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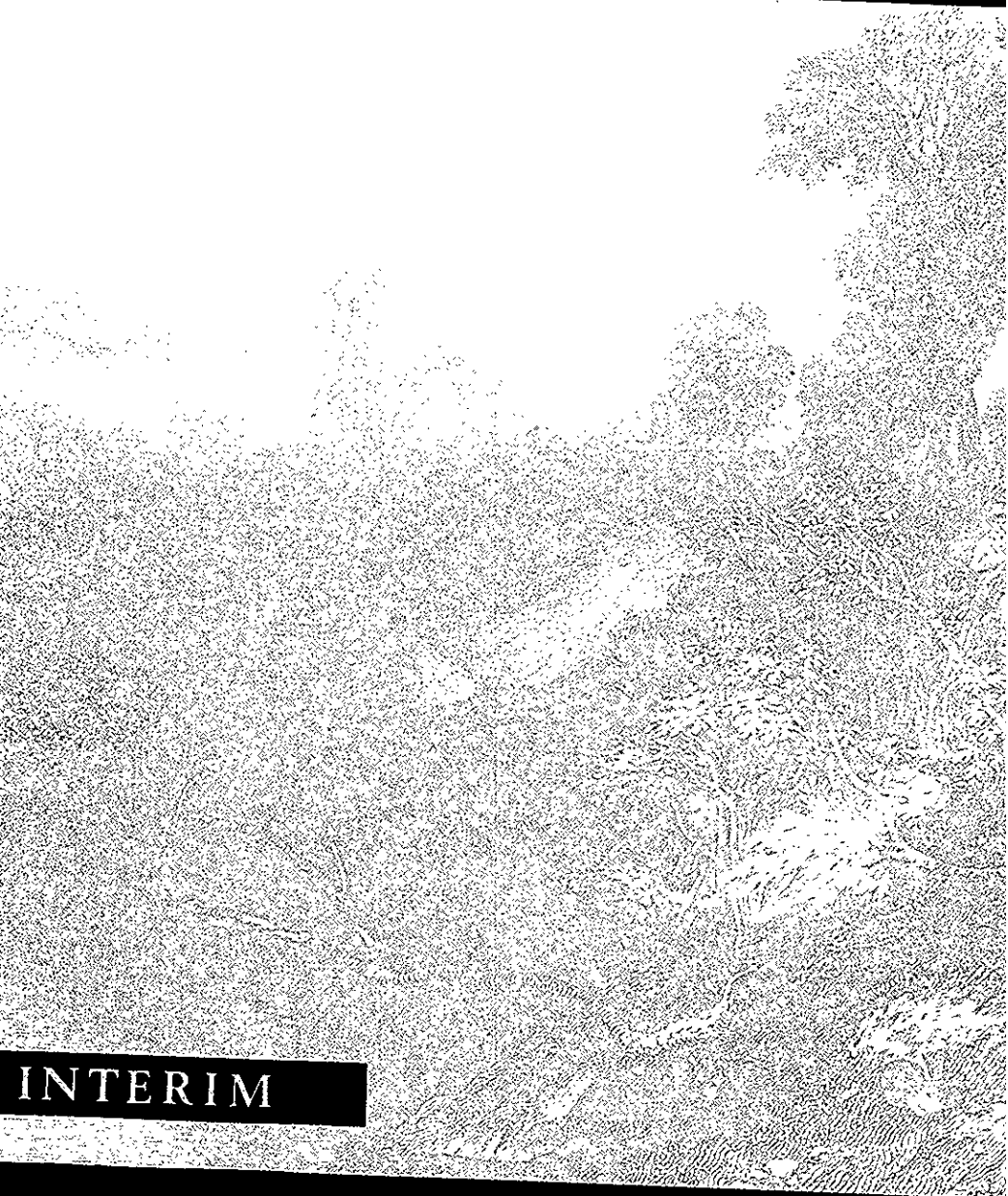


INTERIM

Contents

Cover shows a 19th century view of Marrick Priory, Swaledale, *by J.M.W. Turner RA*

Outline

The increasing role being played by the Trust In the planning of development in the city (see last issue) has continued to occupy a great deal of the Trust's time. One result of this will be a three week archaeological examination of deposits relating to the Kingspool Development on Peaseholme Green due to begin shortly. The Trust will also be undertaking an evaluation on behalf of the Technical Services Dept of York City Council at the site of St George's Chapel on St George's Field, beside the River Foss, just outside York Castle.

The slight lull in digging has enabled the loose ends of excavations which took place earlier in the year to be tied up. This includes the routine washing and marking of finds and their recording on CIFR (see this issue) for future analysis and research. While most of this latter work is done by Trust staff, the Trust owes a debt of gratitude to a loyal body of volunteers who help In all stages of finds processing.

Education of the public In the fascination of archaeology is one of the major aims of the Trust (see this Issue) and we have been busy this summer in that direction. As in previous years the Trust hosted the popular Scholarship for Youth and was also involved in a new venture in collaboration with the University of Leeds. Adult students taking the Leeds Diploma in British Archaeology (an Open University credit course) spent a week of their course with Trust staff learning about conservation and artefact research.

York has recently hosted two events organised by the Historical Metallurgy Society; their annual conference with an international panel of speakers was followed by a one day event looking at 'Metalworking

products and waste products' organised jointly with the Yorkshire and Humberside Group of the Institute of Field Archaeologists.

Finally, the popular Lunchtime Lectures held (free of charge) at 12.30 in the Arts Centre began their autumn season with a tecture on the fascinating medieval 'book' foun during the recent excavation sponsored by General Accident at Swinegate (see INTERIM 14/4). A list of forthcoming lectures is included in this issue and all are welcome to'attend.

The Editors

Clifford Street Revisited

Another office development has led the Trust to undertake excavations at 23 Clifford Street. This property is Just down the road from the site at 5-13 Clifford Street, investigated under the wrlter's supervision during January and February of this year (see INTERIM 15/1).

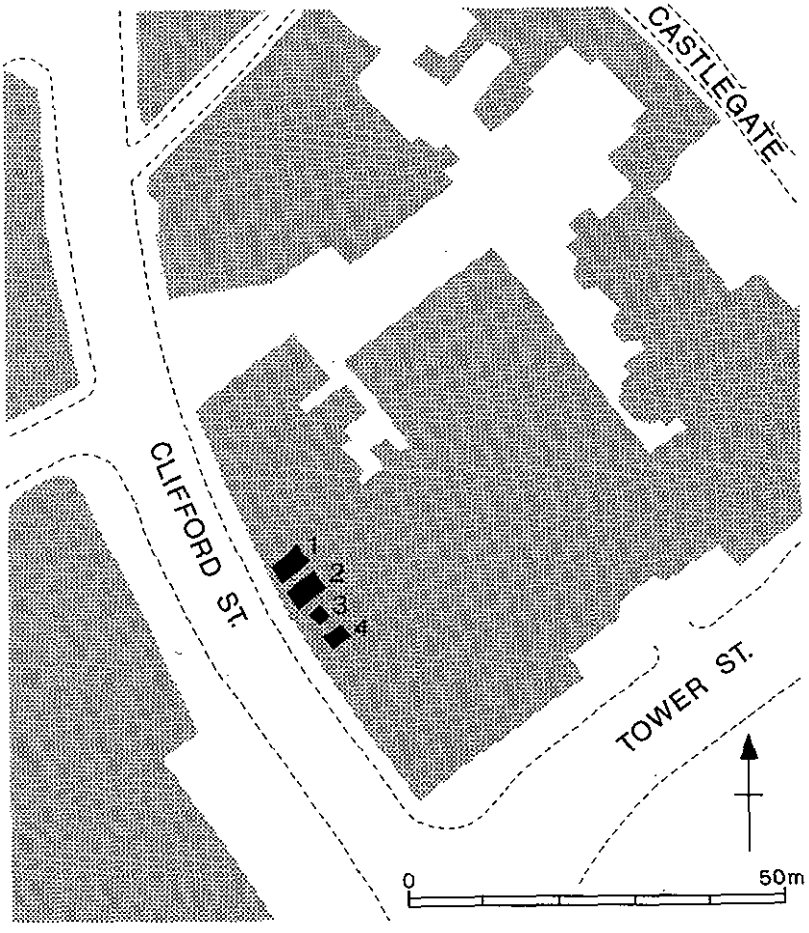


Fig. 1 23 *Clifford Street. Plan of trenches*

The site appeared to have considerable archaeological potential; relatively little is known about past human activity in this part of York. More specifically, this project provided an opportunity to test the theory that Anglian Eoforwic extended along this bank of the River Ouse, northward from the area of settlement in Fishergate, excavated in 1986. In addition, 23 Clifford Street lies within the area once held by the Franciscan Friars; they were granted the land in 1243, and established a Friary so luxurious that important visitors to the town preferred to stay there, rather than at the castle.

The excavations were carried out between 30th April and 2nd June, within the cellar of the standing building. Trenches *were* dug in the four rooms at the northern end of the cellar. where destruction of the archaeological deposits from the foundation piling would be at its greatest (Fig. 1). Trenches 1 and 2 occupied virtually the whole floor area of their respective rooms; as the principal threat here was that of lowering the floor level to create more headroom, only the uppermost 0.5m of archaeological deposits had to be removed. Further south, where a concentration of foundation piles was planned, Trenches 3 and 4 were excavated to natural; the size of 'these two trenches was limited in order to avoid the risk of undermining the foundations of the standing building.

The first archaeological deposits encountered were those of the cellar floors of the existing building, built in 1883. The floors generally consisted of little more than compacted earth; the exception was Trench 4, where a thick concrete floor had been recently laid. Below the cellar floors was a thick, homogeneous silt loam, which Is thought to have been a garden soil – prior to the construction of Clifford Street. In the late 18th century, the site was part of gardens behind properties fronting onto Tower Street. A number of pits cut into the garden soil presumably were garden features. One linear fea-

ture ran almost the entire length of the excavation, and was filled with fragments of limestone and plant pot; It seems to correspond to a garden path on the 1852 Ordnance Survey map, and may have acted as a combined path/soakaway.

Beneath the garden soil, extensive spreads of limestone fragments (some clearly architectural), tile and mortar were encountered. They were not excavated in Trenches 1 and 2 as they lay below the 0.5m of deposits under threat. In Trenches 3 and 4, the debris overlay robber trenches backfilled with demolition material; the eastern cut in Trench 3 was almost entirely filled with architectural fragments. The quality of the stonework, brick and tile, window glass and painted plaster found throughout the demolition deposits point to buildings of some sophistication and grandeur; it is very likely that these are the remains of the Franciscan friary. no doubt demolished during the Dissolution. As only the very edges of the robber trenches could be investigated, it is possible that the remains of the friary walls survive intact beneath the robbing, just beyond the excavated areas. The position of the debris layers and the plan of the robber trenches suggest that the robbing cut In Trench 4 was the southern limit of a complex of wails, but it is not possible to determine what part of the friary this represents.

Beneath this demolition debris was a series of dumps, mainly comprising domestic rubbish such as animal bones and oyster shells. A possible hearth in Trench 3, and pits in Trench 4 (apparently Inside and outside the 'friary' structure respectively) wlthln these dumps were the only other activities evidenced which may have been associated with the friary. Unfortunately, the absence of tangible floors, indeed of any klnd of surface, makes further interpretation of this 'friary' phase difficult.

Provisional dating of the pottery suggests that the bottom metre of dumped material-dates to the period between the Norman Conquest and the establishment of the friary, These dumps were interspersed with pits and, occasionally, evidence of buildings (Flg.2). In Trench 4, a line of circular voids was found beneath a linear cut filled with limestone fragments and crushed mortar; this can be interpreted as the robbed remains of a masonry wall resting on piles (Fig.2a).

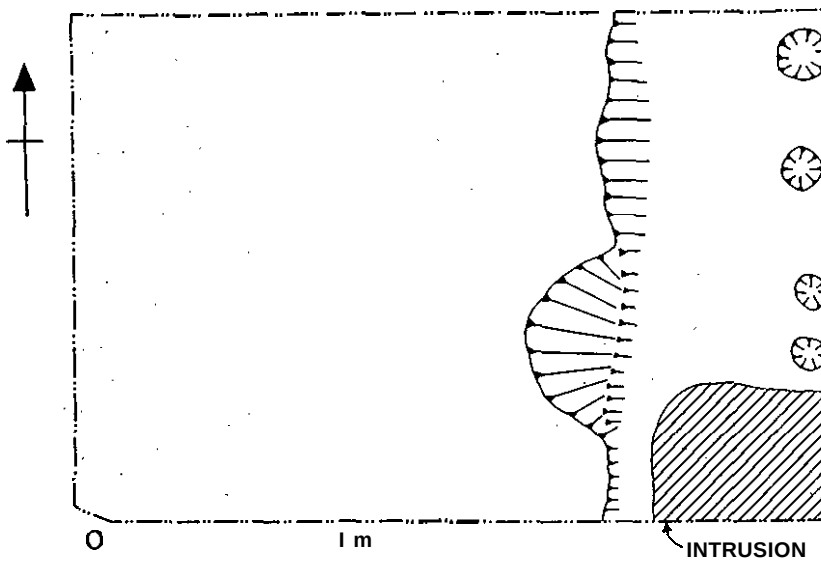


Fig.2a Robbed pile structure

At the bottom of Trench. 3, dumps dating to the later 11th century were found lying directly on natural sand. This seemed to Indicate that the completion of Trench. 4 (the last trench to be completed) would be similarly straightforward to excavate. In fact, the opposite was the case, providing an object lesson in the dangers of making assumptions about what will be found on an excavation, and demonstrating how unrepresentative of a site sample excavations can be.. Beneath the

lowest dump, and cut into natural sand, were a multitude of features. Apart from a number of pits (one of which may have been a well). were the remains of what is thought to be the north-west corner of a post-in-trench structure (Fig.2b). In addition. an inhumation burial was found; most of the skeleton was beyond the trench, but it appears to have been extended, with its head to the south-west. A date around the Norman

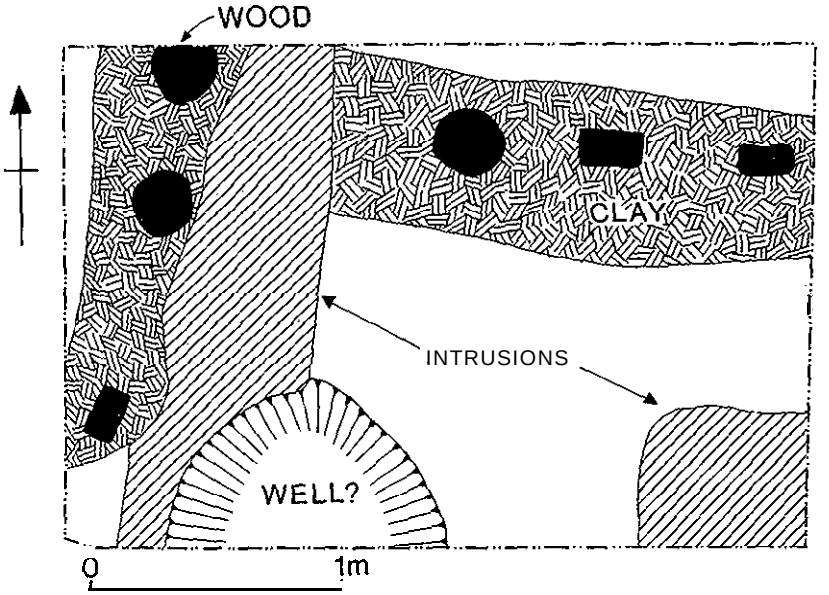


Fig.2b Post-in-trench structure and ?well

Conquest for the burial Is indicated by its stratigraphic position, although it is possible that It was placed in an (unnoticed) grave cut from a higher level, in which case the burial could date to the friary phase.

In view of the considerable depth of medleval deposits encountered, the lack of stratigraphy pre-datlng the Norman Conquest is surprising. Thls phenomenon was also observed on the Castle Garage excavations In 1981, to the north-east of 23 Clifford Street. Yet barely

50m further north, at 5-13 Clifford Street, stratification dating from the Roman to the Anglo-Scandinavian periods was in excess of 3m deep. It seems likely that, rather than there never having been any pre-Norman stratigraphy at 23 Clifford Street, it was removed. One explanation that springs to mind involves York Castle. When the Normans built the castle, there is evidence that they also took control of the area between the Rivers Ouse and Foss, almost, as far north as modern Friargate. to accommodate a somewhat short-lived outer bailey north of Clifford's Tower; later, a portion of this land, west of Castlegate, was granted to the Franciscans for the friary. Perhaps, in order to strengthen the castle's defences, the Normans dug away the high ground to the north overlooking the castle, down to the natural subsoil. This may seem a drastic action, but the damming of the River Foss to provide the castle with a wet moat shows that the conquerors were prepared to do whatever was necessary to render the castle impregnable.

Thanks are due to the developers, R.D. Pilcher and Son Ltd, who funded the project; and to Keith Harland. who contributed to its smooth running. The excavation assistants never ceased to surprise me with their enthusiasm and diligence in such troglodytic conditions.

Kurt Hunter-Mann

Preservation By Record

Anyone who has ever leaned over the fence around the edge of a YAT excavation will have seen that a significant proportion of excavators are not actually hacking or scraping at the soil, but are involved in recording it and Its removal. By the end of an excavation these records, in addition to the finds recovered and samples taken, are all that Is left of the remains of past human activity on the site. We may then say that the site has been 'preserved by, record'. This process of recording is recognised as part of modern archaeology by the general public, but few realise why we take so many records, what they are actually for, and what we do with them.

Excavation Is only the first stage in the process by which primary archaeological data are generated; following this data-gathering exercise further analysis must take place before it can be considered that the site has produced 'reliable archaeological results'. It is only these fully considered results which are published in The Archaeology of York fascicule series. Provisional site interpretations committed to print can be dangerous animals, and have a habit of haunting their proponents for years afterwards; I certainly wonder how many of the hundreds of site articles that have appeared in INTERIM over the years are now actively regretted by their authors (see INTERIM 13/4. 29-34 for how things can change). Yes, *this* publication is called 'Interim' for a very good reason!

In the winter of 1986 David Brinklow and a small team excavated the site of the Haymarket, Peasholme Green, in advance of its destruction by the foundations of the City Council's hostel for the homeless. It recently fell to me to bring this project to publication, analysing a site, which I had never even visited, from its records

alone. This could be seen as a true test of the recording system; if sense could be made of the excavated sequence at this remote juncture then the site could truly be said to have been 'preserved by record'. The process has now been completed *and,* despite one or two hiccups in some of the recording, full analysis has been possible. This has revealed that the provisional site Interpretation (presented in INTERIM 12/1, 1-7) Is Incorrect In a number of ways.

Excavation Involves the recognition, recording and removal of each separate layer of soil, fragment of wall, burial or pit (known In the trade as 'contexts'). The recording 'of *a single* context Involves the production of a detailed scale plan and a record card. On this card a context's details and characteristics are noted; including its content, colour, inclusions and relationship to other contexts above and below it. There is also room on the card for a provlslonal Interpretation, and space to note where a plan or photograph might be found; even a box to note when it was excavated, exactly how (by hand, shovel or machine: It does make a difference), and by whom.

The process of 'post-excavation' analysis employs a standard procedure, beginning with the orderlng of every slngle context into one long sequence based on the recorded Information about Its relationships with other 'contexts. Thls Is expressed In diagrammatic form on what is known as a stratlgraphlc matrix, showing which layer was the earliest deposited on the site, which context followed this and so on; ideally forming one long sequence from natural subsoil to, in this case, the car park that was dug up on the first day. Without this stratigraphic information any number, of glowing lines of descriptive prose about a context's texture or flnest inclusions are entirely useless. It is not possible to begin to make sense of what happened on the site

unless the order in which layers were deposited is known. In some cases, where relationships are not noted at all or are demonstrably wrongly recorded, the researcher can resort to the drawn record. By carefully overlaying the scaled drawing of one context over that of another (all having been drawn with reference to a common site grid) and comparing the absolute levels of the two, it is possible to establish or check the relationship between two contexts. This cross-referencing is facilitated by the fact that the YAT now use a system of single context planning which ensures a plan of the full extent of every layer.

Having established the stratlgraphlc sequence, groupings of contexts, which are the result of similar, related, and usually contemporary activities (site Periods). can be created. At the Haymarket site, Periods 1 and 2 refer respectively to natural subsoil and the early (perhaps Roman) deposits found in one corner of the excavation, but these need not detain us here.

The *raison d'etre* of the Haymarket excavation was the recovery of a medieval church and its associated cemetery, recognised in trial excavations and thought to be All Saints, Peasholme Green. Deposits relating to this episode in the history of the site were assigned to *'Period* 3 – site *in use as a church and cemetery'.* but the stratigraphic analysis of the order of deposits within the church revealed a number of major changes durlng its lifetime, thus necessitating the subdivision of Perlod 3 into a number of subperiods. The first of these comprised the cobble foundations (context number 5107) of a small structure associated with at least two burials (context numbers 5151 and 5177). these are assigned to 'Period 3a – first structural traces' (Fig. 1). Cuttlng through both burials were the robbed remains of a buttressed wall (context 5190), the stratlgraphlc se-

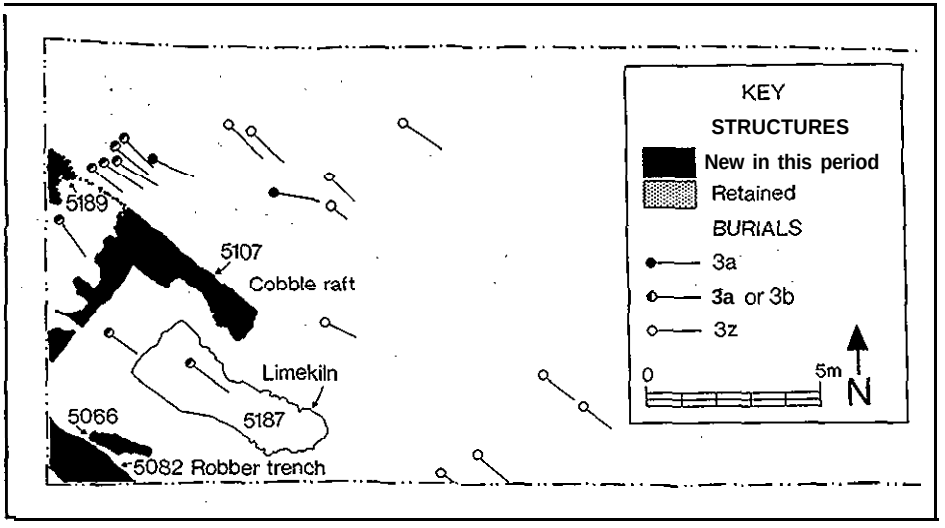


Fig. 1 Period 3a, *first structural* ***traces***

quence (i.e. wall 5190 cutting earlier burials) thus revealed a second 'event' within Period 3 which was designated *'Period 3b – first major structural developments'* (Fig.2). The close similarity of the alignments of the earlier and later walls shows that the first structure was retained and the second was probably built around it, a familiar pattern seen in many medieval churches: A series of burials cut through parts of the fabric of the original Period 3.a structure, and so can hardly be considered contemporary with it! These were also assigned to Period 3b, and probably represented the use of the newly altered building.

All of these burials, and the foundations of the first structure, were covered by a single layer of soil (context number 5110) that extended over most of the interior of the later building but respected its walls. This implies that the Period 3a structure was, dismantled leaving only the Period 3b outer shell. These major developments within the structure *were* assigned to *'Period 3c*

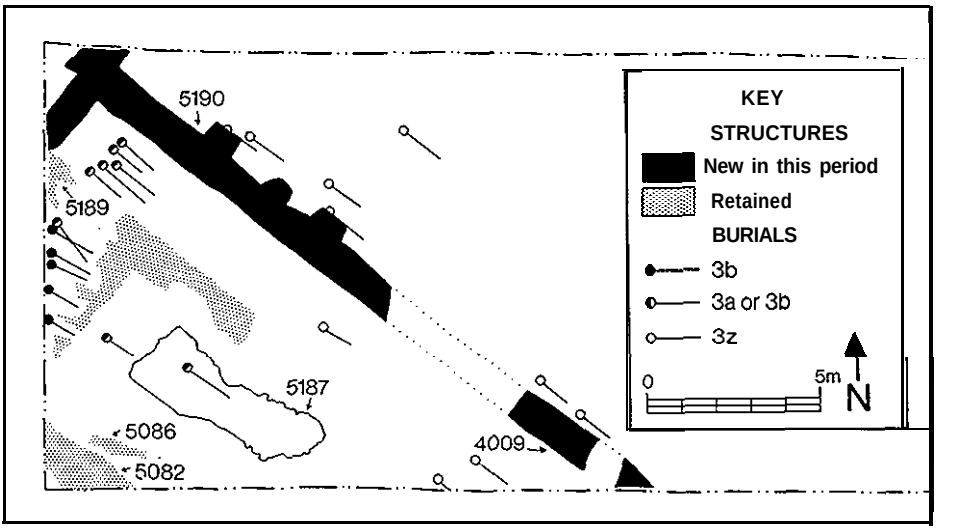


Fig.2 Period 3b, first major structural developments

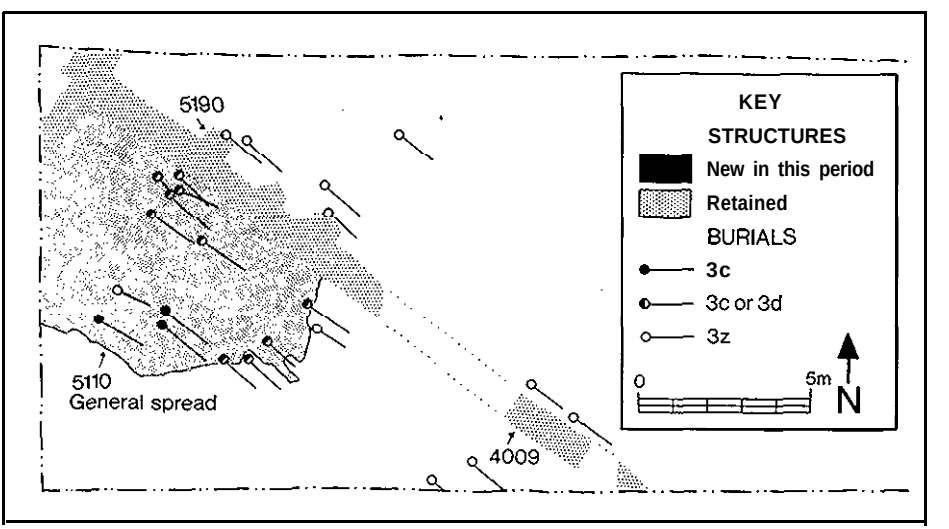


Fig.3 Period 3c, further changes within the *structure*

– further changes within the structure' (Fig.3). A number of contexts were also recorded as being *below* 5110, including the remains of a limekiln and several burials. Since neither the kiln nor the burials can be

firmly associated with either the first structure (3a) or the subsequent enlargement (3b). but must, on the basis of their stratigraphic position, relate to one or the other, they can be confidently assigned to Period 3a or 3b. Thus, 'stratigraphically speaking' the limekllncannot possibly have been that built by Alderman Trew to burn his lime in the 17th century when the church **was being** destroyed, as David Brlnklow suggested (INTERIM 12/1, 6), but is more likely to be a kiln built for the construction of the first church or its subsequent enlargement. David can be excused; he did not have a stratigraphic matrix when he wrote his INTERIM article!

Further burials, recorded as cutting the layer of soil 5110 and therefore stratigraphically *later* than the Period 3 construction work, probably related to the use of the newly arranged church. These burials, however, were in turn covered by another cobble raft (context number 5062) perhaps representing the structural replacement for the now dismantled Period 3a walls. Whatever its actual interpretation this walling represented another 'event' within Period 3 and was assigned to *'Period* 3d – *subsequent alterations within the structure'* (Fig.4). This raft was cut by yet more burials which probably related to the use of the church in this final form.

Some excavated burials were outside the church or not covered by either soil layer 5110 or cobble raft 5062, and these could not be attributed with confidence to Periods 3a, 3b, 3c or 3d, although they still appear generally related to Period 3. These burials were assigned to Period 3z (calling them Period 3e would wrongly. imply that they directly succeeded 3d). and they all appear on all four plans (Figs.). Other burials cut the soil layer of Period 3c but *not* the cobble raft of Period 3d, and clearly could not belong to Period 3a or

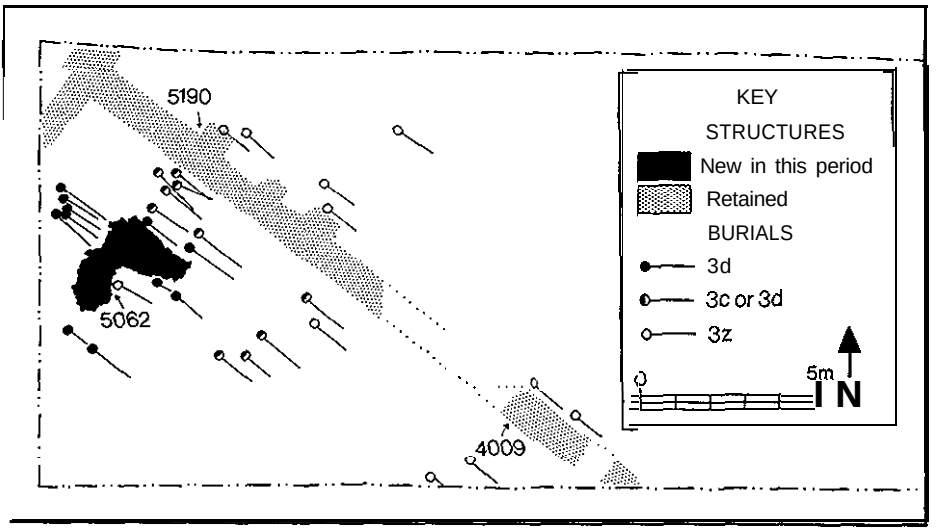


Fig.4 Period 3d, subsequent alterations within the structure

3b, but could relate to either Period 3c or 3d. These inhumations are 'better stratified' than Period 3z burials, and accordingly appear on both plans 3 and 4 (Figs.). Deposits above the church relate to its demolition, and the subsequent use of the site as the hay market and later a car park – it is fundamental to the process of analysis that every context recorded on the site **must** be assigned to a period, and Its existence fully explained in terms of the rest of the sequence.

The context records from the excavation at the Haymarket, Peasholme Green. have now been 'phased', and a document called an 'archive report' details all the arguments outlined above and explains the detailed stratigraphic and spatial evidence that has been used to arrive at these conclusions. Only at this stage can the finds, architectural fragments, pottery, skeletons and other components of the site archive be researched or commented upon In any meaningful way.

Once fully assessed and integrated, the writing of the final site report can begln in preparation for the next fascicule in the Archaeology *of York.*

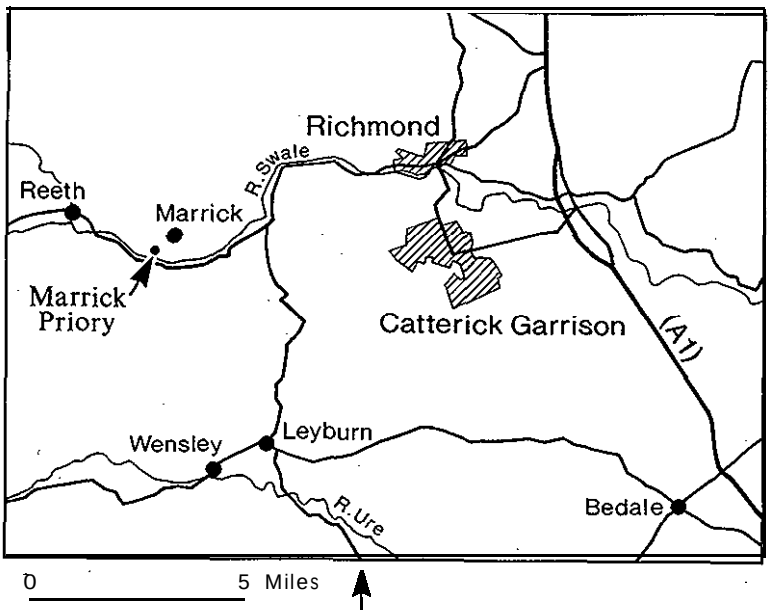
Having followed the progress of this site from 269 disjointed contexts to a series of structural developments within a church, INTERIM readers will hopefully have a better idea of the importance of site records, and will appreciate that if such records exist a site may be considered 'preserved': without these records an excavated site is destroyed. They will also be aware that the raw 'site data' are not the same as considered 'archaeological information', even though sometimes, somehow and almost by coincidence the excavator can come close to the eventual 'truth'.

Richard Kemp

Marrick Priory

Fig. 1 General view over Marrick Priory from the north

In recent weeks, the Trust has ventured into pastures new, literally, by undertaking a multi-faceted research project at Marrick Priory, near Reeth. Swaledale. Sponsored by the Yorkshlre Dales National Park, the overall object of the project has been to provide the first detailed record of the standing buildings and associated earthworks at the site so that it can be assessed for future management and planning decisions (Fig.1). The present protection of the site covers only the church (Grade II) and the nearby farmhouse (Grade II'), while no protection is currently given to the extensive remains of wall foundations, fishponds and other features in the vicinity.



Marrick Prlory received its foundation charter as a nunnery of the Benedictine Order between 1154 and 1158. to which were added various other grants of land, rents and tithes, mostly during the later 12th century. The documentation relating to Marrick is unusually extensive and indicates that the bulk of its land, and its founder and benefactors, were relatively local, the land estate being mostly within 20 miles of the Priory. Marrick may have been rather wealthy among the Yorkshire nunneries in its earlier centuries; it was the richest nunnery whose Papal taxation entry survives for 1291. and fragments of an unusually high quality, late 12th century cloister arcade were discovered'on the site during the project.

During its life the Priory church served both as the nuns choir, using the west of the nave, and as 'the parish church. After the Priory's, Dissolution in 1539, the church and churchyard continued for the use, of the

Fig.2 Marrick Priory church from the south-west

parish while the site of the Priory as a whole passed through a succession of landowners over the next four centuries. A detailed, labelled plan of the Priory complex as surviving in 1590 or 1592 was made about the time of one such conveyance, and proves extremely useful, if somewhat tantalising, in attempts to reconstruct the layout and likely functions of the surviving Priory remains.

The church was extensively demolished and rebuilt as a tower, shorter structure in 1811, reusing windows and other mouldings from the former church and leaving only the tower and the ruin of the former chancel surviving as largely original structures (Fig.2). Adjoining the north side of the tower is a building with hollow-chamfered, mullioned windows, equating with the

'Prioress's Chamber: of the 1590/2 plan, and also substantially original today, though used as a byre by the farmer. The church and churchyard are currently used as a Church of England Outward Bound Centre, with offices and warden's accommodation erected in the churchyard with further alterations carried out to the church in the early 1970's. The remainder of the site is farmed from a group of buildings centred over the site of the north-west corner of the Priory complex, while the farmhouse itself occupies part of the site of the east side of the claustral range. The livestock farming has occasioned the recent construction of a series of sheds and pens in the north-western part of the site, and further alterations and building projects dre associated with the Outward Bound Centre. These provided the. immediate spur to meet the more general need for a detailed survey of what survives at the site, and precisely where: The task has been approached by breaking down the overall brief into five aspects, each tackled by individuals experienced in these respective fields, the results yielding a wealth of new information about the site.

The survey of features on the ground was achieved using the Trust's Electronic Distance Measurer (EDM). saving a considerable amount of time. both In the field and at the drawing-up stage. The survey area stretched north from. the river floodplain to include the natural platform on which the Priory precinct was built, and some 'distance up the hillside beyond., to take in a feature called the 'Mill Dam' on the OS map and a series of grassed-over boundary banks which end at a zone of late glacial slumping at about the 230m contour.

The, resulting plan 'reveals extensive surviving and robbed wall foundations of the Priory's south-east,

south and west outer ranges and the eastern part of the claustral range, as well as parts of the Priory precinct wall, surviving in places to a height of over 2m, and the possible site of an original southern entrance to the complex. This information is sufficient to enable reconstructed ground plans to be drawn up with some confidence; all are extremely vulnerable to any future ground disturbance. Also revealed was the Priory's extensive water management system relating to a fishpond; north of the Priory building complex, the 'Mill Dam' was revealed to be the lower of two similar. contiguous, levelled and embanked areas, now dry but originally fed from a gully coming down the hillside. No mill is recorded in the immediate vicinity and no water channel leads from the lower area towards any mill site. Neither are these features appropriate for serving a mill. but rather they match the pattern of fishponds found associated with many priories and larger religious houses.

The brief of the survey also included planning the upstanding Priory buildings, which really amounts to the church and chancel ruin plus the Prioress's Chamber, as well as the farmhouse, which almost certainly contains Priory walls In its fabric. One of the major results of the work has been to show how the remains of the Priory complex mesh with other well-preserved natural and archaeological landscape features in the immediate vicinity. The effects of the development of the river meander to the south of the complex, for example, need to be considered when assessing the relationships to the river of the fishponds, fords and entrances from the floodplain to the Priory precinct. A hollow-way bounding the east side of the Priory precinct is demonstrably earlier than any of the surviving Priory remains – the eastern boundary that its course dictates is the only curvilinear boundary in the Priory precinct, and the

Priory wall along the hollow-way's western side is underlain by a massive boulder wall wlth rubble core that extends beyond the Priory precinct area and Is otherwise unassociated with it.

Immediately north of the Priory precinct. well-preserved croft boundaries runnlng up the hillside were recognised, ending at the lower edge Of late glacial slumping that also marks the division between the stone-free cleared land and the uncleared land. The boundaries are more, finely subdivided on the lower slope behind' t h Priory, 'though the flshponds obliterate', and thus post-date, the divisions in 'much of this zone. The extreme north-west corner of the survey area contains another hollow-way leading up the hill and ending at the edge of the uncleared land, probably to give a **route** for livestock to summer pasture. On the lower slopes south of the hollow-way are the particularly well-preserved foundations of a rectangular longhouse, essentially a combined farmhouse and byre separated, by a transverse partition near the centre, and probably of later medieval or early post-medieval date. Preservation is so good that the distinction between the domestic quarters and the byre Is still visible as a slight difference in level of the grass. Settlement of a much earlier date is evident at the eastern side of the survey area where a large oval house-platform, again very well-preserved;. is cut into the hillside, Current-excavations of a similar structure at Healaugh, three miles to the east, suggest an Iron Age to Roman date for their occupation.

In addition t 0 this landscape survey, detailed study of the fabric of the farmhouse resulted in a substantially revlsed building sequence for the present structure. It can now be suggested that the origins of the surviving building lie' In the conversion of the nuns frater, and possibly part of the dorter, to a secular hall after the

Dissolution, a cross-passage being inserted to separate the service wing at the west end of the hall. The detailed report and accompanying plans outline the extensive alterations during the following four centuries to arrive at the farmhouse we see today.

A further aim of the project was to compile a record of moulding profiles present on the site, in situ, re-used or lying loose on the ground. This has facilitated a consideration of the major phases of building activity at the Priory, taklng place probably in the late 12th and 14th centuries, with less extensive activity during the late 13th and 15th centuries. Amongst the many previously

Fig.3 *Double-capital from cloister arcade. late 12th century*

unrecorded moulding fragments Is a late 12th century foliate-carved double capital, probably from a cloister arcade (Fig.3). This and other elements recovered allow the reconstruction of a very elaborate, and expensive, cloister arcade in the late 12th century Priory, certainly unexpected here given the relatively low

status ascribed to nunneries among religious houses as a whole. Another surprise was the discovery of two window jambs from an oriel (bay) window, probably of 14th or 15th century date, rebuilt into the farmhouse garden wall.

The project's photographic work divides into two parts. Firstly, the, upstanding Priory buildings were recorded by rectified photography, sufficiently accurate to allow stone-by-stone drawings to be made from the 'photos: and secondly, the site as a whole was covered by black-and-white and, colour shots. This general coverage itself divides between photos to record specific features within the survey area, and those recording broader views of the site, showing its topographical setting and recording the relationships between major features. The result will be a comprehensive photographic archive relating to the site.

The final part of the project comprises a survey of the surviving documentation, looking in particular at information relating to the post-Dissolution development of the site, showing aspects of its transition from a Priory to the church-farm complex present today.

At the time of writing, the final project report is in preparation for the Yorkshire Dales National Park, including a series of recommendations for the future management of the site, emphasising those areas under active threat or particularly vulnerable'to certain forms of land use. The Marrick research project has demonstrated the considerable benefits of bringing together the skills of a small group of people to bear on a complex site, the record.and protection of which are currently inadequate. The information return for a relatively small outlay in working hours and finance has been high, totally non-destructive, and serves to provide a sound basis for future planning decisions and research concerning this interesting site

CIFR

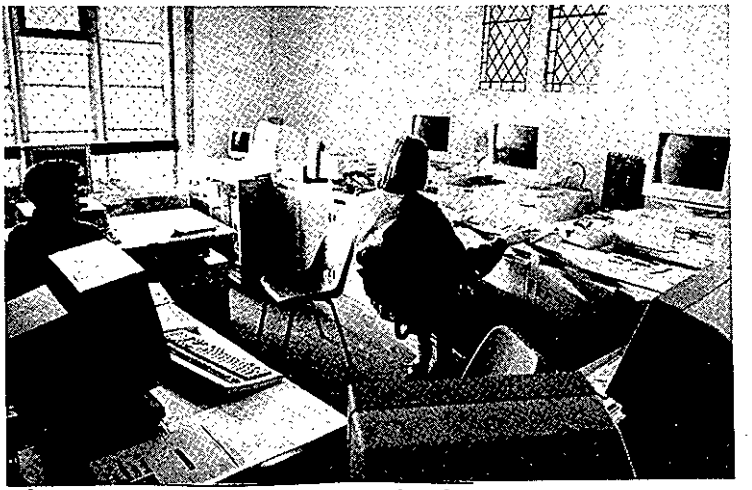
CIFR, The York Archaeological Trust's Finds Recording System

Introduction

'CIFR', or to give it its full title. the Computerised Integrated Finds Recording system, is used to record and catalogue every single object that Is found on YAT excavations. Computerised finds recording has been In use by the Finds and Conservation Departments since 1985, based on the old, pre-computer, finds card system. CIFR has seen many changes, such as conversion to dBASE III and restructuring to run on a very basic DNA network. A network is the name given to a set of computers linked together so that they may share access to the same data and programs.

In May 1988 the Finds Department moved to its new location at St Saviour's Church, also the home of the newly created Archaeological Resource Centre (ARC). The Computing Department took full advantage of this opportunity to give 'CIFR' major surgery and at the same time upgrade the network software, thus creating a much more powerful computer system.

We were able to make full use of the sophisticated programming techniques pioneered during the development of the Photographic Archiving System (PAS) and the Context Recording System (CRS) and transplant many new features into 'CIFR'. In fact, as is the way with ever increasing technological advancement, 'CIFR' has now leap-frogged ahead of 'CRS' and includes a host of additional features. Each time we alter a program we give it a higher version number; the current version of 'CIFR' In use Is 7.3. In this way we can



The computing area af fhe ARC

keep track of our programs and make sure that everyone has the latest copy.

NOVELL Network

'CIFR' is now running over a NOVELL network, a much more sophisticated network environment than the original DNA. At the hub of the network, is a fileserver, an ARCHE 386. A fileserver is an ordinary computer which acts as the storage space and 'brains' for all the terminals connected to it. Such computers are usually quite large and fast In order to hold lots of data and cope with the simultaneous work load of many people. The data is stored on what is called a 'hard disc'. This disc sits inside the machine and will hold many millions of characters **of** data.

Novell allows up to 100 people to be connected (or 'logged in') to the network at one time. The computer' jargon for a person using a computer system is a 'user'. One feature of a network is the ability to ensure that each user has his or her own password.into the network thus making sure that otherusers do not Interfere with

their personal data and documents. Another is a facility to set up a queuing system for the various printers attached to the fileserver. In this way many people can all use the same printer. The network software makes sure that each user's printout has their name on it.

Telephone Link to Conservation

A telephone. or 'modem'. link from the ARC to Conservation in Galmanhoe Lane allows communication between the two locations. The Conservation Department can log into the network and have exactly the same access to the finds data as the Finds Department have on the other side of town. The Conservation Department has a terminal, just like the ones in the ARC, but it is attached to a modem. Another terminal attached to the modem at the ARC mimics exactly what is happening on the Conservation Department's screen.

Software Installed on the Network

After logging into the network with name and password, the user is taken straight into 'CIFR'. From here, it is possible to choose a site and look at all the small finds or bulk finds from it. The glossaries containing all the key words and site names may also be checked. Other types of software may also be accessed.

A word-processing package called Wordstar is installed on the network, *as well* as a spreadsheet package called SuperCalc, used to draw graphs and charts. This is accessed automatically by 'CIFR'. when graphics options are requested. No knowledge of SuperCalc is required as all the calculations are done automatically by 'CIFR'.

The flexibility of employing a network and fileserver makes it also possible to run some software from individual terminals with their own hard discs. You still have

access to all the data on the network but your own computer behaves as if it were in fact not attached to the network. For instance, AutoCAD is a very large program that is used to draw maps and plans, and has to make many calculations as it runs. These calculations would slow the network down. The AutoCAD terminals are still attached to the network and so have access to the same data but they draw maps and plans using their own brains and not the brains of the fileserver. This has the advantage of not taking up vast amounts of the fileserver's tlme in the complex processing of AutoCAD data, but instead uses the hard'disc and processor of an individual terminal.

Data Entry, Validation and Editing

'CIFR' carries out extensive data checking, for example, ensuring that small find numbers are unique to individual sites and that capital letters are used at the beginning of small find names.

A sophistication of such data verification is the use of glossaries of terms for sitecode. simplex name, material and location. 'CIFR' checks that any such data entered is in the associated glossary, highlighting it as 'not in glossary' when necessary. This does not physically prevent data from being entered, which would be very tiresome. A Password system prevents unauthorised access to the glossaries.

An aid to the editing of and browsing through data is the 'filter' facility. It Is possible to'Isolate a particular set of records, such as all finds from a particular period, held at 'a particular location. This effectively creates a subset or 'dataset' of records matching the required criteria so that only those records are visible when browsing, editing and appending data. There are few limits to the complexity of the search criteria for the filter: It may be as simple or complicated as is required.

The 'global edit' feature of 'CIFR' is quite a powerful aid to the mass editing of data. It enables the changing of all entries in a particular field to a desired value. 'Global Edit' may be used to more sophisticated effect in conjunction with the **'filter'** facility. It is then possible to replace globally field entries for subsets of records, that is, only those records that have been isolated by the chosen filter.

Reports, Pies, Plots and Bars!

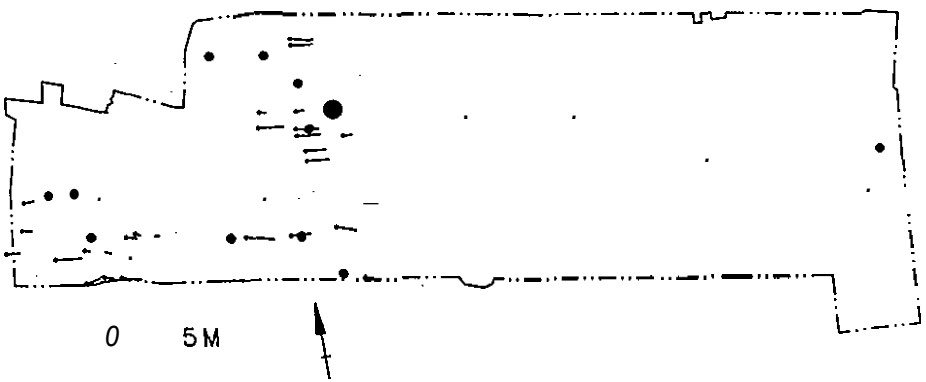
The creation of standard and user-defined reports, graphical representations and distribution plots are just some of the extensive data manipulation and retrieval features of 'CIFR'.

The 'complex find' feature enables complex search criteria to be built up, much like the 'filter' facility. Repeated information, such as drawings and photographs, where there may be several entries per small find, may be searched for. Substrings of text, null or positive entries and numerical ranges may also be used as search criteria.

The resultant selected records from a 'complex find' may then be used and manipulated in a variety of ways:

Firstly, reports of the selected small finds may be generated, in up to 3 levels of sorted order, i.e. all the records sorted by period and within that order sorted alphabetically by name and each type of object, then sorted by material. The user may choose to select which data is to appear by designing his or her own report, or choose one of a predefined set of standard reports. The reports may be either printed immediately or 'written to a named file for later printing. Soft (copies on computer disc), rather than hard (printed) copies of data may therefore be sent to outside bodies for their perusal.

Secondly, a breakdown of the contents of any one of name. material, location, catalogue type, period or phase may be obtained for the selected records, The breakdown may then be simplified, if requested, by amalgamating categories of data, before producing a graphic representation of the breakdown in the form of a pie or bar chart. You may, for example, wish to put all rings. brooches and pins into one category called 'jewellery'.



CIFR plot of clench. bolts from the 7 7th century cemetery area at 46-54 Fishergate

Thirdly, distribution plots may be produced for the group of small finds found by the 'complex find'. 'CIFR' simply wrltes the necessary site grid co-ordinates to a file. This flle may then be entered into AutoCAD, along with the outline of the site plan, to produce distribution plots for particular groups of small finds.

Catalogues

'CIFR' also facilitates the ultimate task of collating catalogues of small finds. 'CIFR' keeps track of catalogue types and numbers and Includes a catalogue renumbering feature. It is possible to renumber all the catalogue numbers for a particular catalogue type. by

selecting a starting and incremental value. Series of numbers such as 1,2,2.1,2.2,5, 7 etc. may be renumbered to 1,2,3,4,5,6 etc., beginning with 1 and using increments of 1. As new objects are added into the catalogue sequence they can all be given a sensible run of catalogue numbers. Once the catalogue is complete it can be printed in the right format to a Wordstar file for inclusion in a fascicule.

CIFR of the Future

The 'CIFR' of the not too distant future will involve the addition of full colour photographs seen at the touch of a button (or poke of a touch sensitive screen!), using the latest Interactive video technology already In use as part of the 'educational facilities of the ARC. New networks will be created within the Trust and new links to other sets of data will need to be created. New programming techniques will make 'CIFR' faster and more flexible. All this and much more coming to your screens soon . .

Karen Torevell
Jef Maytom

Past Lessons

One aspect of the Trust's work is its educational role, educating and informing groups bnd individuals of all ages about archaeology. However, as well as teaching about excavations, objects and different cultures, archaeology and Its techniques and approaches is an excellent vehicle for stimulating wider learning. The standing monuments in a graveyard, for example, can be used to convey a range of ideas such as dating by stylistic features, ritual and burial, sampling, mapping, bnalyslng the churchyard ecosystem and looking at weathering processes on the stones themselves. The evidence which makes up the archaeological record comprises many different kinds of material and remains of past human groups, and thereby lends itself well to observation, data collection and analysts. questioning and discussion. These are essential skills; Roman pottery for instance, can be used to learn about Roman people, but It can also be used to teach an understanding of the nature of evidence, technology and physical properties of materials.

This potential for learning and encouragement of understanding is not, of course, limited to the young. The York Archaeological Trust sees education and archaeology not as being age specific but open to all – Indeed It is the prime aim of the Trust to educate the public in archaeology – and this is reflected in its initiatives undertaken over the years. Perhaps best known is the Jorvik Vlklng Centre,. visited by over 5 million people, demonstrating that It is possible to interpret, educate and entertain The opening of the Archaeological Resource Centre thls year shows the Trust's continued commitment. These two centres, complementary In concept and approach provlde excellent educational facilities while still being

Members from the Norfolk branch of the Young Archaeologists' Club

of interest to the tourist and visiting family. Behind these two high profile centres, though, lie a whole range of wider initiatives.

For some years now the Trust has run a very successful annual scholarship, giving young people the rare opportunity to spend a week inside the Trust, becoming involved with many of the practical aspects of archaeological work. Quite a few of these 14-16 year old youngsters have then gone on to study archaeology at a higher level. Throughout the year the Trust's staff has a lot of contact with studentsfrom 'A' level up to post-

graduate level In a wide variety of learning situations. The staff also provideschool visits and excavation orientated guided tours, open days and interpretative displays. The Trust participates in an annual sixth form conference and other visiting groups from primary schools to the WEA. It Is perhaps not widely known that it also supports, to a large extent, the Young Archaeologists' Club. This is a national club'for 9-18 year olds, run from York where 'the club magazine is also produced. Membership is growing steadily, with thirteen reglonal branches organising" activities and co-ordinted through the Club Secretary. also based In the-city.

At the end of 1988, the Trust, acting jointly with the Council for British Archaeology, appointed, the author of this article as Education Officer to co-ordinate and promote archaeology and education at both local and national levels. This Officer works for the Trust and the CBA on a 20:80% basis and through his work the Trust has become involved In a great variety of activities. The Viking Centre. for example, is this year involved, through Its tourism links, in sponsoring a competition for teaching modern languages in North Yorkshire. As another illustration, members of the Deaf and Blind League attending their annual conference last year were given guided walks around York's archaeological sites and the JVC. Through the lectures and conferences which the Education Officer has given in his CBA capacity, the Trust's varied education programmes have found a wider audience.

'The future for archaeology and education holds many possibilities. For the first time, an official teaching document – the History National Curriculum Report – has recognised the role which archaeology can play in formal education. It states that school history has already established fruitful connectlons with archaeology and these should'be strengthened. The Trust is

certainly well suited to cater to these needs by building on its already strong foundations, not just in the teaching of history but in many other areas of the curriculum as well. What better way of Introducing young people to materials and technology than by looking at how people in the past made use of different materials and technologies to shape their environment? Of course, not all schools will be able to visit York, although a great many do, so the Trust will be producing a range of relevant, exciting and interesting study packs in a variety of formats.

The past is not just visible in the Trust's excavations, it Is all around us. Hopefully as more people, particularly the young. gain an appreciation of our common past and its place in the present, we can look forward to a future In which the past has an enriching. positive Influence upon us.

Gareth Binns
Education Officer

Anyone Interested in finding out more about the Young Archaeologists' Club either as an individual or institutional member should write to:

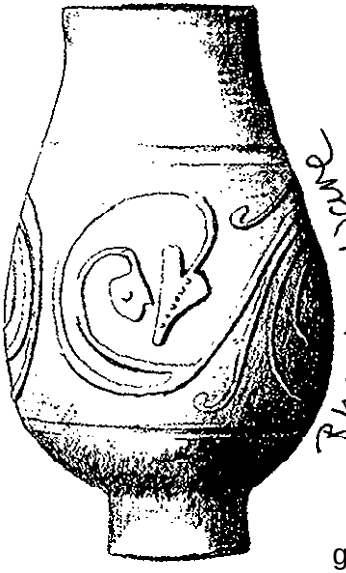
Young Archaeologists' Club
Clifford Street
York YO1 1RD

A Pot By Any Other Name . . .

To the non-specialist, the nomenclature used in Roman pottery publications can appear daunting. Technical jargon is often necessary to describe the subtleties of forms and various decorative techniques. but what is usually required to set the pot in human terms is a 'common name'.

Common names have an interesting way of being applied. Usually the chosen name refers to the place of manufacture or some technical attribute of the pottery. Sometimes; when a ware is recognised as being something distinctive; archaeologists will agree a sensible name which they will all use. More often, a name will be applied by the first person to study the type of pottery in question seriously. First impressions are not always the best.

'Dales ware' is a type of 3rd century cooking pot, with a distinctive rim and coarse shell-tempered fabric. It Is not, however, made in the Yorkshire Dales, but in Lincolnshire. 'Parisian ware' is a fine-ware fabric of the 2nd. and 3rd centuries, often found in a seductive black glossy fabric with embossed designs.. Its 'place of manufacture, however, is likely to lie outside the territory of the Parisi tribe. 'Rhenlsh ware.' is a category of shiny black beakers traditionally assumed to come from the Rhlneland. As research has progressed and our knowledge been refined, we now know that this Is an over-simplification. Most of the 'Rhenish' pottery we find In



York originates near Trier, on the Moselle. Some of the more striking examples come from eastern and central France, where for a time it was, known as 'black samian'. despite the fact that it bears little relationship to actual black samian.

During the 2nd century, York received a small amount of buff pottery with a red internal coating, known as 'Pompeian Red ware', notwithstanding that it is likely to have been made in Belgium! The name is not totally without logic, however, stemming from an original observation that the red ochre colour was similar to that used in the wall paintings at Pompeii. The orange glossy tableware known as 'samian' acquired its name from a supposed resemblance to pottery produced on Samos, an island in the Aegean, We now use the word with a small 's' to excuse the inexactitude. In the same way, we now use the term 'belgic' with a small 'b'. to recognise the fact that most 'belgic' pottery was not made by the Belgae. A type of 3rd and 4th century vessel featuring embossed decoration similar to that used on Saxon cremation urns was originally called 'Romano-Saxon'. It is now recognised that this may be a misnomer, but the name is retained within inverted commas through a lack of anything else to call it.

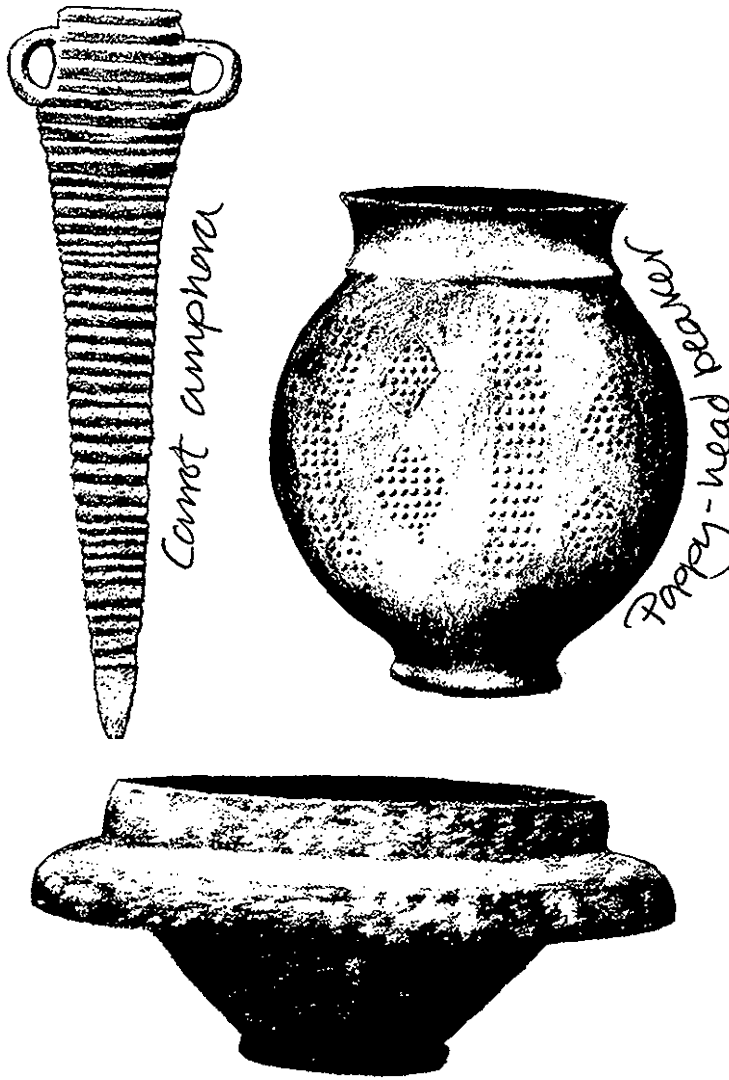
Pottery can acquire its name from the site upon which it was first recognised. Hence we have 'Huntcliff ware found, but not made, at the North Yorkshire signal station and 'Portchester D', excavated from but not manufactured at Portchester Castle.. Particularly in older archaeological reports, the use of common

names can be irritatingly casual. The 19th century antiquarians' discovery that glossy black beakers were produced at Upchurch in Kent resulted in the name 'Upchurch, ware' being liberally applied to anything black and shiny: A similar fate befell Castor Ware', with the result that the genuine Castor Ware manufactured near Peterborough is now referred to as 'Nene Valley, Colour Coated ware'.

Some names find their origins in. actual or supposed. technical attrlbutes of pottery. When these attrlbutes are recognised as inappropriate, the common name Is a prime candidate for alteration. Hence we should no longer read about 'Varnished ware' or 'Red glazed ware' In Roman pottery reports. 'Coarse Fumed ware' (also known as' 'Cooking Pot Fabric') became 'Black Burnished ware'. Samlan was once known as 'Terra Sigillata'; 'sigillata' referred to the use of figures in its moulded decoration. Samlan is often plain. however, so the name has been quietly dropped in Britain, if not on the Continent.

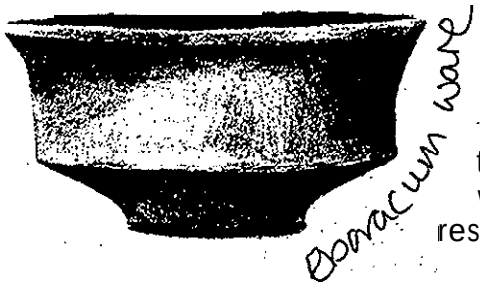
Distinctive forms can acquire names which imply more than they should. 'Raetian' mortaria found in York are likely to be 'products of Britain, not Raetia. Many other names seem quaint but are actually very appropriate descrlptlons, such as 'Carrot' amphorae or 'Poppyhead' beakers. Names that seem arcane often *have very* simple origins. The type of lamp technically known as an *'Achtformigelampe',* translates from German Into 'figure-of-eight-shaped-lamp'. One rare type of French pottery notable for its stippled decoration is known in Britain as 'Ceramique a l'eponge', an incomplete rendering of the original French description of the ware as 'potterydecorated using a sponge'.

Archaeology today aspires to being a science, so one could ask why we tolerate such bizarre nomencla-



Céramique à l'epaupe

ture. The simple answer to this question is that if a name has been around for long enough, it will stick. Names such as 'Pompeian Red ware' can be used in print; because every specialist knows what is meant by the term and accepts the imprecision in the interests of conformity. The second reason is sheer convenience. Redefining well-loved wares can lead to confusion and acrimony. 'North Lincolnshire late' handmade. shell-tempered ware' lacks the simple appeal of 'Dales ware'. There are occasions, however, where redefinition can be useful. Hence, York's 'Legionary ware' was rechristened 'Eboracum ware' in order to emphasise the likelihood that much of it was probably not made and used by the Legions.



Anyone who is not now thoroughly confused could always try becoming a pottery researcher,

Jason Monaghan

Bringing York's Past to Life:
A further series of lunchtime lectures

These slide-illustrated lectures are given by Trust staff and are held at the Arts Centre Micklegate, York. They begin at 12.30 prompt, last half an hour, are free of charge and all are welcome to attend.

Wednesday 3rd October 1990
'Drawing on **the Past' by** Glenys Boyles

Wednesday 7th November 1990
'A walk through Eboracum in AD 210' by Patrick Ottaway

Wednesday 5th December 1990
'A walk through Eorforwic in the year AD 730' by Richard Kemp

Wednesday 9th January 1991
'A walk through Jorvik in the year AD 930' by Richard Hall

Wednesday 6th February 1991
'A walk through York in the year 1090' by Peter Addyman

Wednesday 6th March 1991
'A walk through York in the year 1538' by Pam Graves

Wednesday 3rd April 1991
'The ARC sets sail' by Andrew Jones

Wednesday 1st May 1991
'York and Continental Europe – research themes for 1992' by Professor Martin Carver (University **of York)**

Meet The Archaeologist

Archaeologists handle data in vast, unwieldy quantities. Hardly surprising, then, that the York Archaeological Trust deploys an arsenal of computer hardware and software to deal with it. Overall responsibility for the design, implementation and maintenance of the Trust's computing systems rests on the shoulders of Jef Maytom.

Born in Lambeth, London, Jef confesses to an early interest in archaeology nurtured by the 'I-Spy' book, and recalls being particularly impressed by the Roman villa at Lullingstone, Kent, not least because of the number of 'I-Spy' points it enabled him to chalk up! However, visits to villas and castles notwithstanding, his main interest was the natural environment. This early enthusiasm was to influence Jef's subsequent career, resulting In a science-oriented programme of study at school and, eventually, a place at the University of York to study biology.

Jef's decision to study at. York partly reflected a desire to leave London, but was determined by the prospect of studying the environmental and ecological aspects and applications of biological research. He was, Chairman of the University Natural History Society whilst a student, and he remained In post after graduation when he was appolnted laboratory technician at the campus-based Environmental Archaeology Unit. He sorted samples and identified parasite remalns from a variety of sites In York and elsewhere. Jef's first involvement with field archaeology came in 1982; when he spent the summer Sieving and sorting environmental samples at Freswlck in northern Scotland.

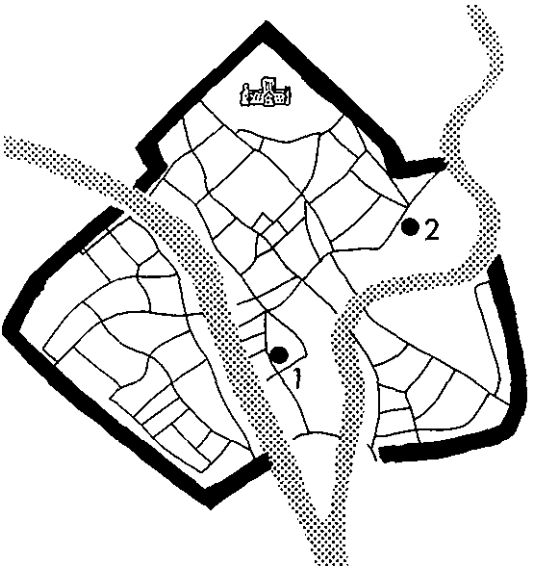
It was also at the EAU that Jef first became closely Involved with computing. Although there had been

some opportunity to study the subject at school (when he opted instead for hockey). and the use of computers formed an element of the biology degree course, the requirements of palaeoenvlronmental data handling demanded far more serious attention. Computing at the EAU brought Jef into contact wlth the University ComputIng Service where he worked full-time for a brief period, although not before he had designed the computerlseci recording system for the Trust's Jewbury skeletal material. Jef was back amongst the computers of the EAU, however, when, In early 1986, the YAT advertised the post of Computing Officer.

Having successfully negotiated the Interview, Jef discovered-the Trust's computing system ripe, for renovation, and feels he was fortunate that his appointment. occurred at a time when archaeological computing as a whole was on the verge of major developments. Jef sees much further scope for the employment of computers in providing public information, particularly in the publication of archaeological results. as well as the introduction of computerised videodiscs and videofootage Into the Trust's reports.

It should not be imagined, however, that our man Is in any way the stereotyped computer boffin. His performances as the Norse god Loki in the Viklng Festival's 'Ragnarok'. and as Herod in the 1988 York Mystery Plays testify to a long standing interest and, involvement in drama; Jef wryly notes that a recent performance as Ariel In 'The Tempest' was the first role which did not see him killed off before the end of the action! His interest in another performlng art, dance; is reflected in his running 'Punkes Delight', a local historical dance group, and In five years of traditional Yorkshire Longsword dancing;

For his less public pursuits, Jef admits to having largely-forsaken earlier, strenuous hobbies such as pot-holing and rock-climbing for the more sedate pleasures of gardening, an interest which he combined with his enthusiasm for natural history when teaching classes for the mentally ill. However. the great outdoors continues to appeal, and is reflected in his newest pastime.- archery. As for the future, Jef insists that he is no great planner, rather reacting to events, circumstances and impulses, but tha he would like to be shipwrecked, preferably somewhere hot and exotic. And presumably computerless, ...



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