast that is so widespread a motif in Scandinavian and Anglo-Saxon art, especially sculpture and jewellery -as in the Sutton Hoo treasure, the figureheads on the prows of warships, and the business end of the serpentine creatures in Viking wood carvings and the dragons in Anglo-Saxon illustrations. These forms descended to the medieval Hell-mouth, the open jaws of the monster through which the damned souls passed to the Devil's dominion, as shown in manuscript illustrations and represented in the mystery plays (as at York, of course) as late as the 16th century. A related form is the beaked head, sinisterly bird-like but often with characteristics of other creatures. This may be of Celtic origin with the Germanic folk-lore of birds of prey. They occur on English Romanesque churches in profusion.

Perhaps the best-known example, where pagan and Christian, native and imported, influences come together in a wealth of sculpture, some suggesting traditions or a mythology now lost to us, is Kilpeck church in Herefordshire. But for a final illustration of the standard of art which the ravening monster motif could inspire, where better could we go than nearer home, in Yorkshire? Adel church itself, with one of the lion closing-rings, also has a splendid series of beak-heads and biting monsters on the internal chancel arch and the external corbel-table; while Healaugh church, even closer to York, has comparable examples on the external door arches and capitals. They remain as potent symbols of the powers of evil as ever they were, and we of the arrogant 20th century may perhaps not only still appreciate them, but need them more than ever.

Brain Donaghey

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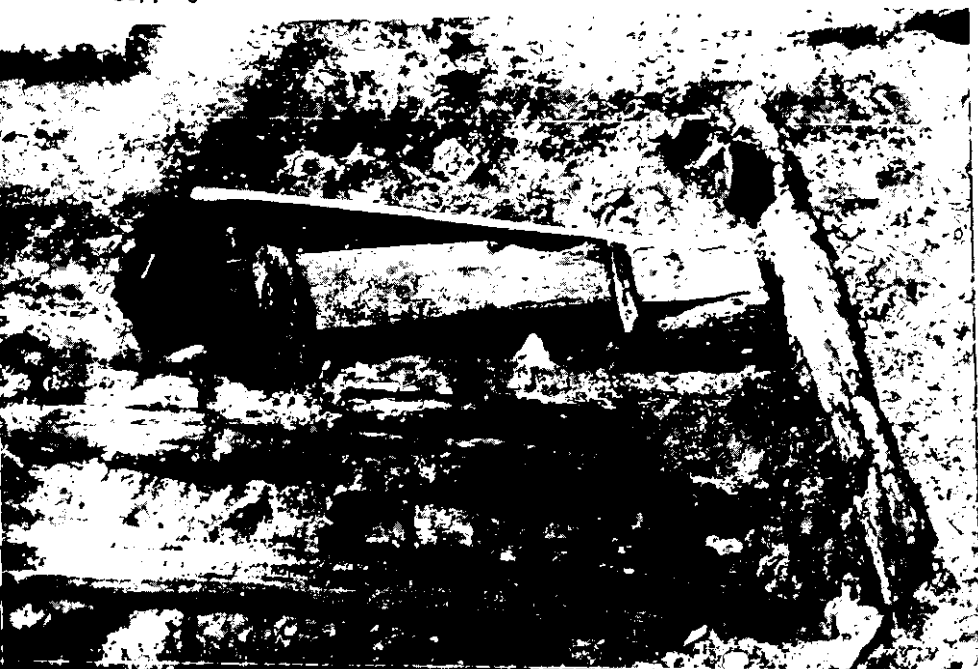


Knocker at Adel church.



Coppergate: detail of construction techniques in an 11th century building.

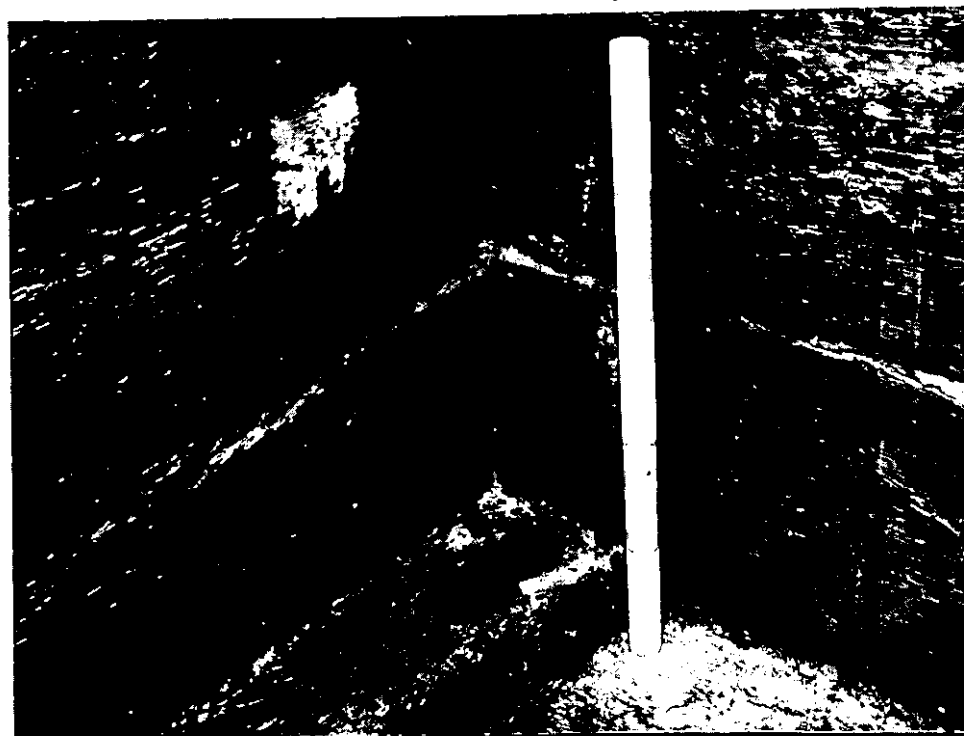
Coppergate: an 11th century timber building starting to emerge.





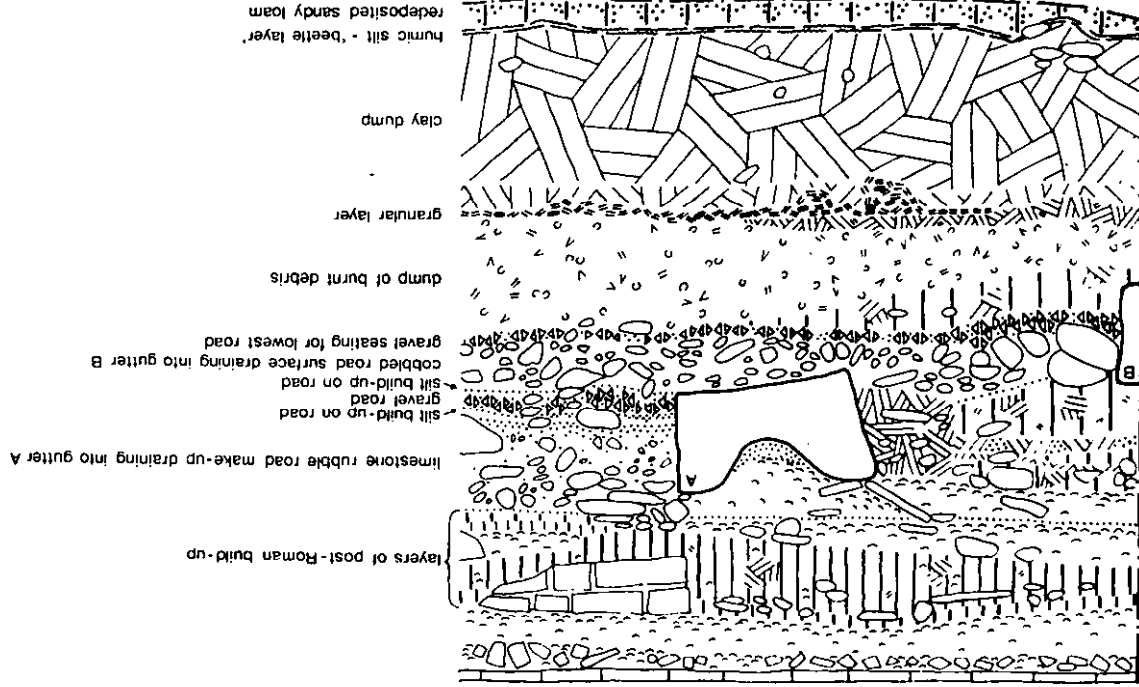
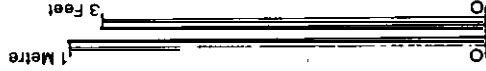
Clementhorpe: the Roman mosaic pavement as finally uncovered.

Aldwark timber construction details of the 16th Century well.



# W.H.SMITH

Annotated section through the Roman levels at W.H. Smith, Coney Street.



# GOLDEN OLDIE

## W.H.SMITH



The excavation on the site of W H Smith's new premises in Coney Street took place in the summer of 1974 and January 1975. At this time Trust resources were stretched to the limits (when, indeed, are they not?) and so instead of the extensive excavation which would have been our ideal, we had to be content with digging very small sample areas throughout the property. Whilst important medieval and post-medieval discoveries were made at the site's centre and river frontage. Roman occupation, which we shall concentrate on here, was only encountered near the modern street frontage.

Here, in the modern cellars which had removed virtually all traces of post-Roman activity, two small trenches were opened only a few metres apart, separated by one of the cellar's cross-walls. Yet despite this proximity, it is difficult to correlate the remains found in each, a salutary comment on the 'box' system of excavation. Nevertheless, the history of the area's development throughout the Roman occupation emerges fairly clearly.

Working backwards chronologically, that is to say, describing the features in the order in which they were encountered in excavation, the latest Roman features, of late fourth century date, were a series of road surfaces. These belong to the road, investigated under less advantageous conditions in nearby Spurriergate in 1959, which ran across the front of the Roman fortress, between the fortifications and the River Ouse. It had apparently been first laid down in the Middle of the third century, with massive gritstone gutters along its edge, and as the level of the street rose due to successive resurfacings, some of the gutters were dug out and rebbed at the new level.

On the river side of the road, this resurfacing went hand in hand with a slight shifting in the road's course, caused by the erection of structures which encroached on its earlier limits. Only a very small part of these buildings lay within the excavated area, and so their purpose is unknown, but at a guess they might have been very flimsy roadside booths, selling necessities to the throngs who must have used this important street.

The laying out of the road and its attendant features had marked a radical change in land-use on the site, for below it we were a series of building. The latest of these is the most shadowy, attested only by a single length of wall footings running across the excavated area, but levels which seem related to it are of mid second-early third century date. There was no sign of any demolition or destruction material signifying the end of its life, and the conclusion must be that it was carefully dismantled to make way for the road.

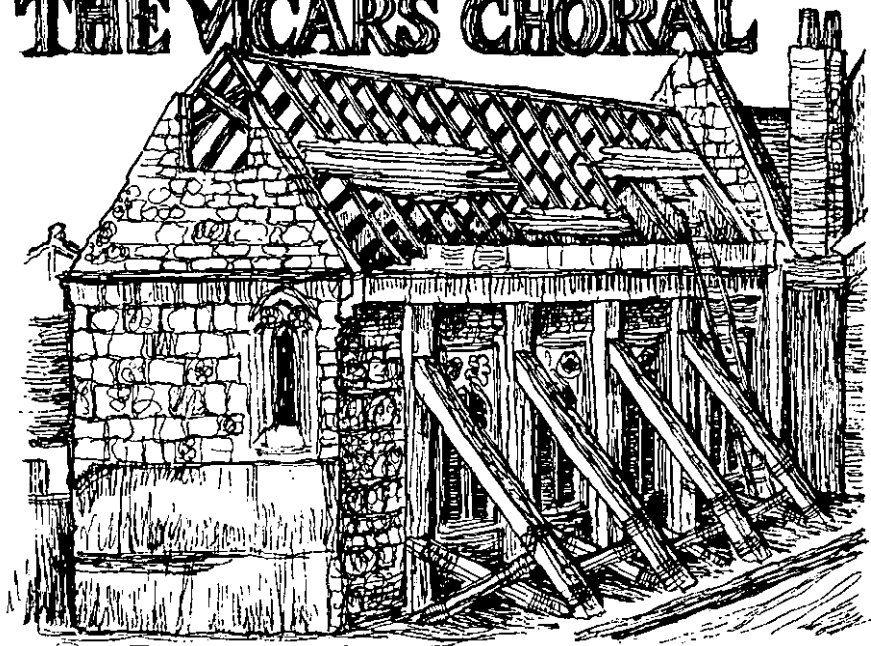
With the two below it we are, however, on firmer archaeological ground. The remains of the second of these had been sealed by a layer of burned debris, but the evidence suggests that this may have been a dump of material brought on to the site from elsewhere to level it up, rather than being the result of a fire on the site. Below this material, quantities of grain were found in a series of parallel slots interpreted as joist seatings for a raised plank floor, and this suggested that the structure had been a grain storage warehouse. This was confirmed by the evidence from the building's predecessor, a structure also represented by joist slots, although here a few very decayed timbers did survive. The most important evidence, however, was that provided by the microscopes of the Environmental Archaeology Unit, for deposits associated with the building contain the remains of literally millions of grain beetles, witness to a terrible infestation which had caused the Romans to dump a thick layer of clay on the site before erecting the upper warehouse.

Dates for these two structures are in the periods 70-90 AD, and the early second Century respectively, but even they do not represent the earliest activity on the site, for below yet another dump of clay was a single ditch, on the same alignment as the Roman building above it. Because of this, it is assumed that the ditch too is of Roman date, although no objects came from its fill, and its function is a mystery.

In retrospect, the Smith's site has provided striking evidence for the development of a part of the Ouse frontage, an area very close to the fortress, which must have been of considerable importance to the military garrison. The site's excavation poses new questions – how extensive, for example, were these early Roman warehouses; did they simply move little along the river frontage in the second century and later, or were they replaced by dock facilities already known from the River Foss; what functions did the later buildings on the site fulfil? The answers will only come from further and more extensive excavation in the vicinity, but at least the Smith's site has re-opened our eyes to the immense gaps which remain to be filled in unravelling the history of this area, and the exciting evidence which awaits our trowels.

Richard Hall

# THE VICARS CHORAL



## The Vicars Choral of York and the Bedern

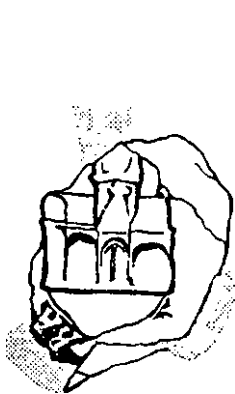
'The same college is nyghe the close of Yorke. The necessitie thereof is that all the vicars choralles, beyng daylye mynisters in the said metropolitane church of York, may lodge and go to comons in the saide college together, nyghe unto the same church, and not in severall places abroad in the cytie of Yorke.'

(Report on the Bedern by the Chantry Commission, 1546)

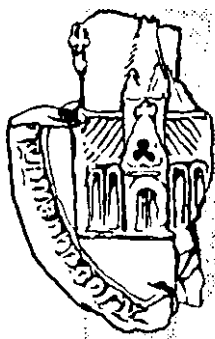
The area which since the thirteenth century has been known as the Bedern lies behind the junction of Goodramgate and Monkgate. and is bounded to the east and South by Aldwark and St Andrewgate. The first recorded appearance of the name (which also occurs at Ripon and Beverley) comes in 1275, when an inquisition was made into the lands which formed the 'Liberty of St Peter', the property, of York Minster. The derivation of the name (probably from the Old English *'gebed'*, prayer, and *'aern'*, house.<sup>1</sup> suggests that it was first applied to an ecclesiastical establishment. though at what period of history we do not know. There is no documentary record as to what type of building occupied the site before c.1248; but from that date until 1574 this area, now under excavation by the York Archaeological Trust, housed a whole community. a group of men on whom much of the day to day running of York Minster depended, the Vicars Choral. The present article is intended to provide a short historical introduction to this important group of *'ministri inferiores'* of one of the greatest of medieval England's nine secular cathedrals.

The connection between the vicars choral and the Bedern began a few years before 1250 when William de Laneham, a canon of York Minster, bequeathed land on the site for the foundation of a college. It was the first of its kind in the country, to be followed by St Paul's, London (1273), Lincoln and Lichfield. The foundation of the York college was ratified c.1252 by Archbishop Walter de Gray and by the dean and chapter, although it was not formally incorporated by royal charter until 1421. Thus we may say that the year 1252 marks a turning point in the history of the vicars choral; indeed it signified the beginning of their history as a separate corporation. Unfortunately the sources for the development of the vicars choral are as scanty before 1252 as they are abundant after that date. However a full appreciation of the functions and importance of these men makes it necessary for us to take as our starting point at least a century, perhaps longer, before the Bedern became their home.

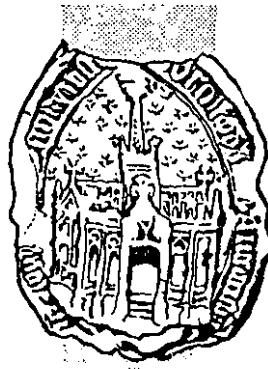
Quite when the first vicars choral were appointed to the Minster is unknown. An isolated 'vicarius Sancti **Petri**' makes an appearance as a witness to a charter of the period 1145-53, and several more occur before the close of the twelfth century. In origin these men were, as their name suggests, deputies, who took the place of the canons of the Minster during their absence, thus ensuring the continuity of divine worship. Canonical non-residence was a problem which confronted all medieval cathedrals, since those appointed to the office of canon often had interests outside the cathedral church. A notable instance of this problem is afforded by the prebend of Bramham, which was granted by Archbishop Thurstan of York (1114-40) to the Augustinian priory of Nostell. From that date onwards the priors of Nostell took their place in the York chapter, yet it is inconceivable that such prelates could adequately fulfil their duties as canons. It was to meet situations such as these that the idea of appointing a personal deputy for a non-resident canon emerged.



c. 1242



1316 to 1411



1492 to 20th century

Three seals used by the Vicars Choral of York, showing a possible stylised representation of the Minster. Copyright Dean and Chapter of York.

If war was a slow development. As Dr. K. Edwards has pointed out in *The English Secular Cathedrals in the Middle Ages*, the appointment of a vicar depended in the first instance on the ability and inclination of a canon to allot a proportion of the revenue derived from his prebend for the maintenance of a deputy. Furthermore, although in later times the value of the York prebends was on average higher than at any other secular cathedral, the prize of many a royal and papal nominee, in the twelfth century canons were probably less financially secure. The number of canons in existence by 1252 is unknown, but after 1291, when it became compulsory for every canon to provide a deputy, the number stabilized at thirty-six. It remained at this number until the late fifteenth century, making York the fourth largest secular cathedral in England, being surpassed by Lincoln (with fifty-eight canons and vicars), Wells (fifty-five) and Salisbury (fifty-two).

The concept of the vicar as the personal deputy of the canon never quite disappeared, but the bond was inevitably weakened by the foundation of the Bedern college. Even before 1252 there were signs that the vicars were thinking of themselves as a community. In 1230, for instance, they are found using a common seal. However, the recognition of the college by Archbishop Walter de Gray was significant in several ways. Firstly it established the right of the vicars to security of tenure – they could no longer be removed by the canons at will. Although the canon was still financially responsible for the maintenance of the vicar, his contribution was paid into a common fund administered by the head of the college, the ‘succentor vicariorum’. Finally the vicars were allowed to acquire and administer property, and both their cartulary and their lease books bear witness to their activity in this field. The independence of the vicars’ choral from the canons was not achieved without a struggle. In particular the years 1344-47 saw several attempts by the canons to challenge the claims of the vicars to security of tenure, to be judged for their misdemeanors by their own number or by the archbishop, to receive forty shillings per annum from each canon, and their prerogative of dining with the resident canons on the greater feast days. All these battles had to be fought and won before the autonomy of the vicars’ choral was recognized.

The site of the college (extended in 1335 and 1396) lay about one hundred and fifty yards from the east end of the Minster, allowing the vicars easy access to their place of work and worship. The college precinct itself contained a chapel, a common hall, a separate dwelling or ‘*cubiculum*’ for each vicar, and a common orchard. Expenses incurred during the building of the chapel are recorded in the account rolls of 1328-29 and the completed building (unfortunately destroyed as late as 1961) was consecrated in 1349. The hall was of an earlier date, since the same rolls mention repairs to the fabric. After the late sixteenth century, when the vicars ceased to eat together in the hall, the building became costly to maintain, and in 1769 it was sold to Thomas Waud of York for £150. (See

INTERIM vol 3 no 4 pp 5-8). It is not known when the '*cubiculi*' were first constructed. but the records make it clear that by the mid-fourteenth century each vicar had his own chamber. The community was jointly responsible for the cost of repairs to the houses, but attempts were made to ensure that each vicar left his house in a reasonable condition for the next occupant (in 1360 for example, it was decreed that no vicar should remove any writing desk or window from the house he occupied).

On entering the college a prospective vicar was examined as to both his musical ability and his moral fibre, to ascertain that both were fitting for the office he wished to assume. The musical talents of the vicars were guided by the precentor of the Minster. and a weekly was held at which instruction and correction took place. Attendance at services was compulsory. and exceptions were made only when reasonable cause could be shown. From 1291 onwards it was laid down that for each absence he was to be fined the amount. The medieval records are full of complaints about the negligence of certain vicars. In 1472, for example, it was reported that vicars were frequently absent from services ('at matins it is difficult to find four (vicars) on each side (of the choir)'), that they were slack in their singing ('those processing into the choir sing discordantly') and frequently lacking in devotion. More reasonable behaviour was expected of those entrusted with the central part of the cathedral's life, its worship.

Reasonable standards were also expected in discipline, both in the private and the collegiate life of the vicars. Reading through the medieval records, in particular those of the ecclesiastical courts, one cannot fail to notice the great number of occasions on which vicars were called to answer charges of immorality and negligence. In an attempt to ensure the maintenance of moral standards, vicars were forbidden to go into the city. and in the reign of Richard II permission was obtained for the construction of a covered passageway leading from the Bedern across Goodramgate, so that the vicars would not have to venture across the street when returning from the night services. Such precautions were not always successful. On occasion it was found that 'the gates of the vicars in the Bedern are not always locked promptly at night, but are left open until 10pm to the great danger of the vicars': in 1472 John Fell could 'Stroll abroad like a night walker, rarely entering the Bedern before 10pm'. Charges of adultery and immorality were common. The notorious William Benesleve made six appearances in court within eleven years on such charges. and William Esyngton was similarly accused six times, on each occasion failing to clear himself of the charges. It is clear, however. from the surviving lists of vicars choral, that the majority came from York and its immediate vicinity. Local connection must have been an encouragement to spend time away from the Bedern: the overtones are not necessarily sinister.

These were not the only problems of discipline. There were accusations of neglect of collegiate life. John Fell, vicar, and his companions were found in 1472 to be inattentive during the nightly bible readings in the common hall 'but

sitting by the fire they chatter throughout the time of reading'. Other vicars were accused of provoking discord in the college, of conspiracies and of slandering one another – all apparently quite normal features of communal life. It would of course be rash to conclude that the college of vicars choral was in a state of permanent moral decay throughout the middle ages. The complaints were made against (admittedly numerous) individuals but they are not representative of the entire group. Naturally this type of record does not note the ceaseless performance of their duties by diligent vicars throughout the years.

The daily life of the vicars revolved around the seven canonical hours; certain of the brethren, however, had other functions to perform, duties which were necessary for the smooth running of the college. From the abundant records preserved in York Minster Library (the cartulary, lease books, chamberlain's rolls, the Kitchen Book, the accounts of the bursars and stewards from 1563-1574 and much miscellaneous material) it is possible to reconstruct the pattern of administration in the college. From 1252 the head of the college was the 'succentor', but in the fourteenth century four other offices developed. The bursar collected the forty shillings per annum due from each canon for the common fund; and the steward, and office held in rotation for periods of two weeks, bought food for the community. His expenses, contained in the Kitchen Book, also tell us of the diet of the vicars. In one week in 1562 the menu included chicken, beef, venison and mutton. The maltster was responsible for the purchase of barley and malt, and supervised the brewing of ale. Finally, the accounts of the chamberlain bear witness to the activity of this officer in collecting the rents from the property of the vicars, both inside and outside the city of York.

The vicars enjoyed three sources of revenue: firstly the common fund; secondly revenue from three appropriated churches – Fryston, Huntington and St Sampson's, York, granted to the vicars on account of their poverty in 1332, 1351-2 and 1396 respectively; and thirdly the rents derived from property. The rent rolls and lease books are of immense value, not only for the history of the vicars choral but also for the descent of property in the city of York. The rents acquired were subject to fluctuation year by year, as were the number of properties which yielded rent. Generally speaking rents increased during the fourteenth and early fifteenth century; thereafter there was a decline. The properties themselves were widespread. In 1361, to take a random example, houses were owned in Goodramgate, Stonegate, Petergate, Mountsorrell, Micklegate, Aldwark, Monkgate, Jewbury, Bretgate, Layerthorpe, Coney Street, Haymangergate, North Street, Bootham, Skeldergate, Muscotes, Hertergate, and Patrickpool.

However widespread their influence as landlords, the vicars choral were subject to financial difficulties, and it was these that caused the decay of the college. In the *Valor Ecclesiasticus* of 1535 the net income of the vicars was assessed as £255 per annum (compared with Lincoln £358, Salisbury £272, and Wells

£100). The chantry commissioners of 1546 reported of the Bedern that 'the fundacion of the same is obseryed and kept in all poyntes, savyng ther lacketh xvj persons of the said number of xxxvj, whereof the said college is incorporate, th' occassion there – of is by reason of the decaye of lander and revenues of the cytie of York, neyng sore in ruynes and decaye'. Six years later Archbishop Holgate ordered the full resumption of common life at the Bedern, but the changing religious climate in addition to financial inadequacies made it impossible for the college to attain its former status. In particular the marriage of at least some of the clergy led inevitably to a breakdown of collegiate life. A memorandum contained in the Kitchen Book notes that '(the) brethren and felowes of the colledge called the Bederne did geve upp howse keepinge toget (her) in the hall this weeke uppon Saturday the xxvii day of June Anno dni 1574 by all ther consents for as long tyme as they shoulde thinke goode thereof'.

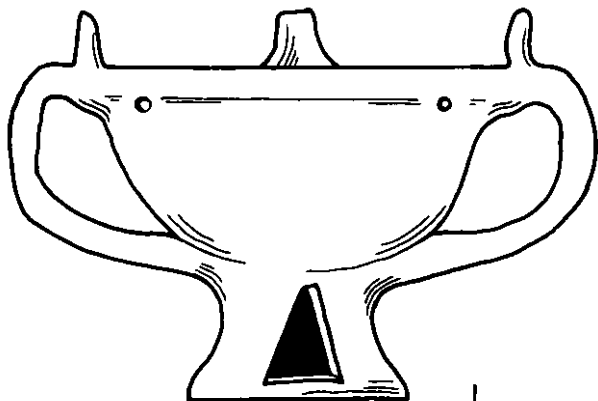
The property of the Bedern remained in the possession of the vicars until 1868, though most of the houses were leased to tenants. The vicars choral themselves were not disbanded until 1936. However it seems appropriate to conclude this all too brief survey of the life and functions of the York vicars choral in 1574, when collegiate life at the Bedern came to an end.

Architectural and archaeological remains of four other medieval colleges of vicars choral have been investigated. In 1959 W A Pantin summarized the existing evidence at Lincoln, Wells, Chichester and Lichfield. (*Medieval Archaeology*, 3, pp. 24749). Each college showed a variant plan. Lincoln, begun in 1310, was planned around three sides of a courtyard and each vicar probably had a separate dwelling. The college at Wells, constructed c.1347 showed that houses were arranged around two sides of a yard and provided 'a superior kind of accommodation.', with each vicar having a two-storey house. Lichfield and Chichester, both begun in the fifteenth century, displayed individual dwellings, and at the latter it is suggested that these replaced an earlier common dwelling. The excavations, to be undertaken within the precinct of the York college provide an excellent opportunity to investigate the physical layout of another such establishment, and to add to the accumulating store of knowledge about the life of a group of men who, though not of outstanding significance outside their own locality, provided a vital contribution to the ordering of the medieval cathedral. Equally exciting would be possible clues as to the nature of the buildings which occupied the Bedern before the vicars choral. Does the survival of an Old English name possibly imply an earlier ecclesiastical establishment of which no documentary evidence remains? It is an exciting possibility, and a problem to which presumably only the archaeologist can find the key.

Janet Burton

Janet Burton is undertaking post-graduate research at York University, and has a particular interest in the medieval church.

# POT SPOT HOT NEWS!



Chafing dishes are easily recognisable pottery utensils and are a relatively frequent find on sites dating to the late medieval and early post-medieval period. Their function, which is evident from the name, was to keep food warm at the table in the days when the kitchen was a long walk from the banqueting hall; this Tudor version of the 'hostess trolley' was an extremely useful addition to culinary equipment. As with so many **pottery** vessel types, the original examples were produced in metal (many of which still survive in museums), and the earthenware copies were a cheaper substitute. Fig. 1 shows a common type, comprising a hollow pedestal foot supporting a bowl with several handles and knobs around the rim on which the plate of food was placed. A variety of heating agents were used including hot embers, lighted spirits of some kind, or hot water: Queen

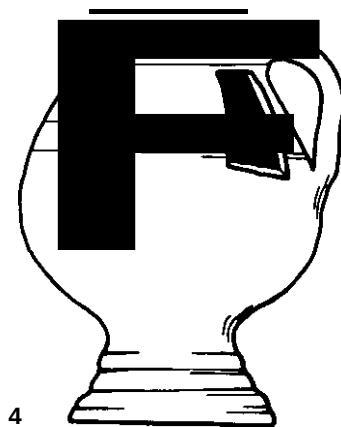
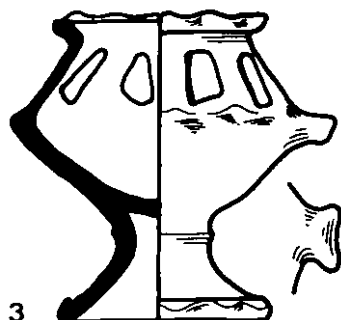
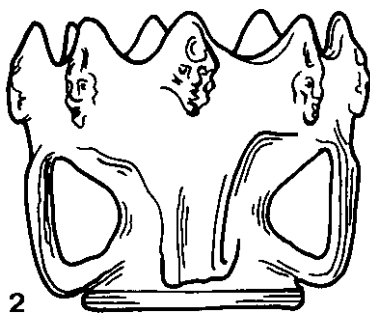
Elizabeth's inventory of Jewels and Plate of 1559 records an elaborate gilt metal chafing dish decorated with 'liberdes (leopards') heddes with rings in ther mouthes and scallop shelles over the heads the one of them being open to put in hotte water to kepe the meate hotte without fier (fire)'. Just such a a utensil may have been employed in the preparation of a seventeenth century recipe for Drawn Butter:

*"Take your Butter, and cot it into thin slices, put it into a dish then put it upon the coals where it may melt leisurely, stir it often, and when it is melted, put in two or three spoonfuls of water or vinegar, which you will, stir them and beat until it be thick".*

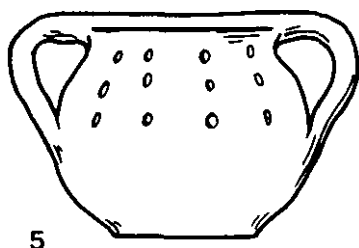
It is apparently excellent with trout.

Examples in pottery from France were popular in the sixteenth and seventeenth centuries. Manufactured in the Saintonge region (see Interim Vol 3. no 2 p 361 they were often embellished with relief designs and finely executed openwork bowls. Fig. 2 shows the more common form with human masks glazed alternately with green and yellow.

Closely allied to chafing dishes in design, are perfume pots, also less romantically named stink pots. The upper bowl is of a more enclosed shape though similarly pierced to allow the pot pourri to pervade the atmosphere. Traditionally, these are supposed to have become widespread during the Great Plague of 1666, and Fig. 3 from Nonsuch Palace in Surrey and Fig. 4 from Southampton could well have been in use at this time.



A third type. (Fig. 5) the fire pot, was probably introduced into this country by immigrant lace workers from the Low Countires. Compelled by the nature of their work to sit still for hours at a time, in winter they kept warm by putting a fire pot filled with hot ashes and enclosed in a wooden case underneath their voluminous skirts. Indeed this personal central heating continued in use until the late nineteenth century, but as Mr. Brears suggests. its convenience may have been overshadowed 'due to the habit of small boys silently approaching the user from the rear. placing a few raw chestnuts on top of the hot ashes. and swiftly withdrawing before the ensuing explosion.'



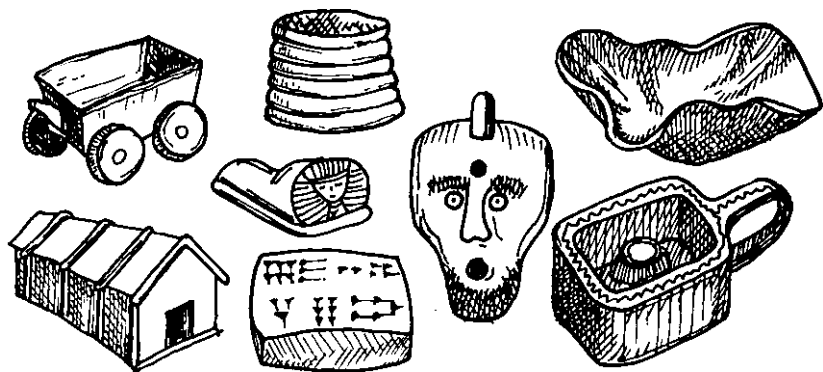
Jane Holdsworth



# interimyounginterimyoung



Three hours before dawn on Wednesday 2nd May 1973, three absconding members of YAT Commando Force ('any time, any place, any how') could be heard approximately singing round the dying embers of a Roman pottery kiln, last fired some 1700 years previously. on the outskirts of the lost town of COMBRETIVVM in Suffolk. A plea for help on an urgent rescue dig in advance of road-widening had taken them there, and in a field next to one that had yielded to the plough a superb bronze statuette of the Emperor Nero. they located on of the five Roman roads that converged on the settlement, and part of the downtown industrial quarter. The finest feature was this substantial pottery kiln, set completely into the natural clay, apart from its open roof. When excavated, it contained cracked and bloated pots rejected from the last Roman firing, but it was so well preserved that the chance of experimenting with it before destruction seemed too good to miss, especially as there is at present a lively discussion going on between Roman pottery experts as to how the Romano-Britons produced their different wares. The brilliant black surface of the well-known Black-burnished Ware has long defied reproduction; here, it seemed, was a kiln that had one produced this same ware, still intact.



Three nights of furious clay wedging and hand-modelling, and we had a small batch of 'ancient' pottery varying in style from Neolithic to Medieval. This was only a fraction of a full kiln 'charge', so a local potter contributed another load, but still we had to use bricks to avoid leaving too much empty space in the oven during firing. This seriously affected the experiment, as the bricks absorbed too much of the heat we were trying to build up. and continued to give it off far slower than the pots during cooling. Firing started after work and continued till after one o'clock next morning, after which we sat round maintaining the tight seal of clay over the whole of the kiln dome and flue while it gradually cooled down; in fact, it was after 10 am. before we could open it up. Most of the pots had survived well, but were not baked to Roman earthenware hardness; the desired blackened effect was partly achieved. We felt pretty half-baked too, by the end of it, although no-one can claim that my sausages were underdone!

Inspired by the tale of this fact of archaeological enterprise and endurance, York Young Rescue decided to put their intrepid hands to the booming neo-Roman pottery industry, and some vaguely authentic shapes were produced (see INTERIM, vol 3 no 4). Wilder flights of imagination in a later meeting gave birth to a variety of exotic cuneiform and Egyptian hieroglyphs. One recalls an extremely sinister devil-god to rival the more swashbuckling appearance of its Aztec prototype, a thoroughly rude caricature of the group leader in the form of a Romano-Syrian face-lamp, some strangely Civil Service-type correspondence on cuneiform tables. a handsome selection of scarabs and ushabtis. and the ill-fated cremation house-urns – alas, they were destined to be cremated out of existence!

Two weeks before countdown preparations began. At the north-east end of the cemetery belonging to the rediscovered church of St Helen-on-the-Walls, which lay at the upper end of the Ebor Brewery site. Trust excavations in 19734 had Cut down eight feet to the natural clay, revealing on the way Roman ovens and a road made up of layers of cobbles and rammed blocks of reject misfired roof and floor tiles (see INTERIM, vol 2 no 21. Here then was an area where the Romans themselves had operated ovens. with tilery somewhere nearby (only its spoil-heap has come to light so far, behind the Borthwick Institute), and ideal

clay for kiln building. The bottom two feet or so of this area had been back-filled, so a large square had to be dug out again in the blistering sun, but with a stiff upper lip, Carruthers, we pulled through -showed Johnny Caesar what we thought when it came to trimming his road back for him -but gad, the blisters!

The following weekend, rather more members turned up to construct the actual kiln. The typical Roman kiln has a round stockhole for the fire, from which a covered flue passage leads to an oval oven. The oven is often set into the ground for part of its depth, and has two levels. The lower level connects with the flue, and is left free for hot air to build up and bake the pots stacked in the chamber above. To facilitate this narrow shelf is often cut into the side of the oven, running all the way round; opposite the flue it might project into the chamber, or there might be a separate free-standing pedestal in the centre. In either case supports can be laid at intervals, from the shelf to the pedestal, creating an upper floor with air holes through it. The supports may be broken tiles or potshards, or specially manufactured bars, and occasionally the whole floor is a single, permanent clay structure, pierced though with air vents. The functions of these various bits and pieces of kiln furniture, as it is called, found as debris along with the broken and rejected pots, have been more or less sorted out by archaeologists, but argument still rages over the unknown superstructure of these kilns.

This is basically because if any part of an ancient structure is going to suffer at the hands of Time, it is likely to be the upper part. For kilns, the most obvious form is a permanent dome covering the whole oven part from a small vent in the middle to create the necessary draught of hot air through the kiln and to allow gases to escape. Experiments at Barton-on-Humber showed that this type of dome would guarantee a good draught and firing temperature, and that it was easy to produce a load of fairly typical black or grey ware.

But kilns of this sort take ages to load, since everything has to be passed through the narrow vent at the top and eared into position. So the few fragments of roofing debris that have been found are now taken to be parts of temporary domes, built over the pots and resting on them while they were actually being fired. Lumps of baked clay found with the impression of grass, straw or twigs certainly suggest this, and such a kiln would be easy to load.

Experiments with this method found that the draught in the oven took longer to catch but eventually got going, and that most of the heat was caught by the pots, which being placed upside down, acted as mini-domes themselves. One simply had to avoid leaving the top ones exposed to the cooler outside air (the hot-cold effect would cause thermal shock in the pots which would then crack and explode), and to be very gradual in roofing them over, so that as they baked harder they could bear the weight.

What was not so simple was ensuring an authentic black or grey finish to the

pots, achieved during the cooling period. For this, the oven has to be sealed absolutely airtight, for as long as oxygen survives inside the oven the pots will come out red, cream or generally light-coloured (no good for piedishes in the days before pyrex!). Such pottery is said to be 'oxidised', whereas blackened pottery has (probably) been 'reduced', by excluding oxygen in favour of carbon monoxide in the atmosphere and reducing the oxides in the clay. To ensure reduction, experimentors have tried stuffing armfuls of green leaves and branches up the flue just before sealing it up and at intervals afterwards, so that all the oxygen that might get sucked into the hot oven during cooling would be burnt up, but this was found to be a very complicated process. In the end it was found that efficient clay sealing, and a last load of fresh wood shoved into the firing chamber just before clamping, should do the trick.

We decided to build a double kiln, with a reducing oven for the Roman-type pots that were meant to go grey, and an oxidising oven for the exotic objects that would look better as terracotta, aiming at a temperature of c. 825 C for both. This two-in-one process may never have been carried out in Roman times, but we were short of time ourselves, and Roman kilns have been found where this would have been possible. We took as a rough model one excavated at Crambeck by Philip Corder of Bootham School in 1927, his kilns C & D, with two flues plus ovens leading off one stokehole at right angles to each other. Through inexperience, we misjudged the size ovens had to be to accommodate our pots, so we made them too wide: two feet across.

This was the start of our undoing, as they should have been built with greater height than width, to create a chimney effect for drawing up the heat. But our ovens were only just over one foot high without the domes (which were very shallow because we had too little pottery); nine inches of that was set into the clay, and we didn't want to go deeper in case the ovens took too long to cool (for the same reason we avoided using very many spacefillers): again, time was against us – that's our story. We sloped the one-foot long flues down by an inch into the stokehole to encourage an up-draught (probably ineffective) and dipped the five-foot wide stokehole to a maximum depth of one foot, but all this failed to produce enough good clay (the Romans had been messing around here before us) to build up the oven walls more than a few inches and leave enough for sealing cracks and covering the domes. (In fact we needed extra clay in the end).

However, we hoped that all would be well, and collected old furniture and dead-wood from the site for the pre-firing of the kiln. This was to dry out the clay of the ovens to prevent shrinking and collapse during the actual pot firing. Each oven had a central pedestal of clay built round a block of Roman brick from the road revealed by the stokehole, and the flues were roofed with Roman roof tiles. Of clay and sandstone also found on the site. One of the sandstone slabs split into three pieces and exploded, throwing bits about two feet into the air. but fortunately no-one was close enough to be hit, as the heat from the fire kept us

well back! Cracks up to one inch wide appeared in the oven walls. and these were patched up; during the hotter weather of the following week more cracks appeared, taking up yet more clay, but when patched it all looked very pretty and was quite photogenic. So were the pots, before we put them in!

The great day began at 10 am. and was actually about 28 hours long. The previous week had in fact been very unsettled, with several storms, and the prospect of spending a drizzly weekend squelching round a hissing smoke-heap was not a happy one. but two-faced Fortune smiled and not a drop of rain appeared. Our first task was repatching the ovens, for which fresh clay had to be dug from a convenient Medieval well nearby. By courtesy of the neighbouring Merchant Taylors we were able to dilute the clay on the spot. and our garden hose provided an endless source of amusement for some of our more easily contented members at the expense of other people's attire; some of the clay even got mixed as well. By arrangement with the demolition contractor on a nearby Bedern site we were able to keep ourselves in firewood, and were surprised but relieved to find that all those who lent a hand chopping fuel actually got them back. Before being loaded into the ovens. the pots were photographed in their two batches: 22 (+ 3 lids) for oxidising, 28 (+ 3 lids) for reducing. They would probably have together made a full charge for just one of the ovens, so space had to be taken up by pieces of modern drainage tile. The pots were carefully laid upside down and stacked with as little touching as possible.

The Minster (Great Peter, to be exact) had just tolled noon when our two youngest members present lit the fire. This was kept deliberately clear of the flues so as to allow the heat entering the ovens to build up gradually: a sudden temperature boost could cause the residual water within the clay to expand as steam and explode the pots. But here we encountered the second drawback in our neo-Romano-British kiln design: the siting. and the prevailing winds. Well, the winds prevailed where they listed, but we didn't exactly benefit! Previous experiments indicated that wind-direction probably made little difference, as long as the kilns were correctly shaped to encourage draught, although favourable winds could help to get the draught going. Our kiln was well below ground level, and the only wind that reached it was a series of contrary draughts that spiralled down first one way and then another: experiments with a metal windshield failed to control or direct the wind. and at times the flames were actually away from the ovens. After one hour we judged it safe to burn the fire right against the flue entrances. but it was very much a matter of feeling the pots and hoping for the best. We had hoped to add a touch of scientific accuracy to our experiment, but the thermocouple borrowed from the University turned out to be incapable of recording temperatures below 800 C!

After four hours minor patching was necessary. and we guessed it would be safe to cover the pots with tile fragments which would help to insulate the exposed upper pots from the shock of the colder air outside the ovens, and would

become the bases for the dome coverings. A few more intrepid members then spent over an hour braving this intense heat (no exaggeration!) in order gradually and carefully to build first one ring of turves round the edge of each dome, then an inner ring, with a continuous coating of wet clay. until only a small air vent was left in the middle. We watched these vents anxiously. but precious little smoke appeared from them, so at 8 pm. we started feeding the fire into the flues. and this had the desired effect.

Our new schedule aimed at a 12 o'clock clampdown. so after another hour or so some of the embers were raked to one side and the votive spuds thrown in. The sacrifice of the sausages was truly portentous. as the sieve in which they were being grilled kept bursting into flames dramatically. We decided it was cursed as well as by now overcooked, and the faintly writhing victims were speared on sharpened sticks and toasted over the fire. As you can't always be sure with sausage meat (nor with my cooking), they were mostly carbonised when eaten; in fact they got a better firing than the pots, and were rivalled only by our stokers, who got oxidised outside and pretty much reduced inside!

Came the witching hours of midnight, and just about everything had been consumed one way or another, and most of the original crowd of nearly 20 members plus relatives and hangers-on had drifted away to a saner routine (Saturday night telly, Sunday papers in bed ) leaving a solid core of eight Young Rescue heavies to keep the watches of the night. A suitably sombre, if not exactly soporific, atmosphere was further induced by evoking the spirits of the dead in the form of some well-chosen ghost stories concerning that unsettling phenomenon. the screaming skull. The last of 300-odd less complaining specimen had been removed just a week ago from the Medieval cemetery in which we were sitting. On the assumption that the individuals themselves were resting in peace, one of our members was able to prove that a well dug grave (recently vacated) can give as comfortable a sleep for one night as for a millennium. Others opted for the indoor luxury of the Trust's Ford Transit, while the rest alternated between their tent and the fire.

At 12.30 the kilns were clamped down and sealed over with clay. a last batch of wood having been pushed up the flues before they were blocked with tiles and sealed. A small portion of the fire was kept going away from the ovens to warm the nightwatchers, but there were no ominous pings or cracks from excessive cooling, and only one patching session with clay was necessary, at two o'clock. Ironically, more smoke seemed to be escaping from the reducing North oven. which should have been airtight; the idea was to let the other one develop airholes so that oxygen could continue to circulate, but there really didn't seem to be much going on inside either. The sleepers began to stir about 5 am. but managed to wait three hours before frying breakfasts somewhat heavily loaded with left-over sausages and baked beans. Camping-gaz stoves were used, which may have been cheating, but the many cups of tea they had produced were the backbone of the whole enterprise for some of us!

22 hours after first firing. we felt we should open up the ovens in case their contents should require further treatment while there was still time. First the 'oxidising', then the 'reducing' kiln had its dome carefully sectioned: a straight line was drawn across the clay (still damp on the outside) across the middle from back to front. One half of the clay and turf was cut away and removed. then the tiles, then the visible pots were cleaned and photographed, before the other half was dealt with in the same way. The flues were unsealed and quickly raked out, but we needn't have worried about excessive heat remaining! At least none of the pots was damaged in the firing (apart from one or two made out of several pieces which hadn't been properly luted together). and those stacked at the front of the ovens had gone at least partially black. Those at the back and top were definitely underfired, while the rest were about 'biscuit' consistency.

BY this time a number of friendly vultures had congregated to see the results of our labours; one of these was the Trust's Conservator, who suggested that the underdone pots should be given a second firing so that members could take their own away satisfied. Again, to save time and to add interest, a primitive bonfire kiln was proposed, in which the pots would be piled up and covered directly by the fire (built on carefully graded fuel, finest on top) which should then be lit from the top and burn gradually downwards. Sounds intriguing? Some of us are still wondering!

You may be more familiar with the version that begins 'It was a dark and stormy night, three robbers sat under a tree. and one of them said, "Tell us a story" .' Well, this one goes, 'The Minster had just tolled noon when the fire was lit .' Unfortunately. fire number two had a nasty tendency to burn from the bottom, and had spent itself in half an hour, shattering most of the pots in the process. After an hour or so we pulled out the pieces to finish cooling, and found to our surprise that some had still scarcely fired to terracotta.

Fortunately the most interesting pots had been at the bottom, protected by others from the over-rapid temperature changes. and had survived; so too, of course, had those few best pots from firing number one not-re-sacrificed. These were photographed, along with the fragments, and by 2 pm.. Sunday 18th July, all the pieces had been packed away to await a future meeting, when the Trust Conservator will do penance by patiently initiating us into the mysteries of pot restoration!

The kiln has been partly backfilled with debris from its construction and use, and partly left open to the weather. The idea is to speed up history by both burying it and letting it be worn away, so that next year perhaps we can go back and conduct a 'controlled' excavation; we should have the benefit of knowing at least something of what we shall find there!

Chris Clarke

# MEET THE ARCHÆOLOGIST



## Shahed Power

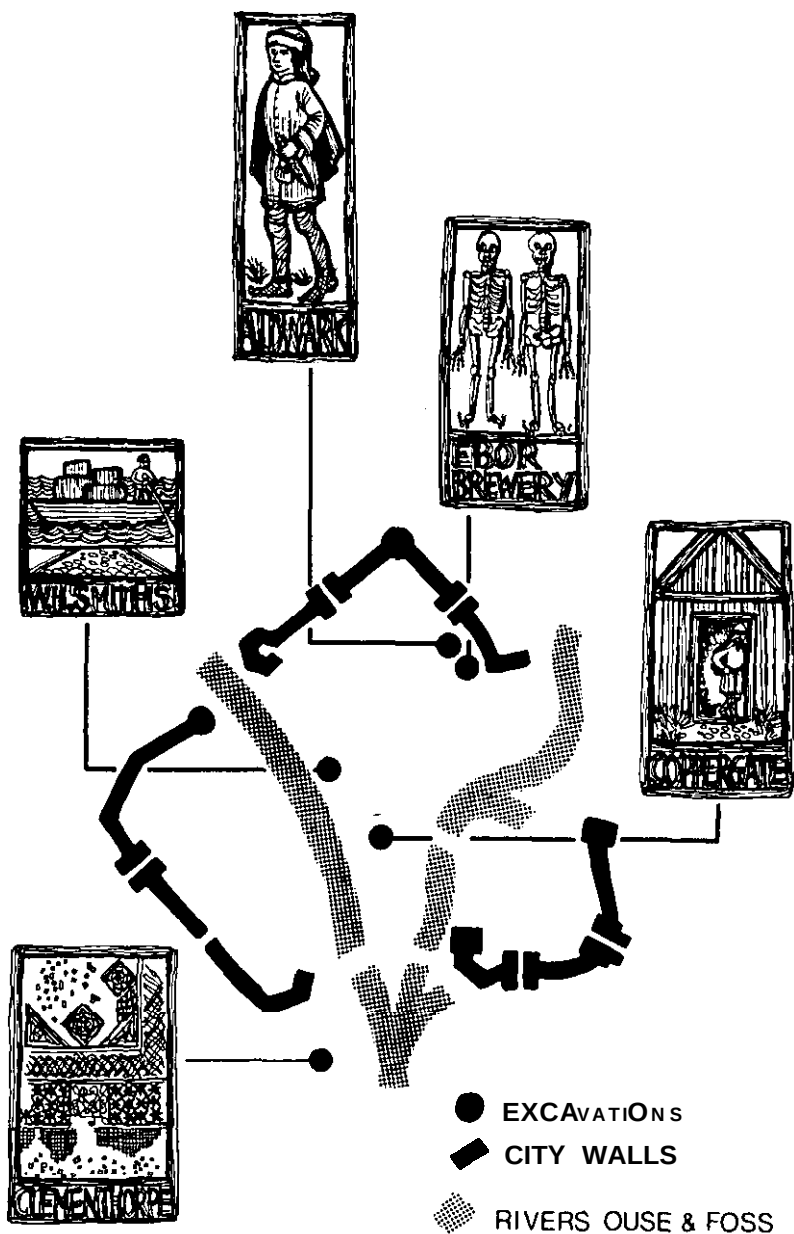
Shahed Power, (whose Christian name is pronounced with an accented first syllable) a member of the Trust's select permanent excavation team, has the catholic and sometimes esoteric interests that his name suggests. Coming from an Anglo-Irish/Bengali family, his education at St Edmund's School Canterbury seems to have fostered his far-flung interests. Whilst there, and initially inspired by the late Leonard Cottrell's book on Hannibal *Enemy of Rome*. (just how many young archaeologists owe their introduction to the subject to Cotterell. wonder?), Shahed won a Gerald Avery Wainwright prize from Oxford University with an essay on Carthaginian gravestones.

With this background it was a logical next step to University College Cardiff, where he obtained a B.Sc. in archaeology, concentrating, as the degree implies, on the more scientific aspects of the discipline, including an emphasis on conservation and environmental archaeology. It was here too that, despairing of being able to pursue his first love of Western Phoenician archaeology, he began to acquire his present main archaeological interest, fortification and settlement in Norman Britain. Following an undergraduate dissertation on Early Norman Castles in Hertfordshire and Essex, he is now undertaking part-time research on the topic of 'Village enclosures attached to castles in England and Wales'. The first problem here is one of identification for although, as Shahed is quick to point out, these sites are of interest as the earliest examples of medieval (post-1066) fortified settlement, they have been grossly neglected in the past. In the hope of rectifying this deficiency, Shahed has hopes of excavating a choice example, but that is for the future.

Having left Cardiff, Shahed worked as supervisor or director on a wide variety of sites, amongst them inevitably a number of castles, but also including an Iron Age hill fort and Bronze Age barrow. A spell at Southampton introduced him to urban work, and in March 1975 he joined the Trust, working since then as an area supervisor on the Blake Street and now the Coppergate sites, and also directing the brief rescue excursus at a tower on the precinct wall of St Mary's Abbey (INTERIM vol 3 no 4 p 40). Recently too he has taken on the post of Staff Representative on the Trust's Executive Committee.

To get away from archaeology, Shahed finds solace in music of all sorts and periods, from the twelfth to the twentieth centuries (he is a member of a well-known trio), and in a similarly wide range of English literature. Indeed, as an enthusiastic life member of the Bronte Society, perhaps it was the proximity of Howarth which attracted him to York in the first place.





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