III: The Heronbridge Archaeological Research Project An Interim Report on the 2002 and 2003 Seasons of the Society's New Fieldwork Initiative

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This report describes the results of fieldwork undertaken by the Chester Archaeological Society during the summers of 2002 and 2003 at the multi-period site and Scheduled Ancient Monument known as Heronbridge. This work constitutes the first two seasons of what it is hoped will become a long-term research project at this important site with which the Society has had a strong association ever since its discovery by a Society member in 1929.

Investigations during the initial stages of the project are to be concentrated on that part of the site lying between the modern road (Eaton Road = ancient Watling Street) which bisects the site and the River Dee. This area is known from previous work to contain the eastern half of a Roman roadside settlement and, overlying it, a large curvilinear enclosure of uncertain date and purpose defended by a rampart and ditch. The recent work has shown that the defences of this enclosure did not continue along the river bank and so it had always been open on that side. It has also been proved that its rampart was originally reinforced at the front by a substantial stone revetment. Examination of a possible entranceway in the middle of the west side has so far proved inconclusive but did encounter features cut into the rampart tentatively assigned to Civil War siegeworks. Pottery recovered from the upper levels of the ditch infill suggests it had already silted up almost to ground level by c. AD 1200. The earthwork is now thought most likely to have been constructed at some time in the period c. AD 890 — c. AD 980.

Investigation of the ancient river cliff at the north end of the site revealed a natural inlet which had been modified to function as a quay serving the Roman settlement. The sandstone bedrock which outcrops here had been cut back to form a straight and almost vertcal quayside. A ramped trackway led down from the north to provide access for carts. These works are provisionally dated to the early/mid 2nd century. Around the middle of the 3rd century, three graves were excavated in the rock close to the edge of the quay which by this time had fallen into disuse. Two were for adults and the third for a child. All three graves had been thoroughly ransacked in antiquity. Fragments of sculpture recovered from the fill of one of the graves were covered by a substantial and impressive funerary monument.

Introduction

Project Background

or much of its long history the Society has played an active role in the investigation of the archaeology of both Chester and the surrounding area, initiating and executing a wide range of fieldwork projects including a number of significant excavations. This branch of its activities declined in the 1970s with the advent of professional archaeology although its Journal continued, and continues, to provide a valuable medium for the publication of accounts of archaeological investigations and discoveries. Without active participation in fieldwork, however, societies such as ours tend to suffer a declining membership and an increasingly high age profile. Members and officers of Council have worked hard in recent years to bring about a rejuvenation of the Society through the adoption of various strategies and these have reversed the decline in membership. One action in recent years was the re-establishment of a Fieldwork Section and this has become increasingly active, frequently assisting the city council's archaeology service — Chester Archaeology — on research projects. By the turn of the millennium it was felt that the Society had now reached the stage where it was ready once more to undertake a substantial fieldwork project in its own right. The motivation for this was threefold: first, to make a significant contribution to improving knowledge of the archaeology of the area; second, to create further opportunities for both experienced amateurs and interested members of the general public to become involved in the investigation of their past and to improve or acquire relevant skills; and third, to encourage more people to join the Society thus helping to safeguard its future as an independent body promoting the protection and understanding of the past and its physical remains.

The site known as Heronbridge was an obvious choice for a research project. It lies close to Chester and is thus easily accessible. It is a fascinating complex of remains of many periods. Much of it has never been explored and there are many important questions about it still to be answered. In addition, the Society has a long association with it; it was discovered by one of its members in 1929 and the Society has been involved in one capacity or another with all of the subsequent investigations. Furthermore, all the published accounts of work at the site have appeared in the Society's *Journal*. Over the years many archaeologists have been associated with the site who went on to achieve considerable prominence. These include Brian Hartley, Dr Graham Webster, Professor Eric Birley, Hugh Thompson, David Morgan Evans and Professor Peter Salway.

While the project is designed around a volunteer workforce it has of course to be led and supported by professional archaeologists to provide direction and training, to see the work is carried out to a high standard, and to ensure the project's academic integrity. This would obviously be essential in any situation where an amateur society was proposing to investigate an archaeological site but particularly so in the case of Heronbridge which is a Scheduled Ancient Monument. Thus any work must fulfil requirements laid down by the Department of Culture, Media and Sport acting under advice from English Heritage. The writer, who has a long association with the site was commissioned to direct the Heronbridge Research Project (Mason 1976; 1988). Specialist finds advice along with supervision of the post-excavation procedures is being provided under contract by the staff of Chester Archaeology. The first season of excavation was planned for the summer of



III. III.1 Simple location map showing position of Heronbridge in relation to Chester and Eccleston

2001 but had to be postponed because of the outbreak of Foot and Mouth Disease that year. During the previous winter a programme of training sessions in archaeological theory and techniques was organised, given by staff of Chester Archaeology. Because of the postponement additional sessions were organised for the winter of 2001–02.

The project has been designed with an initial set of research objectives but it is anticipated that these will need to be modified and amended as each season's results are analysed. The process of formulating the project design has benefitted, and continues to benefit, from comments and suggestions made by both Mike Morris, Chester City Archaeologist, and Andrew Davison, English Heritage Regional Inspector of Ancient Monuments.

Location, Topography and Geology

The Heronbridge site lies in open countryside on the southern outskirts of Chester 2.5 km from the city centre and mid-way between the suburb of Handbridge and the village of Eccleston (III.1). The road linking these communities — Eaton Road — which passes through the site perpetuates very closely the line of the Roman road known as Watling Street which connected the legionary fortress of Deva with Whitchurch, Wroxeter and, ultimately, London (III.2). Approximately 200m to the east of the road and following a roughly parallel course lies the River Dee. The land hereabouts is generally gently undulating with a gradual fall to the east which increases significantly as the River Dee is approached. A number of streams cross the area from west to east on their way down to the river and in some cases these have eroded narrow deep defiles, especially east of the road. There is a significant east-west depression which defines the northern boundary of the site. This also marks the boundary between the parishes of St Mary's and Claverton. West of the road this marks the beginning of an afforested area. This is a spur of the woodland lining the driveway to the west known as the 'Chester Approach' which, prior to the construction of the Chester Southerly By-pass in the mid-1970s, led to Eaton Hall (III.3). East of the road this depression is occupied by the outbuildings of Heronbridge House. Close by the latter, in Field 1, there is a sudden and steep drop of about 4m down to the floodplain of the river which marks the line of the ancient riverbank. To the north, this has been modified by landscaping and extensive quarrying at the rear of Heronbridge House. This 'cliff' continues southwards as a prominent feature as far as the spot where it is intersected by the line of an ancient stream approaching from the west identified in previous excavations closer to Eaton Road and marked today by a dip in the landscape. Beyond this point the profile of the slope down to the river's floodplain becomes more even and gentle. This continues to be the situation well into the next field to the south (Field 2) but this changes suddenly a little way beyond where the river has eroded much closer to Eaton Road and the slopes become much steeper once more. This effectively marks the southern limit of the area of ancient settlement and the boundary of the Scheduled area.

The site has long been used as open pasture but extensive ridge and furrow shows it to have been ploughed in earlier times. The subsoil is the usual heavy clay found locally but there are outcrops of rock at a few points along the present riverbank. Rock is also visible in the ancient riverbank at the the north end of Field 1, continuing as a quarried face to the rear (east) of Heronbridge House.



III. III.2 Map of Roman Chester and environs

Site Profile

Heronbridge is a complex and important site containing archaeological remains of various periods. Most obviously it is an example of relict medieval landscape (III.15). West of Eaton Road there are extensive and well-preserved areas of broad, curving ridge-and-furrow typical of medieval open-field agriculture (Kenyon 1979). A number of much smaller areas defined by ditches are discernible which seem to relate to later, enclosed land-holdings like



III. III.3 Site plan showing location of earthwork and investigations prior to 2002

those depicted on a Grosvenor Estate map of 1737. Also clearly visible running across this area is the line of the so-called 'Old Road' which at some stage replaced the Roman road and remained in use until the ancient route was reinstated in the 1820s when new driveways or 'approaches' to Eaton Hall were constructed. Why the road was diverted to the west is unknown but it may be that maintaining the Roman road, susceptible to erosion by streams

crossing this area, simply became too onerous. The 'Old Road' can be traced as a sunken trackway from the point where it diverges from Eaton Road to run in a south-westerly direction diagonally across Field 3 to a point where it disappears into the woodland bordering the 'Chester Approach' or 'Duke's Drive'. It runs more or less parallel with Eaton Road for some distance until eventually curving back sharply to the east as it enters the village of Eccleston. The 'Old Road' clearly cuts across the medieval ridge-and-furrow. Close to the southern boundary of Field 3 a raised trackway heads off from the 'Old Road' towards the north-west, perhaps heading for the deserted medieval village of Claverton known to lie a short distance away in that direction.

In places the ridge-and-furrow and other agricultural features visible west of Eaton Road can be seen to pass beneath it to continue in the fields on the opposite side. Both these and areas of ridge-and-furrow further north beyond the diversion respect the principal landscape feature east of Eaton Road, namely a low bank which delineates a crescent-shaped area about 6ha in size (III.3). This takes up the greater part of Field 1 and nearly all of Field 2 to the south and its western side runs parallel with and around 20m back from Eaton Road. The northern arm of this bank curves gently down to the river. In contrast, the south end curves around sharply to follow the crest of the steep natural slope down to the old floodplain. The south end of the bank is the best preserved. The bank appears unbroken throughout its length except for one point at the approximate centre of its west side where its normally regular profile is interrupted. It is notable that what appears to be a branch track leads from the 'Old Road' heading directly for this spot. East of the bank at this point there is a wide flat-bottomed depression which leads down directly to the river and there is another similar feature in Field 2.

Of the other major components of the site nothing is now visible. Excavations in 1930 and 1931 disclosed the existence of an inhumation cemetery east of Eaton Road in Field 1. Its extent is unknown and its date is equally unclear although it is obviously later than the Roman settlement and earlier than the earthwork. Finally, underlying all the features described so far, lie the remains of a sizeable Roman settlement which lined Watling Street for a considerable distance.

History of Previous Work

Research by Victorian antiquarians such as W. Thompson Watkin had already positively identified Eaton Road as the line of the Roman road to Whitchurch by the late 19th century (1886, 47–9). Sections of its paving were occasionally exposed by road and drainage works and in 1848 Roman cremation burials were found beside it at Primrose Hill (near the southern end of the earthwork in Field 2). These were regarded as outliers belonging to the fortress cemetery known to line Eaton Road closer to the city. The earliest known investigations at Heronbridge were carried out by Mr W.J. Williams — known as 'Walrus' on account of his impressive moustache — in the late 1920s who was testing the possibility that the stretch of low bank running parallel with Eaton Road on its east side was the *agger* of the Roman road (Williams, 1933a). While this turned out not to be the case — the road was subsequently found to run much closer to Eaton Road — his trenches did reveal the remains of a hitherto unsuspected Roman settlement along with part of an inhumation cemetery.



The spot where the burials were found, halfway along the west edge of Field 1, was chosen for more extensive investigation by a 'professional team' directed by Dr James Petch of Manchester University in collaboration with Williams (Ill.3). The results of this work, which took place over two seasons in 1930 and 1931, were published in the Chester Archaeological Society Journal as were discoveries made by Williams in additional trenches cut in the same field (Petch 1933; Williams 1933a; 1933b). The remains of Roman masonry structures of more than one period fronting on to the Roman road were found. The earliest, positioned well back from the road, consisted of two pairs of small stone structures interpreted as furnaces. These had been succeeded by a group of retangular buildings with well-built mortar

bonded walls (III.4). The description of their remains indicates they had had a number of structural phases while the discovery of items of carved stonework re-used in their footings (a column capital, a moulded slab and a large block of ashlar) points to the former existence of a structure of some architectural pretension in the vicinity (III.5). That this may have been a shrine or small temple is suggested by the additional discovery amongst the collapsed fabric of one wall of an altar dedicated to the *Matres Ollototae* (the 'foreign(?) Mother Goddesses') by Julius Secundus and Aelia Augustina (RIB 571) (III.6).

Approximately 20 skeletons were fully or partially excavated some of which lay on top of the stubs of Roman walls (Ills. 7 & 8). Some of the skeletons were complete while others had been disturbed. In some cases they had been buried close together, some on their back and some on their side, while others were spaced some distance apart. Examination of the remains showed them all to be male, the majority young or middle-aged at death (Davies 1933). Nine of the skulls displayed clear signs of injury in the form of long, clean, cuts inflicted by a sharp blade of some length such as a sword. The injuries were considered to have been the cause of death rather than inflicted by later disturbance of the burials and this, together with the rough nature of the interments, led to the suggestion that this was a battle cemetery. A thick layer of clay found sealing some of the burials was thought to be flooring associated with the latest Roman buildings, themselves assigned to the first half of the 3rd century, and so the cemetery was thought to be Roman. Later work was to show that the clay most probably belonged to the bank of the post-Roman earthwork suggesting that the burials, too, were post-Roman.

Williams excavated another trench, at right-angles to Eaton Road, about 130m south of the main area of investigation (1933b). This successfully located the Roman road, here around

above: III. III.4 1930-31 excavations, footings of side-wall of Roman strip-building



III. III.5 1930–31 excavations, footings of Roman building incorporating re-used architectural fragments.



III. III.6 Altar dedicated to the Mother Goddesses Ollototae



IIIs. III.7 and 8 Post-Roman burials found 1930-31

7.5m wide, with a stone-lined gutter along its east side. Another gutter was located about 16m further east, presumably belonging to the courtyard of a building. This was sealed by a thick layer of clay which the drawn section shows was part of the capping of the post-Roman bank which had subsided rearwards (III.9). West of this was a hump of black soil which formed the lower portion of the bank and west of this again the remainder of its clay capping which had slumped forwards. Excavation beneath the latter revealed a V-shaped ditch c. 4.5m wide and 2.4m deep from which the material to form the bank had been obtained. A large silt-filled depression found towards the west side of Petch's excavation which had cut through the remains of the Roman buildings was obviously a continuation of this ditch. Immediately east of the ditch Williams found a 1.8m length of walling which he interpreted as a frontal revetment for the bank. He states that '..during the preliminary digging this wall was proved at five points over a range of 150 yards and at one place stood three feet in height.' (1933a, 53). Unfortunately, like many of the scores of other exploratory test-pits Williams excavated in later years across the entire site, the location of these explorations went largely unrecorded.

Fortunately, this was not the case with the trench cut through the northern arm of the bank in 1931 (Petch 1933, 7–8 with Pl XVIII). The bank was found to have been more affected by erosion and ploughing but an excellent section across the ditch was obtained which here was 5.20m wide and 2.70m deep as measured from the surface of the natural clay (III.10). The fill, as in other sections, was undifferentiated dark grey/black silt and mud but here there was a considerable quantity of rubble, possibly derived from the collapsed frontal revetment. As in all the other sections the only dating material to come from either the ditch fill or the bank was residual Roman pottery.

Investigations were resumed at Heronbridge after World War II directed initially by Williams with the assistance of Brian Hartley and subsequently by the latter aided by K.F. Kaine. The area selected lay towards the north end of Field 1 and excavation began adjacent to one of the two craters made in this area by German bombs during the War. These still provide useful watering-holes for cattle. Work began in 1947 and continued intermittently until 1953 by which time a significant proportion of the road frontage (designated Sites I – III by the excavators) in this part of the settlement had been explored (Hartley 1952; 1954; Hartley & Kaine 1954; Taylor 1956) (Ills.3 & 11-14). A major advance was the discovery that the buildings of the earliest occupation phase, commencing c. AD 90, had been of timber (III.11). Damage caused by later building meant that in no case could the complete plan of one of these primary buildings be recovered. In general terms however they were rectangular, laid out at a right-angle to the road frontage, and with approximate average dimensions of 8 x 25m. A variety of constructional techniques had been employed. In some, the basal horizontal timbers for the walls were set directly into the ground while, in others, they were laid on sleeper-walls of sandstone rubble. One of these buildings was open-sided and was accompanied by a stone platform incorporating a hearth. Clay crucibles and moulds along with bronze slag from associated deposits show this to have been the workshop of a bronze-smith who produced fittings for small chests or boxes and thin plates with pierced crescentric decoration suitable for attaching to articles of wood and leather. The most northerly feature encountered belonging to this phase was actually a small, two-chambered masonry structure with an accompanying

III. III.9 Section through post-Roman earthwork, SW corner Field 2 1930-33

III. III.10 Section through northern arm of post-Roman earthwork

III. III.13 Section across stream-bed and 'dock'

circular kiln possibly used for corn-drying or brewing. A stream ran between two of the buildings on its way down to the river, occupying the centre of a hollow about 18m wide and 3m deep. A number of gullies were dug to channel surface water into it.

This part of the settlement underwent a thorough re-planning in the Hadrianic period which saw the original timber buildings replaced by far more substantial masonry structures.

III. III.11 1946-53 excavations, plan of earliest Roman buildings.

III. III.12 1946-53 excavations, plan of Hadrianic buildings and 'dock'

Parts of seven such buildings, aligned like their predecessors end-on to the main road, were explored in the 1947-53 campaign (Ill. 12). They seem to have been laid out in blocks of three with narrow eavesdrip spaces between adjacent buildings and with neighbouring blocks separated by a 6m wide street. In terms of size, the buildings ranged from 7.30 to 10.35m in width and from 30 to 35m in length and conform to a type of building commonly found in the commercial quarter of Roman towns often referred to in modern parlance as 'strip-buildings'. One or two of these buildings had one side open to the elements like the earlier workshop but the majority were more sophisticated with interiors divided into clearly defined units according to function. Each building's frontage was open to Watling Street and obviously functioned as a shop, presumably closed by large shutters at the end of business each day. There was usually either an open working area or covered storage space behind this in the central part of the building with the living accommodation placed at the rear. The walls, averaging 0.50m thick above one or more offset courses, were built of neatly dressed sandstone blocks bonded with mortar. The internal floors were frequently of concrete and many of the windows were glazed. Some of these buildings may well have had a second storey.

The stream-bed running across the area was extensively modified during the Hadrianic re-planning. On the south side a retaining wall was built a little way back from the centre-line of the hollow and the dip behind it filled in with sandstone rubble to form a solid platform (III.13). The wall was built of small masonry but was capped at ground level with a line of large blocks of sandstone. Its counterpart to the north was built almost exactly on the lip of the hollow and so did not need to be such a massive affair consisting instead of a single line of large blocks set atop a 1m wide foundation. A layer of sandstone rubble was laid down to the north to form a 10m wide strip of hardstanding. By these means the width of the hollow was reduced to 7.10m. The bed of the watercourse was also modified. On the north side a series of steps, each 450mm wide and 200-300mm high, was cut into the natural clay. Scraps of lead recovered from the filling of the channel might suggest the steps were originally covered with a protective lead sheathing. The steps may well have been a local feature as a sounding 8m east of the main section traced the north wall down for 2.10m without any sign of this phenomenon. The excavators tentatively interpreted this feature as a dock although they recognised that the difference in levels between the channel and the river (a minimum of 8m) would have required a system of locks. They did stress however that other functions — such as a reservoir — were possible and that the matter could only be settled by further excavation.

A building south of the 'dock' produced evidence for two later phases of structural activity and it, like its neighbours to judge by the general date-range of the pottery recovered, continued in use well into the 3rd century.

In 1954 and 1955 Hartley excavated three more sections through the bank of the earthwork enclosure, one through the northern arm about 35m closer to the river than that dug by Williams in 1930 and two some distance north of the main excavation site of 1930–31 (Taylor 1956, 125–6; Thompson 1965). Although unpublished in detail the results proved conclusively that the bank was later than the end of the 3rd century as it

sealed an occupation layer containing a coin of Claudius Gothicus (AD 268–70). Work resumed at Heronbridge in 1958, this time directed jointly by Hugh Thompson, curator of the Grosvenor Museum and John Eames, lecturer in archaeology at the University of Liverpool, as a summer school in archaeology on behalf of the latter's Extra-Mural Department. Initially work was concentrated at the north end of the area investigated in 1947–53. A building open on its north side had succeeded the northernmost stripbuilding here. It contained a circular stone base at its west end from which issued a lead pipe, which may originally have conveyed water from a tank set on the base. Vitrified and distorted roof-tiles bearing traces of lead glaze suggested lead-working and a number of shallow sandstone troughs were also found. Trial-trenching further to the north revealed areas of rough paving but no structures (Thompson 1965, 64).

Williams's explorations also extended to the land on the opposite (west) side of Eaton Road. Most of his energies appear to have been devoted to an area about 90m north-west of the main 1930–31 site. Here he found traces of several strip-buildings along with, a little further north, a column base, this last perhaps indicating a buiding of a slightly more sophisticated nature. Eames and Thompson excavated a little to the south of this during the 1958–60 campaign. As on the opposite side of the road late first century timber buildings had been replaced by stone strip-buildings during the Hadrianic period (Thompson 1965, 64). The final work at Heronbridge was undertaken by Dennis Petch, Curator of the Grosvenor Museum, in 1966 and 1967 assisted by members of the Society (Wilson 1967, 180). Particularly notable was the discovery that building work and street repairs were taking place in the early 4th century. This supports Williams's claim of having discovered a building of this date — supposedly equipped with a hypocaust — at the north end of the settlement (Hartley 1952, 10 n.7).

None of the work undertaken between 1954 and 1967 has been published. However, in most cases the records have been acquired as part of the archive compilation process which forms an integral part of the current project and these will be analysed and worked up ready for inclusion in the final publication.

In 1972, as part of the preparatory process for the construction of the Chester Southerly By-Pass (now part of the A55), an excavation was mounted at the point where the planned route was to cut across Eaton Road (III.3). This picked up part of the Roman road immediately east of its modern successor (Petch 1975). It also demonstrated that the Roman settlement did not extend this far south. A rescue excavation directly opposite this spot was undertaken by the present writer in 1975 during clearance works for the new road when an isolated Roman building — probably a barn — was discovered unexpectedly (Mason 1976).

Finally, in 1996, a geophysical survey (Resistivity and Magnetic) of certain parts of the site was carried out by Gifford & Partners on behalf of the Grosvenor Estate. This confirmed the presence of buildings along the frontage of the Roman road throughout Fields 1 and 2 but seemingly petering out before the next field to the south. In addition, survey west of the road opposite Field 2 indicated a number of potential structural features along with ditches and trackways.

Review of existing knowledge and theories

The Roman Settlement

From the sum of work carried out so far it is clear that the Roman settlement lined both sides of Watling Street for a distance of at least 650m (Ill.14). Occupation appears to have been concentrated along the road frontage although it must be stressed that little exploration of the areas to the rear has occurred. The predominant form of building in the settlement is the 'strip-building' common in commercially based communities and it is clear from the evidence relating to the use of individual buildings that some, if not most, were occupied by artisans and traders with metal-working seemingly one of the major occupations. Traffic using this major highway would have been one source of customers and there was also presumably an economic relationship with both the garrison at Chester and the population of the civil settlement beside it (canabae legionis). On present evidence the Heronbridge settlement came into being within a decade or two of the foundation of the fortress and with occupation continuing, at least in some parts, well into the 4th century. There is a consistent picture of major rebuilding in the Hadrianic period and it seems that the entire settlement was reconstructed; laid out on more regular lines ---possibly in blocks 1 actus square (that is, with sides of 120 Roman feet) — and provided with an improved infrastructure. The buildings then erected were substantial, wellappointed houses cum shops which in terms of construction and comforts were comparable with those in the commercial quarter of the *canabae* occupying what is now the Foregate Street area. The settlement was thus thoroughly Romanised in character and the collection of carved architectural stonework from the site hints at the existence of one or more buildings more elaborate than those currently known.

The settlement clearly continued to be occupied throughout the 3rd century and into the 4th century though the extent of this later occupation is unclear. Nothing is known about the end of the settlement but the proximity of the village of Eccleston, where the *eccles* element of its name is thought to indicate the existence of an early Christian community at the time of the Anglo-Saxon settlement, raises tantalising possibilities of continuity of occupation through the sub-Roman period (Thomas 1981, 264). The original churchyard here appears to have been oval in shape, again suggestive of an early post-Roman origin.

It was a considerable puzzle to the early excavators at Heronbridge why there should have been a substantial civil settlement so close to the legionary fortress when there was another one — the *canabae legionis* — immediately beside it. Hartley suggested it may have developed around a military transhipment centre. He postulated that obstacles in the river prevented barges from the legionary pottery and tile/brick works at Holt approaching any closer to the fortress thus requiring the offloading of their cargoes at Heronbridge for transfer to carts for the final leg of the journey to *Deva* (1952, 13). An alternative suggestion by Thompson saw Heronbridge as a settlement populated principally by veterans 'attracted by the proximity of the fortress and the hope of commercial gain, or even planted there as official policy' (1965, 65). Veterans may well have formed an element in the population of Heronbridge but there is no evidence of it being a planned settlement for them. There is also no proof that the river was unnavigable below the site in the Roman period and the legionary engineers would have been perfectly capable of making channels through any rock outcrops and/or overcoming any other obstacles. Also,

III. III.14 Roman Heronbridge; stone buildings, Hadrianic and later

had Heronbridge been a transhipment centre for the output of the Holt depot it is odd, given the number of breakages that would be bound to occur, that only a single stamped legionary tile has come from the site.

In reality, the existence of two nucleated civil settlements near a legionary fortress is not at all unusual but is in fact a phenomenon that can be found at nearly all legionary fortresses in the northern frontier provinces of the empire (Mason 1988). The pattern of

settlement is usually as follows. Immediately outside the fortress was a civil settlement whose history, development and fortunes mirrored those of the fortress itself. This was the canabae legionis and its population was composed of traders, merchants and artisans of all types who made their living by supplying the soldiers with goods, services and entertainments during their periods of recreation. There were also veterans and their families along with the common-law wives of serving soldiers and their children. The inhabitants thus had very close economic and often personal ties with the garrison. The Roman citizens in this community formed the pseudo-autonomous corporate body of cives Romani et veterani consistentes ad legionem ... that is 'the Roman citizens and veterans residing (next to the base of) legion so-and-so' and elected magistrates to look after the running of their town-like community. This community buried its dead in the same cemeteries as the legion. At a distance of 1.5–2.5km from the fortress and separated from both it and the canabae by an open space stood a second civil settlement, much larger than any of the others in the vicinity, which possessed its own cemeteries. This outer settlement had the status of a village/small town or vicus and was a more orthodox community. This describes precisely the spatial relationship of the Chester *canabae* to Heronbridge. The pattern is replicated at the legionary fortress at Caerleon in South Wales where the equivalent settlement to Heronbridge lay at Great Bulmore 2km to the eastnorth-east beside the River Usk (Burnham 2001, 316-17 & Fig. 3).

Various theories have been advanced to explain this 'duality of settlement' as it has been called, the most plausible seeing the root cause lying in territorial/administrative arrangements. Thus the *canabae* lay on land controlled by the military on behalf of the state. Thus it could not develop into a fully self-governing town nor could the inhabitants own the land where they lived. The *vicus* by contrast lay outside the legionary *territorium* on land forming part of the neighbouring civil authority, in the case of Heronbridge the *Civitas Cornoviorum* with its tribal capital at Wroxeter. In contrast to the outlying *vicus* at many other fortresses Heronbridge is free of modern settlement. It is relatively undamaged and accessible and thus has the potential through further research to make a significant contribution to advancing knowledge and understanding of this double-settlement phenomenon.

Post Roman Cemetery and Earthwork Enclosure

No traces of human burials came to light in the trenches excavated to the north and to the south of the main 1930–31 site. Consequently the so-called battle cemetery would appear to be confined to the area beneath the central stretch of the earthwork's west side. The exclusively male character of the burials, the apparently violent nature of their deaths, the absence of grave markers or tomb structures, and certain other features of the burials themselves are all suggestive of hasty interment after battle. The absence of grave-goods and the west-east orientation of at least some of the burials might suggest Christian practices although the alignment might simply be fortuitous. However, if really battle casualties the bodies may well have been stripped of any possessions before being buried. Graham Webster in the 1950s floated the idea that the burials could be casualties from the battle fought somewhere near Chester c. A.D. 616 when the English army of Aethelfrith of Northumbria defeated the combined British forces of Powys and Gwynedd, slaying in the process several hundred monks from the monastery of Bangor-on-Dee who had come to pray for the British side (1951, 42). In the following decade Thompson took up this idea

and developed it further by suggesting that the earthwork enclosure might be a defended bridgehead thrown up by Aethelfrith after his victory (1965, 64).

More recently, J.D. Bu'Lock (1972, 8) suggested the earthwork could be the enclosing bank of an early monastic establishment while Lloyd and Jennifer Laing concluded that the earthwork was probably a redoubt connected with the siege of Chester during the Civil War (1985). Finally, in an article published in 1999, Austin linked a number of natural and man-made features to suggest an even larger monastic enclosure stretching as far as Eccleston itself (Austin 1999, 68–9 and Ills. 3a & 3b).

The formation of the earthwork enclosure, which entailed the excavation into solid clay of 600 linear metres of ditch 3m deep, along with the construction of an equivalent length of bank or rampart, was obviously a major undertaking. It would have required organisation, considerable manpower and of course a powerful incentive to build such a major defended enclosure. Another possible context — one considered by Laing and Laing but ultimately rejected by them (1985, 54–7) — is that it belongs to the era of Scandinavian settlement (and warfare) in the later 9th and 10th centuries. There is a particular resonance with Viking forts and fortified settlements in that their defensive circuits were usually curvilinear, they were frequently sited beside a river, and lacked defences along the waterfront (e.g. Dyer 1972).

As in the case of the earthwork the lack of datable material clearly associated with the burials has allowed wide-ranging speculation. In the 1980s an attempt was made to relocate the skeletal material taken to Manchester Museum in the 1930s with a view to having one or more samples Carbon-14 dated. Unfortunately this proved unsuccessful. It is intended to pursue this again as part of the new project.

River Crossing(?)

The name of the site long ago gave rise to speculation about the possibility of an ancient river crossing. Some of the early excavators noted the outcrop of rock in the riverbank near the south-east corner of Field 1 and suggested this might have been a bridge abutment. Laing and Laing on the other hand considered a crossing near Heronbridge House more likely. Before 1824 Heronbridge was actually known as Iron Bridge. In that year a bridge built of iron was constructed to span the Dee on the Eaton Estate a few kilometres to the south and so, to avoid confusion, the old Iron Bridge became Heronbridge, perhaps because of the heronry that existed along this stretch of the river at the time. Ironbridge is held to be a corrupt version (via the medieval Latin '*pons ferreus*') of the Old English *hyrne-brycg* meaning 'bridge at a secluded bend' (Dodgson 1968, 59–61). Finds of Roman and later material on the east side of the river reported by metal-detectorists in recent decades have added weight to the theory of an ancient river crossing.

The Research Agenda

It is evident from the foregoing that there is still a great deal to learn about all periods and phases of the Heronbridge site, including much that is fairly basic. As far as the Roman settlement is concerned this includes such aspects as the physical limits of the built-up area, the degree of planning in its layout, the range and quality of building-types, the level of infrastructure provided (e.g. water-supply, drainage, bathing facilities), the occupations and activities of the inhabitants (in other words how did they make their living), the general wealth of the population and the degree of Romanisation, the relationship of the settlement to the surrounding landscape (i.e. evidence of agricultural activity, trackways hinting at links with neighbouring farms), and of course the changing fortunes of the settlement over time. Inquiries of a more particular nature encompass the true function of Hartley's so-called 'dock' and a more accurate dating of the settlement's beginnings.

The earliest known event in the post-Roman history of the site is the appearance of the socalled battle cemetery. Obtaining a precise date for these burials is obviously very desirable both for attempting to understand the historical context in which they occurred and the place of the cemetery in the overall chronology of the site. As mentioned above, the Heronbridge/ Eccleston area is of potential significance for sub-Roman/Dark Age occupation in the area and the possibility that the cemetery relates to this period should be tested. Dating the earthwork which overlies the cemetery is also a priority. Both its general form and its relationship with elements of the neighbouring medieval/early post-medieval cultivation features and enclosures imply it is the earliest component of the relict landscape. Going strictly by the available dating evidence, however, it could belong to any time between c. AD 400 and c. AD 1650. Confirming that the enclosure really did lack defences along the river frontage and determining the presence/absence of a stone revetment at the front of its rampart are also high on the list of priorities for these could be important typological clues by which to date it. Searching for contemporary structures within its interior and examining the possible entrance/gateway in the centre of the earthwork enclosure's west side are other obvious targets for initial research.

Moving on to the later history of the site, the date and reason/s for the westwards diversion of Eaton Road is of considerable interest and there is also the more general question of the possible river-crossing and activity or even actual occupation on the east bank of the Dee.

Initial Research Objectives

There was certainly no shortage of subjects to choose from for the first phase of the project but enthusiasm had to be tempered by a cautious appraisal of what could realistically be achieved with the scale of financial resources and size of workforce likely to be available. For this initial phase it was decided that efforts would most profitably be concentrated on that portion of the site lying east of Eaton Road. Although the bulk of the previous investigations had taken place here they had left a number of important questions unanswered and it was felt that solutions might be obtained by the excavation of carefully selected and quite modestly sized areas. In this way outstanding matters left over from previous work might be clarified, and the core of the voluntary workforce become fully proficient, before moving on to tackle the challenges presented by exploring previously untouched areas of the site. A number of objectives were selected for the first phase of work, some notionally apportioned to years 1 and 2 respectively but leaving sufficient flexibility in the programme to vary priorities in the face of the unexpected and to carry the work over into a third season. Inevitably, discoveries would occur which would cause the order of work to change when reviewed at the end of each season. In the longer term, and provided all goes according to plan, the exploration is envisaged of a sizeable sample of that portion of the Roman settlement lying west of Eaton Road. Little investigation has taken place here and it is hoped that a detailed picture of the entire history of Roman, and perhaps even sub-Roman, Heronbridge can be obtained.

For Season 1 (2002) the objectives were as follows:

- 1 To examine, by means of visual inspection and minimal clearance, an outcrop of rock in the riverbank at the south-east corner of Field 1 which certain earlier investigators had posited as a quay or the remains of a bridge abutment.
- 2 To search for traces of roadway/embankment leading from the direction of Eaton Road down to up to 1). This to involve the excavation of an area measuring 3 x 15 m (Trench I) which will also serve as a general check for the presence of Roman or later structures and features on this part of the site including any riverside continuation of the earthwork enclosure's defences.
- 3 Excavation of an east-west section just back from the line of the ancient riverbank and within the area enclosed by the post-Roman earthwork to search for presence of riverside defences. Size of area = $3 \times 15 \text{ m}$ (Trench II).
- 4 Depending on results of 1) and 2), trial excavation and geophysical survey at selected locations on east side of river.
- 5 Explore the riverside end of the so-called dock sectioned by Hartley and Williams in the 1950s. The spot selected lies at the point where the feature meets the ancient river bank and where two of the large blocks of the revetment of its north side are partially exposed (Trench III) on plan. It is intended to excavate a transverse section across the full width of the 'dock' channel down to its base and extending a maximum of 3 m west of its junction with the ancient river bank. Depending on ground conditions, an area of fill immediately to the east will also be excavated to a depth no greater than 1 m below the floor of the 'dock'. The section across the 'dock' channel will be continued for a distance of 4 m to either side to check for associated features.
- 6 Clean and record the near vertical face of the ancient river bank north of 5) checking for signs of quarrying and other man-made features.
- 7 Investigate the possibility of riverside structures north of 5) by means of geophysical surveying and trial excavation at selected spots as a check.
- 8 Cut new section across the north side of the earthwork enclosure (Trench IV). Size of trench 5 x 20 m maximum. Particular attention to be paid to the recovery of paleo-environmental material the survival of which is indicated by previous investigations.

Objectives for Season 2 (2003), continuing into Season 3 (2004) if necessary:

9 Area excavation of site of possible entrance in middle of west side of earthwork enclosure (Trench V). Exploration of any underlying Roman buildings to be decided in light of results. If affirmative, this will continue into Season 3.

III. III.16 Plan of Trench V 2003 showing Civil War features

- 10 Area excavation within earthwork enclosure in order to a) seek traces of contemporary buildings and b) to determine nature of activity in backland areas of Roman settlement to rear of road frontage buildings.
- 11 Excavation of a section through the previously unexplored south side of earthwork at location to be determined.

Fairly predictably, this programme has had to be modified as work progressed. In some cases, the discoveries made were so interesting that it was decided to continue excavation for more than one season. In others, either adverse weather and ground conditions or disappointing results led to excavation being cut short. The amount of additional work inspired by some discoveries has meant that some items in the programme have had to be postponed. These are essentially the section through the southern arc of the earthwork — item 11 above — and exploration on the east bank of the river. This last would have been difficult in any case during 2002 and 2003 owing to complications of access caused by major engineering works at the Huntingdon water treatment plant.

Results

Post-Medieval: Civil War Siegeworks?

As listed under item 9 above, one trench (V) was positioned a short distance north of the gateway giving access into Field 1 from Eaton Road in order to test the possibility that

III. III.17 View of Trench V 2003. Civil War features viewed from east

the pronounced dip observable in the earthwork bank here marked the site of an entrance. The trench, the excavation of which commenced in 2003, also encompassed an area on its west side of a size sufficient to include the ditch which normally accompanies the bank. Removal of the turf and about 100mm of topsoil revealed the surface of a deposit of light brown clay (102) which it eventually became clear extended throughout the entire trench. It was also found to be very substantial. At the west end and in the centre of the trench it continued down for more than 1 metre, gradually tapering to a thickness of only a few centimetres at the east end where it overlapped the remains of the denuded — and as it turned out partially destroyed — rampart. Once the size of this deposit was realised it was decided to leave the western third of the trench unexcavated for the time being.

Cut into the clay deposit was the construction trench for a brick-lined field-drain. Its overall alignment was west-east but incorporated an S-shaped deviation to take it through the centre of the dip in the bank. The field-drain was left undisturbed as it was obviously still functioning. Removal of the clay revealed that it had been used to fill in a large excavation which had cut down through the west side of the rampart, the uppermost deposits in the adjacent contemporary ditch, and partly into underlying Roman levels (III.16 & 17). The base of the area thus excavated, which continued beyond the limits of the trench to the north, south and west, had been finished so as to create a reasonably level 'floor'. The clay deposit continued down further along the eastern edge of the 'sunken' area where it was found to be filling a small ditch or trench averaging 1.25m in width (103). Its general alignment was roughly parallel with Eaton Road but within the southern half of the length exposed it deviated from its otherwise straight course to form a projection or bulge to the east. Its depth and profile also varied. At the south end it had a

U-shaped profile and became very shallow as it passed into the south section, having a depth at this point of no more than 0.30m. Elsewhere, including the eastwards projection, it had a steeply-sided, V-shaped profile and was considerably deeper, attaining an average depth of 0.70m as measured from the floor of the adjacent excavation.

There were a number of features cut into the floor of the sunken area immediately adjacent to the deviation in the line of the 'ditch'. The most prominent of these were two long, narrow and parallel slots aligned east-west (111) and (112). Spaced 1.55m apart, they had a maximum width of 0.32m, a maximum depth of 0.25m and the southern example (112) was the longer at 2.30m with a narrower and shallower extension 0.50m long at its west end. Both features were filled with the same clay as the rest of the excavated area. A little under 1 metre beyond the southern slot was a rectangular pit measuring 0.75m north-south by 0.40m east-west (113). Its fill was quite distinct, consisting of redeposited black soil derived from the underlying Roman deposits. At the very centre of the pit however there was a square of clay like that of the surrounding area. This extended down to the base of the feature some 0.30m below the floor of the sunken area and seems likely to represent the filling of the void left by the withdrawal of a vertical post. There may have been a corresponding feature a similar distance beyond the northern slot but this theory could not be tested as the brick field-drain had cut through the relevant deposits.

It is clear from the fact that the same material was used to fill in all the above features that they were all contemporary, that they all formed part of the same construction, and that they were all dismantled at the same time. The recovery of late 17th/early 18th century pottery and glassware from the lower fill of the 'ditch' (103) suggests a possible context and function for these features. It is known that during the siege of Chester in the Civil War many and various defensive works were constructed around the city by parliamentary forces. One such, erected towards the end of 1645, was a 'fortified trench' which ran all the way from the parliamentary mounts on the south bank of the Dee to the ford at Eccleston (Dore 1966, 56). Perhaps the linear feature found in Trench V should be identified with this 'fortified trench'. If so, then the sunken area on its west side would be some form of strongpoint or redoubt. The parliamentarian works constructed in this area were designed to prevent Royalist reinforcements approaching from Wales, crossing the Eccleston ford, and outflanking the besiegers and also to stop the Royalist garrison in Chester from making occasional sallies via the Old Dee Bridge and their outpost in Handbridge. This would suggest that the defensive work faced westwards. The absence of anything other than the clay filling in the various features suggests that whatever they once held had been removed when they were no longer needed. The steep profile of the deeper part of the 'ditch' suggests it may have held a palisade of close-set stakes or more substantial timbers. The two slots to the west may have held horizontal beams but what form of superstructure they and the neighbouring vertical post/s supported is unclear. It may have been connected with a possible break in the defensive line suggested by the shallowness of the 'ditch' as it disappeared into the south section of the trench. It is also possible that further defensive features await discovery in the as yet unexcavated western third of Trench V. An alternative interpretation would view the defences as facing east, with the redoubt perhaps housing an artillery piece covering this stretch of the river and taking advantage of the field of fire provided by the natural defile running down to the Dee at this point.

The Post-Roman Fort

Five of the trenches excavated so far have focused on the post-Roman earthwork enclosure. Two of these — Trenches I and II excavated in 2002 — were positioned at locations likely to encounter any continuation of the enclosure's defences along the side facing the river (III.15). Both trenches proved to be completely devoid of any traces of defensive structures, or indeed of any other archaeological features, confirming the impression given both by the overall shape of the earthwork enclosure and by the absence of surface indications that it was completely open on the side facing the Dee.

Another trench excavated in the first season — Trench IV — was located so as to provide a section through the northern arm of the earthwork at a spot unaffected by previous investigations but sufficiently close to them to render comparison of the results valid (for location see III.15). The location selected was 7m north-east of the cut made in 1930 and 21.5m south-west of one of those excavated in the 1950s. At this point the earthwork survives as a low bank with a pronounced dip in advance of it marking the position of the accompanying ditch. It was originally planned to cut a section through the full width of the bank and to fully excavate the ditch in front of it. Excavation of the bank was in fact restricted to its external face because of the need to concentrate efforts on Trench III which had been more productive than anticipated.

Excavation of the ditch had to be curtailed because of continued water ingress following several periods of heavy rainfall. Despite these restrictions the results were very informative. Removal of the general deposit of brown soil (15) underlying the turf immediately exposed the surface of a layer of medium brown coloured clay (29) at the inner (south-east) end of the trench. Subsequent excavation revealed this to be 40mm thick, increasing to 70mm at the rising south-east extremity of the trench. This was the uppermost surviving deposit belonging to the eroded bank. Below it was a somewhat thicker layer of brown soil (30), another thin layer of brown clay and then another deposit of brown soil (34) which, as it overlay the natural clay, may be seen as the ground surface existing at the time the bank was constructed. This in turn sealed a Roman refuse pit (27) with a fill containing much charcoal. The bank thus survived to a maximum height of c. 380mm while the material in it clearly shows, as earlier sections had intimated, that it had been constructed using the upcast produced by digging the adjacent ditch.

Throughout the remainder of the trench (15) was underlain by a deposit of much finer and far more compact sandy, and in places silty, soil containing both nodules and lenses of clay (17). This ran up to the surviving face of the bank. At the north-west end of the trench this was only 100mm thick or less and immediately beneath it lay the surface of the natural clay forming the outer lip of the ditch. Over the centre line of the ditch this deposit attained a maximum depth of 610mm. Removal of (17) towards the south-east end of the trench exposed a steeply sloping cut in the natural clay immediately in advance of the surviving bank material. This flattened off to form a shelf averaging 500mm wide at a depth of approximately 610mm below the surface of the natural clay which continued right across the trench. On this lay a collection of rough-hewn pieces of sandstone, worked wall facing-blocks of presumably Roman origin and several large river-washed cobbles with, here and there, traces of clay bonding (III.18). Loose examples of all three items were found nearby

III. III.15 Royal Commission on Historical Monuments site survey 1985 with location of 2002 and 2003 trenches marked

in the lower part of (17) and could also be observed in the deposit of firm, dark grey silty material below it (40). It is thus quite clear that when constructed the front of the bank had been provided with a crude but nevertheless substantial stone revetment which, following the earthwork's abandonment, had gradually subsided and collapsed into the neighbouring ditch. The natural clay dipped down sharply beyond the remnants of the revetment foundation clearly indicating the position of the inner edge of the ditch. It reappeared c. 3.60m further out and then shelved upwards very gently for a further 4m in two slight steps at which point it attained the observed general horizon of the surface of the natural clay. The remaining fills in the ditch were not excavated. From the evidence of previous sections its full depth can be estimated as c. 3m.

In 2003, the extreme north-west portion of the enclosure's interior was sampled by Trench VI (for location see Ill.15). It was hoped that traces of buildings or structures contemporary with the enclosure would be found. In the event, only one archaeological feature was located and this of Roman date. Excavation was carried down into the natural sand and clay subsoil to a depth of c. 0.35m below ground level. It was evident that ploughing had penetrated to this depth and so any ephemeral remains of structures or occupation features which may have existed could easily have been completely destroyed. That said, the ploughsoil and disturbed subsoil deposits did not contain any materials suggestive of intensive occupation.

The fifth trench of relevance — Trench V appropriately — was located to examine the putative entrance in the centre of the earthwork's west side. The features post-dating the earthwork have already been described above. Cleaning the floor of the Civil War excavation revealed a clear difference between the deposits either side of a line running north-south across the approximate centre of the trench. To the east lay a mix of material representing the truncated/eroded remains of the rampart belonging to the post-Roman earthwork. To the west was a consistent fill of firm, dark grey silt which was evidently the fill of the ditch which accompanied it. Excavation of the ditch fill was not attempted this season because of the more urgent need to progress work elsewhere on the site but it is intended to pursue this as one of the major objectives in 2004. At present though it does

above: III. III.18 Trench IV 2002, view south-east showing partly excavated ditch – under water with base of clay rampart beyond fronted by remains of stone revetment.

III.III.19 Trench III, plan 2002

not appear that the ditch was interrupted by a feature such as a causeway. A modest timber bridge spanning the ditch is a possibility and this, too, will be tested in 2004.

Remains of the rampart survived along the east side of the trench. As found in previous sections its composition varied considerably. At the north end it was formed largely of clay and soil. At the south end by contrast the central portion of the rampart consisted of a very substantial collection of sizeable sandstone blocks (110). Some of these were clearly wall facing-blocks of Roman origin and had presumably been obtained from ruined buildings in the close vicinity. This rubble core was contained by banks of clay front and rear, suggesting that the builders of the rampart possessed some degree of experience in the construction of such works. While it is probable that the front of the rampart was revetted by a substantial stone revetment, like that found in Trench IV last year, this could not be confirmed because the Civil War works had removed the relevant deposits. What appears to have been the remains of such a revetment was found by W.J. Williams in the early 1930s in the trench he excavated at a spot about 20m south of the current Trench V (reproduced here as III.9). He also found a deposit of clay sealing the fill of the accompanying ditch as substantial and extensive as that encountered this year. Here, however, the front of the rampart beneath it had not been disturbed and so it seems more likely to be slumped material from the upper body of the rampart rather than a Civil War infill like that found in Trench V. Of course some, if not most, of the clay used in the latter might originally have come from the collapsed remains of the rampart.

On the evidence recovered so far it would seem that the dip evident in this section of the rampart does not mark the location of an entrance into the earthwork fort. Nothing was found to indicate a revetted break in the rampart of the sort one might expect and, judging from the consistency of the fills to the west, there was no interruption of the ditch. The two slots and accompanying post-setting were fleetingly considered as possible emplacements for some form of gateway structure but the commonality of their fill with that of the Civil War features and their spatial relationship with them render it almost certain that they too should be considered elements of the Civil War works. This is of course an interim interpretation and other discoveries next year might cause this to be revised but the dip in the rampart seems to have been caused by a combination of factors which include the Civil War excavations, the digging of the brick-lined land drain, and erosion by surface water following the line of a natural defile heading down towards the river at this point.

Roman

Trench V lies within the zone bordering Eaton Road where intensive Roman road frontage development existed. By the close of the 2003 season of work, excavation had begun to reveal hints of what appear to be Roman deposits in the deepest parts of the trench. Charcoal seems to be present in abundance, presumably the result either of industrial activity or the destruction of building/s by fire. The large blocks of stone found-re-used in the core of the post-Roman rampart are thought to have been plundered from the ruins of Roman buildings in the area.

As mentioned in passing above, both Trenches IV and VI produced some evidence of Roman activity. In Trench IV this consisted of a single rubbish-pit (27) sealed beneath the post-Roman rampart. In Trench VI the only feature of note was a narrow linear cut in the

clay which crossed the trench on a roughly east-west alignment some 2m from the south end. It averaged 0.25m in width and removal of its medium brown coloured sandy fill (106) showed it to be 0.20m deep. Pottery recovered from this fill was exclusively Roman. The comparatively irregular profile of this feature suggests it was not structural — such as a beam trench — nor were any post settings found within the length examined. Presumably therefore it functioned as a minor drainage gulley serving part of the backland area of the Roman settlement.

The most important discoveries relating to the Roman settlement were made in Trench III. Started in 2002 and extended in 2003, this will be the scene of further investigation in 2004.

Trench III was positioned so as to provide a north-south section across the ancient streambed encountered in the 1946–53 excavations near the north end of the site (for location see III.15). The line of this feature is perpetuated in the present landscape by a generally slight declivity which becomes more marked as it approaches the ancient river-cliff. General erosion and poaching by cattle at this last spot had exposed what was orignally thought to be blocks of sandstone belonging to the northern revetment of Hartley's 'dock'. The trench was laid out to encompass this with the intention of providing a section across the mouth of the ancient watercourse. Originally the trench measured 3 x 15m with a 4m wide and 7m long extension on its east side. The length of the main body of the trench was subsequently increased to 16m and various minor expansions were made to the eastern extension (III.19). Further extensions were made in 2003 as described below.

Removal of the turf and topsoil quickly revealed the presence of a modern field-drain crossing the trench from west to east beneath the centre line of the present dip in the field

III. III.20 Trench III 2002, view west towards Eaton Road along line of ancient stream-bed. Mouth of inlet in foreground; bedrock to right, silt infill to left, modern field-drain running down centre.

surface (III. 20). Its gradient increased markedly within the confines of the trench as it headed toward the river. The drain was left undisturbed so as not to disrupt drainage of the area. Its line roughly coincided with a change in the nature of the adjacent and underlying deposits. To the north there was only a thin covering of soil to be removed before sandstone was revealed. Rather than cut blocks belonging to a built revetment this turned out to be the surface of the actual sandstone bedrock. To the south by contrast there was a deep infill of deposits (III.21) which clearly marked the position of the silted-up mouth of the ancient watercourse found further west by Hartley. As excavation proceeded the waterworn rock face of its north side was gradually revealed. The fills to the south were removed down to a depth of c.6.250 mOD within the main body of the trench. Excavation below this was not pursued partly because of poor weather conditions and partly because it became clear that the width of the channel was far greater than anticipated. There was no sign of the south side of the channel within the trench and subsequent geophysical survey indicated that this lay 3-4m beyond, giving it a total width of 9-10m. The mouth of the stream had thus eroded a significant break in the ancient riverbank and it seemed possible that this was large enough to have formed a small inlet. This was confirmed by a collection of features encountered on its north side.

Little in the way of archaeological deposits survived for the first few metres north of the channel apart from the fill of a number of rock-cut features. Any that had covered the rock here had apparently been eroded by rainwater run-off into the adjacent watercourse. The exception was an area of sandy soil containing a heavy admixture of gravel (24 & 28). As excavation proceeded this was traced back up the slope to the north and was eventually revealed as the surfacing of a ramped trackway c. 2.4m wide leading down to the edge of the inlet (III.22). Its construction had involved excavating a trench into the rock whose

III. III.21 Trench III 2002, view east towards River Dee. Mouth of ancient inlet in foreground; silt infill to right, bedrock to left.

III. III.22 Trench III 2002, view north along line of ancient river-cliff showing, at centre left, track leading down to side of inlet in foreground.

floor rose in a series of steps. To form a slope with an even gradient, a layer of rubble had then been laid down which acted as a bedding for the top dressing of gravel. The track climbed c. 0.90m over a distance of 7m and thus had a gradient of a little less than 1 in 7. No deposits survived on top of the rock to the east. To the west, and cut through by the trench for the trackway, lay a thick layer of clay (36). Initially thought to be natural it eventually became clear that this was an entirely artificial deposit sealing a widespread layer containing charcoal, small sandstone rubble and lumps of burnt clay (35). Its character suggested it was a dump of material derived from industrial activity.

At the edge of the slope down into the ancient stream channel and directly in line with the trackway just mentioned was a large rock-cut pit (Ills.23 & 24). It was roughly circular in plan although its south side, next to the channel, was noticeably straighter. Its maximum dimensions were 1.20m east-west by 1.05m north-south and its depth, as measured from the eroded rock surface, was 1.15m. Its sides sloped inwards to form a flat base 0.50m in diameter and there was a distinct if narrow shelf around its sides at a depth of 0.60m. Its fill (21) was similar to that of other rock-cut features nearby shortly to be described consisting of dark brown soil and a few large pieces of rough-hewn sandstone. The sides of the pit exhibited no signs of any form of lining and there was no discolouration. Another rock-cut pit was found just over 1m to the west (III.24). Only a portion of this lay within the trench but this was sufficient to indicate it approximated very closely to its neighbour in shape, size, depth and fill (22). The two pits were linked by a slight chase cut into the surface of the rock in line with their southern edge. This was 0.20m across at its widest point and no more than 60mm deep. These two pits were provisionally interpreted as emplacements to take the large timber uprights required for simple derricks of the type described by Vitruvius for use in harbours. The slot connecting them may have housed a beam or plank acting as a toe-board designed to

III. III.23 Trench III 2002, north side of inlet showing various rock-cut features including, at centre, top, two adult graves at edge of quay/promontory

III. III.24 Trench III 2002, rock-cut pits north side of inlet

prevent items from rolling down into the water. There were also a number of cut-outs in the sloping rock west of the large pits but there purpose is as yet unclear.

Further exploration of the rock side of the inlet revealed that it turned towards the northeast roughly in the centre of the trench and this was followed for approximately 8m

III. III.25 Trench III 2002, view west of tip of promontory at north side of inlet mouth.

whereupon it turned 90 degrees to run in a north-westerly direction back toward the old riverbank (Ills.19 & 25). This re-entrant was followed for about 3m but by this time the end of the 2002 season was approaching and it was decided to leave further exploration until the following year. The rock along this entire stretch had clearly been cut back to make it straighter and more vertical, presumably to facilitate the movement of boats into and out of the inlet. At a later stage, the rock had been cut back again at the tip of the projection to form a triangular-shaped ledge approximately 1m lower than the surrounding area.

It came as something of a surprise to discover that part of the quayside had been used as the location for three burials later on in the Roman period. Immediately east of the lower end of the trackway was a rock-cut feature (19) rectangular in plan aligned northeast/south-west. From its shape and dimensions the initial impression was that it was a rock-cut grave. Removal of its fill reinforced this impression even though no skeletal material was found (III.26). The excavation in the rock had been executed very competently and the neat tooling was plainly visible. The sides were nearly vertical while both ends had an inward slope, the south-west being the broader end. At its base the excavation measured 1.74m in length and attained a maximum width of 0.45m. The main cut in the rock was 0.55m deep on average but around this, preserved on the north-west and north-east sides, was a ledge averaging 0.20m wide and at least 0.25m high. The Roman ground level in this area had been destroyed by erosion so the full original depth of these features could not be measured. It is possible that as much as 0.50m has been lost in this way. The fill consisted of brown sandy soil, very similar to that which generally sealed the Roman stratigraphy. In this were some complete and some fragmentary roughly worked sandstone blocks together with pieces of sandstone which, from their thin bedding planes, clearly originated from the fractured surface of the surrounding bedrock. Only a few small fragments of Roman pottery were present in the fill.

III. III.26 Trench III 2002, detail of rock-cut graves at edge of promontory

Part of what appeared to be a second grave-like feature (23) was found immediately to the north-east of the first and this was confirmed when the trench was extended (Ills.26 & 27). Its form was identical to the first in every way including the ledge feature which here was preserved on all sides except the south-east. It was noticeably larger than its neighbour with dimensions of 2.01 x 0.52m as measured at the base and all four sides were nearly vertical. The main excavation was 0.52m deep. The fill again consisted of brown sandy soil in which there were a surprising number of rough pieces and worked blocks of sandstone. That this feature was indeed a grave, and by inference its neighbour also, was

left: III. III.27 Trench III 2002, grave (23) showing fragments of sculptured slab as found right: III. III.28 Trench III 2002, grave (23), largest fragment of slab decorated with 'funerary banquet' scene showing young girl resting on couch with protective hand of parent on shoulder

confirmed by the recovery from the fill of a small collection of human bone and, more spectacularly, by fragments of a sculptured slab bearing a funerary relief (Ills. 27 & 28). These are described in detail below. It became clear that both graves, and a third smaller one nearby shortly to be described, had been thoroughly ransacked at some time in the post-Roman period, most probably by the builders of the earthwork fortification. Indeed the close similarity between the fills of all the rock-cut features in this area suggests that the tomb-robbers had also dug out the original fill of the two oval-shaped pits at the edge of the inlet in the mistaken belief that they, too, were graves.

A little over 1m south-west of grave (19) and aligned at right-angles to it was a third, much smaller example whose upper portion had long since disappeared. It measured 0.85 x 0.25 m at the base which lay 0.32m below the present rock surface (III. 19). Its fill (20) was the same as the other rock-cut features and produced some human juvenile teeth. A large, fractured block of stone overlying the north-west end of the grave was found on removal to have a shallow round-headed niche carved on its hidden face. Although no trace of such survived, this had presumably once borne some form of painted memorial to the deceased, obviously a child. There were no traces of any other burials in the immediate vicinity and so these three graves formed an isolated group. If the relative size of the two larger graves has any significance — and the fact that they had to carved laboriously out of solid rock suggests that it has — then grave (23) was probably for a male and (19) for a female.

Along with the evidence provided by the fragmentary tombstone relief we seem to be dealing with a family group of father, mother and a child.

Obviously there was no direct dating evidence for the burials although the style of the carving on the tombstone is similar to the many 3rd century examples from the fortress cemeteries. A very approximate date for the interments would be AD 250. The fact that the burials took place at all suggests that the dock may no longer have been used or at least not to the same level of intensity as earlier.

In 2003, work was resumed at the northern end of Trench III where the neatly guarried rock face made a re-entrant turn away from the river to leave a pointed promontory on the downstream side of the inlet mouth. This suggested the possibility of additional features or facilities carved into the ancient river-cliff and so a northwards extension of Trench III was undertaken. The arduous task of stripping away the turf and densely compacted soil from the face of the river-cliff in the hot, dry conditions which prevailed for much of the summer revealed that the almost vertical cut seen at the end of 2002 continued back for only a very short distance (III.29). Beyond this point the rock face resumed an alignment more or less parallel with the modern course of the river but with a highly irregular character caused by differential quarrying. In some places those doing the quarrying had followed vertical faults in the rock whereas, in others, they had cut into the face in small semi-circular workings. These did not form any recognisable pattern although a functional purpose of some sort is not entirely impossible. The extension was excavated to an average of 0.45m below general ground level at the foot of the cliff. With no definite features discovered further excavation was not considered worthwhile. A small section of the lowest portion of rock exposed at the north end had been finished to a reasonably level surface. This exhibited clear signs of wear and the spot had obviously been a popular one for some form of activity.

The renewed excavation in Trench III also included exploration of the silt deposits in front of that part of the rock promontory containing the two adult graves. This was done with the intention of obtaining more information about the shape and form of the quay and also in the hope of recovering further fragments of sculpture from the neighbouring tomb/s which may have fallen/been thrown over the edge of the promontory. In the event, both ambitions were fulfilled. A 1.30m wide strip parallel with the rock face was excavated. Below the turf was a layer of fine sandy loam. At a depth of 0.60m (at c. 5.32m OD) this gave way to a consistent horizon of firmer but similar material covered in places with a light spread of gravel. This seems likely to be contemporary with the deposit of sandstone rubble discovered the previous year at a similar depth in the main body of the former inlet. It was presumably laid down to counteract the bogginess of the area as part of the general land improvement works carried out in the eighteenth and nineteenth centuries. Below the gravel were further, very substantial deposits of sandy loam (50). At the south-western end of the cut, at a depth of 1.25m (= 4.70m OD), these gave way to a layer averaging 0.20m thick composed of pieces of sandstone. Some of these were roughly worked blocks, or parts thereof, but the majority were simply fragments from the neighbouring promontory of thinly bedded and easily eroded sandstone. Continuing the same horizon and dipping down to the north-east was a layer also containing many pieces of sandstone but with a greater admixture of silty loam (51). Here, most of the sandstone took the form of worked pieces. Careful cleaning in situ

right: III. III.29 Trench III, plan as extended in 2003

III.III.30 Trench III 2003, view looking south-west. III.III.31 Trench III 2003, view north along rock face of quay. Note 'recesses' and lower along rock face of quay platform terminating in vertical edge – bottom centre

of some of these revealed them to be fragments of sculpture (described separately below). Consequently all further pieces of sandstone recovered from this area were removed with earth attached and carefully cleaned off-site. This sculptural material is thought to derive from the superstructure of the nearby tomb/s — cast over the side of the quay when they were ransacked — and the implications of this discovery are discussed below.

Removal of the layer which produced the sculptural fragments revealed a quarried rock surface at the south-west end of the cut. This sloped down to the north-east, gently for the first metre or so and then far more rapidly reaching a level of 3.623m OD at a point immediately in front of the tip of the promomontory (Ills.30 & 31) Where the gradient of the slope increased, the rock was overlain by a deposit of very clean, yellow silt which attained a maximum thickness of 0.45m at the north-east end of the cut (52). Intervening between this and the surface of the rock was a much thinner layer of grey coloured silt containing, at one spot, a collection of cattle leg bones (*pers. comm.* Ian Smith) along with pieces of charcoal and nodules of burnt clay (53). Just before the foot of the east section the rock dropped away vertically with a fill of yellow silt and rock fragments in front of it. Whether this was a manmade cut or a natural fault has yet to be determined. The alignments of this feature and the neighbouring rock face of the quay diverged towards the south with the consequence that whereas this artificial shelving platform was at least 1m wide at the southernmost point observed it was only a few centimetres wide at the foot of the promontory's tip.

The south-eastern side of the rock promontory had been dressed back to form a straight edge with a face sloping down at an angle of 75–80 degrees, presumably to function as a quayside.

III. III.32 Trench III 2003, rock face of quay showing base of northernmost 'recess'

The upper portion of this face, above a level of around 4.15m OD, had the very smoothed appearance of rock long exposed to the elements. The rock below this horizon, ranging in height from about 0.50m at the south-west extremity to more than a metre at the tip of the promontory because of the sloping shelf at the foot of the face, was less eroded with tool marks clearly visible (III.32). At the north-east end, the deepest portion of the face had been left as it was after sections of rock had been split off without any neat dressing back.

The regularity of the lower portion of the quayside rock face was interrupted by two recesses (Ills.30 & 32). These were approximately 1.20m across at their widest point and were spaced a little over 1 metre apart. The backs of the recesses were nearly vertical while the sides sloped in steeply to a reasonably flat floor 0.50-0.60m across. The floor of both recesses lay at c. 4.35m OD while their spacing centre-to-centre was 2.20m. The function of these recesses is not immediately apparent. One possibility is that they had some form of 'buffer' placed in them to stop boats colliding with the rock face of the quay; perhaps leather sacks filled with straw or somesuch material. Then again, they may not be contemporary with the quay as found. In some ways they give the impression of being partial rather than complete features, the major portion having been destroyed when the rock face was cut back and the shelving platform made at the foot of the quay. The steep falling away of the rock at the foot of the east section might represent an earlier quayside (and perhaps the original riverbank) or this may have lain even further out. The recesses may therefore be the remnants of what were once much larger features. In fact, assuming their original shape to have been roughly circular, they would bear more than a passing resemblance to the pair of rock-cut pits found last year just around the corner on the north side of the inlet. Not only are their general form and estimated dimensions very

III. III.33 Plan showing restored hypothetical arrangement of mooring-posts.

similar but also their spacing centre-to-centre is well nigh identical (2.25 vs 2.20m). The only significant difference is the fact that the pair found this year were 0.70m deeper.

Avoiding disturbance to a modern field drain meant that the stretch of rock face between these two pairs of features could not be excavated to any great depth and so the question of whether further examples existed could not be answered conclusively. However there is one substantial and one slight incurving along this stretch of the rock edge which could mark the position of two other pits. Perhaps significantly these occur at locations giving a spacing (2.20–2.30m) very similar to that of the known pits. It was initially suggested that the two rock-cut pits found in 2002 seem best explained as each housing a large upright timber, possibly belonging to a simple lifting device or crane. Now that there seems to have been at least four and possibly as many as six such pits along the original quayside other explanations must be sought. A structural function still seems the most likely. One possibility is that the vertical posts which they may have held were connected with others driven in to the riverbed some distance out from the shoreline to form the framework of a landing-stage. Keying one line of posts into the rock would have given the structure a degree of strength and rigidity otherwise difficult to achieve. The only other explanation the writer can offer at the moment is that the pits held mooring-posts; certainly, given the rocky nature of the shoreline here, there is no other obvious way in which boats — especially heavily laden ones — could have been moored with sufficient security to resist the pull of the tides and currents in this stretch of the river. A simple diagrammatic plan of the postulated arrangement of the quayside is shown here as Illustration 33.

Why the rock was subsequently cut back to form a new quayside is unknown but it may be that the cutting of the pits and the forces exerted by moored boats caused the edge of the quay (visibly already weak from the natural fissures and faults) to crumble. Changes in river level could have been another reason.

Pottery recovered from the make-up for the trackway suggests a date in the Hadrianic period for its construction and, by implication, the various other works which converted the natural inlet into a dock. The burials are thought to be mid-3rd century and their position implies that usage of the dock had ceased or greatly diminished by that time. This would accord with the finds recovered from the infill of the stream-bed by Hartley and Kaine (1954, 24). The rate and chronology of the inlet's silting could not be established as only the uppermost deposits were sampled. However pottery recovered from the lowest level examined suggests it had already largely disappeared by the 13th century. A spread of sandstone rubble across the mouth of the feature indicates one or more attempts during the last two or three centuries to firm up the ground hereabouts while numerous fragments of beer bottles attest the spot's attractiveness for picnickers in the late 19th and early 20th centuries.

Sculpture from the Funerary Monument

The items of sculpture recovered so far can be divided into three categories: a) the fragmentary slab found in 2002; b) two pieces from one or more panels of relief sculpture found in 2003; and, c), also found in 2003 and in association with b), two joining fragments from a fully three dimensional piece of sculpture 'in the round'.

a) Slab decorated with 'funerary banquet' scene (III.34).

The surviving elements of the sculptured slab found in 2002 show that it was carved with what is known as a 'funerary banquet' scene, one of the stock images regularly used on Roman tombs and tombstones and one that occurs frequently in the Chester collection. In this the deceased is shown reclining on a low couch decorated with mouldings in front of which is a small, usually three-legged, table with a round top on which refreshments are laid out. Sometimes a servant is shown in the foreground. The largest fragment of the Heronbridge example, measuring approximately $0.75 \times 0.35m$ and 0.20m in thickness, comes from the upper left-hand quadrant of the relief where can be seen the end of the couch with a high end and part of a baluster leg. There is a mattress on the couch and above this is the head and upper torso of a small female figure clasping some object in her right hand. Resting protectively on her right shoulder is the forearm and hand of a figure to her left the rest of which would have been on the missing piece. This figure was depicted at a larger scale so we presumably have a scene showing one or more probably both parents

and their daughter. The elongated fingers are a notable characteristic of figures on the Chester tombstones. In the upper register a swag or garland fills the gap between the figures and the flat-topped frame. Two other conjoining fragments from the centre of the relief a little lower down show one leg of the three-legged table along with what may be the feet and legs of a servant. Next down is the lower edge of the frame with a flat panel below it which may have carried an inscription giving information about the deceased. The back of the slab was left roughly dressed.

b) Panel/s of relief sculpture (IIIs.35-37)

The smaller of the two fragments, measuring approximately 215 x 195mm overall, has part of a pedimental-shaped field defined by a raised border and containing a rosette or flower with four petals (III.36). In each of the spandrels above is what may be the end of a leaf tendril or just possibly the tail of a sea-creature. The top of the fragment, also marked by a raised border, is a finished edge. Below the pediment is a small area of a deeply recessed field containing the head of a female figure. The second fragment comes from the same or a related panel of relief sculpture and measures 260 x 150mm (III.37). The maximum thickness of both pieces is 55mm. On this second piece is depicted a draped female figure which survives intact apart from the head. An area of plain recessed background survives to the figure's left. A roughly carved projecting border at the base forms the ground on which the figure stands and also includes a finished edge to the bottom of the panel. When first excavated it seemed possible that the two pieces might join to give a complete figure

above: III. III.34 All fragments of 'funerary banquet' scene recovered in 2002. Joining pieces bottom right show curved leg of traditional three-legged table with, to right, legs of servant or additional legs of couch

left: III. III.35 Two fragments from panel/s of relief sculpture recovered in 2003 right: III. III.37 Fragment from lower part of sculptured panel decorated with female figure

but in fact they do not match. However, because one has a finished top edge and the other a finished bottom edge, and as they bear complementary portions of the overall scene, the complete height of the panel/s can be fixed at *c*. 480mm. Despite the difficulties of working at such a small scale with the far from ideal local stone the sculptor has managed to create an impression of the folds and creases in the outer garment. The double hem suggests the woman is wearing an ankle-length undertunic beneath the outer dress. The figure's left arm is bent back towards the body with the hand holding what seems to be a purse or bag. Professor Martin Henig was asked for his opinion of the fragments and his initial comment on the figure is as follows: '(It) looks like a 'Venus Pudica' with a typical bracelet on one arm, the arm whose hand is over her genital area. Venus was often used as the type of perfect female beauty and on tombstones from Italy and elsewhere one finds reliefs of Venus with the facial features of the deceased'.

c) Three-dimensional sculpture (III.38).

As can be seen from Ill.38 the two remaining items of carved stone join together perfectly to form a life-size sculpture of what appears to be the leg of a piece of furniture. Miraculously, considering its vulnerability, the foot is still completely intact and the overall length of the reunited pieces is c. 680mm. The leg is circular in cross-section with a noticeable bulge at the centre of the shaft. Had the foot not been present the piece might have been interpreted as a miniature column from the sides of the tomb, perhaps one of a series dividing the decoration into separate scenes. However, the preserved end is nothing like a column base but is instead a roughly square expansion which then tapers to a narrow and delicate foot on two edges only. It gives the impression that the real piece of furniture on which it was modelled was made of metal (i.e. bronze) rather than wood. Given that it was found amongst the debris from the destroyed tomb/s it is extremely unlikely that this derives from any other

III. III.36 Fragment from top edge of sculptured panel with head of female figure

structure. Until further pieces of sculpture are recovered the identity of the piece of furniture in question will obviously remain unknown but there must surely be a very strong possibility that it was a couch like that depicted in the funerary banquet scene on the slab found in 2002.

The range of sculpture represented in the material already recovered indicates that the rock-cut graves, or rather the two adult examples, were covered by a substantial funerary monument of some sophistication. Its precise form is still a matter for speculation and it is intended that further work should take place at the foot of the quayside with the ambition of locating additional items of sculpture. However it is possible even at this stage to make some suggestions as to the general form of the monument. The slab decorated with the funerary banquet scene is less than 0.20m thick and so cannot have been an upright freestanding tombstone like many of those found at Chester itself. Comparison with other examples of similar reliefs suggest the complete panel would have been 0.80 to 0.90m wide. The surviving outer edge of the largest fragment has a definite convex curvature and this is mirrored in the plan-shape of the ledges which are such a prominent feature of both adult graves. It seems likely therefore that a slab like this was laid horizontally over each grave with its edges resting on the ledges, functioning like the lid of a sarcophagus but in this case the sarcophagus was the bedrock itself rather than a freestanding block. Given the comparative thinness of the stone the grave 'lid' may have consisted of two slabs. As an alternative, blank slabs might have been placed over the graves with the sculptured slab being a part of the above-ground structure. This seems far less likely however not only because of the matching curvature of grave-ledge and slab edge but also because of the

III. III.38 Life-sized model of furniture (couch?) leg carved in sandstone

difficulty in coming up with a tomb superstructure in which it could be reconciled with the other elements.

The thin panels of relief sculpture represented by the items listed under b) above most probably derive from a continuous decorative frieze adorning one or both sides of the monument. As the two adult burials were next to one another and exactly in line, and bearing in mind the physical confines of the location, the basic structure of the monument was presumably a rectangular, box-like shape. The frieze would have been fixed to the side of the tomb a short distance off the ground with, above, a zone — plain or decorated intervening between it and the top of the tomb. The latter would have been flat in order to accommodate the full-scale model of a couch implied by the stone furniture leg. Of course the only reason for providing a life-size sculpture of a funerary couch would be to have set upon it a life-size sculpture of the deceased person. In all probability there would have been two couches, one for the husband and one for the wife, and arranged facing one another. This is a type of memorial which has antecedents as far back as the Etruscans but few are known in Britain. Given the obvious wealth of the deceased couple it is quite possible that they would have been buried in lead coffins. If so, these would have been carted off and melted down by those who ransacked the graves some centuries later. It is pertinent to mention an inhumation burial found in Handbridge in the nineteenth century which consisted of a stone sarcophagus with a lead coffin inside (Watkin 1886, 219).

River Crossing

As part of the work carried out in 2002 an examination was made of an outcrop of rock in the riverbank at the south end of Field 1 which previous commentators had suggested might mark the site of an ancient bridge abutment. Investigation was hampered by the density of shrubs and trees but the rock outcrop was plainly visible and was notable for its almost vertical face in places. When the river was at its lowest level a platform of rock could be seen stretching out into the river. The drop from the riverbank to this platform was around 2m which thus lay at a height of about 4m OD. Careful probing revealed this to continue out from the base of the riverbank for some 3 to 4m at which point it terminated in a vertical drop of unknown depth but certainly exceeding 2.5m. The possibility that there had been been a quay at this point suggested itself especially as one of the more notable declivities running down to the river from the direction of Eaton Road makes straight for this spot. However, it became clear subsequently that vertical fissures occur naturally in the bedrock alongside the river and on present evidence the form of the riverbank at the south end of Field 1 is taken to be due entirely to the river eroding along such 'fault' lines. Similarly, as indicated by the evidence produced by Trench V, the dip in the landscape running down to this section of the riverbank was in existence before the Roman period. If there was an ancient crossing at or near Heronbridge then the most likely location would seem to be somewhere in the vicinity of Heronbridge House.

Discussion

The work undertaken so far has already advanced our knowledge and understanding of the Heronbridge site to a considerable extent as well as producing some totally unexpected and rewarding discoveries. To begin with the post-Roman earthwork enclosure, we now possess a much improved picture of both its form and its siting. Despite the rather ad hoc nature of the stone revetment at the front of its rampart the fact that it was provided with this reinforcement demonstrates beyond any shadow of a doubt that the enclosure was a defended stronghold of no mean importance. Although it is not so obvious now, the site had considerable defensive advantages. The river - which in antiquity was nearly twice as wide as it is now for much of this stretch - provided a barrier on one side as well as a means of supply, reinforcement and, if necessary, escape (Ills.39 & 40). The riverbank was low enough in a number of places to allow boats to be drawn onshore for repair or protection. At the north end there was the inlet with its defunct Roman quay and the bed of the watercourse running back towards Watling Street which together formed a considerable natural obstacle exploited by the fort builders. At the opposite end of the site, the sudden widening of the river channel and floodplain beyond Primrose Hill created a promontory ideal for the siting of the stronghold's southern side (Ill.39). The defences themselves were formidable. The ditch was nearly 3m deep and 5m wide accompanied by a stone-faced rampart which judging from the volume of material available, both as spoil from the ditch excavation and rubble from ruined Roman buildings, was probably about 6 m wide and 4m high. It would have been surmounted by some form of timber breastwork; indeed the 'twigs or boughs' recorded by Williams at the base of the ditch might derive from such a construction (1933b, 111). From

III. III.39 Map showing earthwork in relation to original course of river

III. III.40 Map showing maximum extent of river channel in the pre-Norman period

the top of the rampart it would have been possible, depending on the density of any tree cover, to gain a clear view westwards as far as the Welsh foothills.

Precise dating for the construction of the fort continues to prove elusive but at least the range of possible dates has been reduced. We now know for example that it does not belong to the Civil War because it was itself partly destroyed by works of that period. Indeed, it had clearly been defunct for a very long time before the 'fortified trench' encountered in Trench V removed the eroded front of its rampart. Even more conclusive was the discovery of medieval pottery in the upper fill of its ditch in Trench IV which suggests it is considerably earlier than, say, *c*. AD 1200. All this reinforces the impression gained from field survey that the earthwork is the earliest component of the visible ancient landscape, pre-dating even the medieval ridge-and-furrow

The proven absence of defences, or at least anything substantial, along the side facing the river places the fort typologically firmly within the tradition of defended enclosures erected before the Norman Conquest and especially after c. AD 850. Webster's hypothesis of a bridgehead fort built by the victorious Aethelfrith of Northumbria in AD 613 still cannot be dismissed but the size of the fort and the regularity of its construction does not sit well with the notion of a defence hastily erected in the prelude to, or the aftermath of, battle. Alongside this, however, it must be said that what little evidence we have at present gives the impression that occupation of the fort was fairly brief. A date in the later Anglo-Saxon period seems the more likely and the period when Chester was on the front line of the conflict between English and Danish armies provides the most plausible context. There are a number of events during the period c. AD 890 to c. AD 980 for example which could have given rise to the construction of a fort at Heronbridge. We know from the Anglo-Saxon Chronicle that a Danish army overwintered at Chester in 893/4 and was besieged for a time by a pursuing English force (transl Garmondsway 1972, 88). In the opening years of the 10th Century, the Norse Vikings in Dublin were expelled when it was captured by Irish forces. One group, led by a certain Ingimund, tried to settle on Anglesey but were repulsed (Morris ed 1980, 49). They then sought and were granted permission to settle near Chester by Aethelflaed, wife of the ailing Ealdorman Ethelred of Mercia. After a while, Ingimund persuaded his followers and other Scandinavian settlers in the area to join together in an attempt to seize better estates and to take control of Chester itself. Aethelflaed was forewarned of the attack and reinforced the city which withstood a prolonged siege. The episode is described in an obscure Irish source, the first published translation of which appeared in 1860 under the title Annals of Ireland, The Three Fragments (see Wainwright 1943, 16-18). Ingimund was defeated and is not heard of again; Chester was refortified and was added to the chain of defended strongholds known as burhs begun by Alfred and extended by his successor Edward (Anglo-Saxon Chronicle, transl Garmondsway 1972, 94). Possibly the Heronbridge fort was Ingimund's headquarters. In 923 the inhabitants of Chester, along with neighbouring parts of Wales, revolted against Edward and he had to come north in person with his army to subdue the rebels. He stayed at the royal manor at Aldford but his forces may have encamped further north closer to the city. The latest event in this general period with which Heronbridge might have been associated is the new wave of Viking raids which began in the late 970s. One such attack, in 980, saw Cheshire plundered by sea-raiders.

Circumstantial evidence in support of a 10th century date for the Heronbridge earthwork comes in the form of the recent discovery of a small Viking hoard found within 400m of the site. This includes a soapstone spindlewhorl and a small silver ingot of a type found in several other Viking period hoards discovered in Chester (Robinson 2003, 36).

The inhumation burials found in 1930/31 and interpreted as a battle cemetery had clearly cut into the ruins of Roman buildings and were themselves overlain by the earthwork's rampart. Occupying a crucial place in the site's chronology, obtaining a precise date for these burials is obviously highly desirable. Manchester University Museum was contacted to see if the skeletal material from Heronbridge could be located in their collections with a view to having samples subjected to the range of dating and analytical techniques unavailable in the 1930s. However, it appears either to have been disposed of long ago or destroyed by wartime bombing. Consequently dating of the cemetery will only be achieved by the excavation of further burials. It is clear from Petch's account that some were left undisturbed and so the research programme has been amended to include a return to the site of the 1930s excavations with the ambition of recovering additional skeletal material.

Turning now to Roman Heronbridge, sampling of areas some distance back from Eaton Road has tended to confirm the impression that the settlement consisted essentially of ribbon-development along the Watling Street frontage. Apart from the quay at the north end of the settlement other explored sectors of the riverbank produced no signs of occupation or major activity. However there is still a strong possibility of the odd isolated building or structure on the periphery. These would most probably be religious or funerary in nature and might also include — given the thoroughly Romanised nature of the settlement — a modestly-sized bath-building. For practical reasons this last facility would probably have been located close to the river.

The major Roman discovery of the project so far is of course the quay (III.41). The inhabitants of Heronbridge were fortunate in that a stream had cut down through the riverbank resulting in the formation of an inlet easily adapted to serve as a quay for boats of modest size. As in any other part of the Roman world, inland waterways were an extremely important element of the transport infrastructure. The location of the legionary works-depot at Holt is clear evidence of that fact in our own area and it has long been suspected that river transport played a significant part in the everyday life of those living at Heronbridge. The discovery of the quay is tangible proof that this was the case although the range of goods and materials coming in, and perhaps also going out, by boat is still largely a matter for speculation. Coal is present in Roman deposits at the site and metalworking — including lead — is known to have been one of the industrial activities carried on here. The former could have been brought down the Alyn and then the Dee in small barges from the Gresford area, as could lead from the mining settlement at Ffrith. Possibly some of the bulkier yet still fragile imports coming in to the port at Chester were transferred to smaller vessels for the short voyage upriver to Heronbridge rather than the riskier journey by cart or wagon. Items perhaps such as samian and other fine wares along with amphorae filled with wine and olive oil. Items manufactured here for sale were most probably sold locally, either to those passing through along Watling Street or to the inhabitants of the fortress and canabae at Chester. Dating of the quay's construction is largely dependent at present on material recovered from the make-up of the ramped access

III. III.41 Simple diagrammatic plan showing location of inlet and quay in relation to road frontage buildings

track on its north side and from the industrial waste deposits through which it was cut. This suggests a date in the early/mid 2nd. Century which would tie in with the evidence recovered in earlier excavations for a Hadrianic re-planning of the settlement.

While the discovery of the quay confirms previous suggestions of the importance of river traffic in the life and economy of Heronbridge, it does tend to undermine the theory of a dock closer to Watling Street itself. It makes little sense to go to the trouble and expense of building a complicated system of locks further west along the stream-bed (to overcome the 8m difference in height) at the same time as constructing the riverside quay equipped with a trackway specifically designed to allow carts right down to the water's edge for ease of unloading. It seems to the writer far more likely that the modification of the stream bed beside Watling Street was for the purpose of creating a water reservoir. The excavation of full-depth sections across the line of the stream-bed, let alone the inlet, would be a very considerable and potentially quite expensive undertaking. Although not entirely ruled out as a future possibility it is intended instead to commission a Ground Penetrating Radar survey of the line of this watercourse, the former inlet and the modern floodplain in advance of it. This should give a comprehensive picture of the ancient landform and perhaps identify specific features which could be targeted for future research.

The discovery of the quay has demonstrated that the Dee was much wider along this stretch in the Roman period than it is today. In addition, study of the silt deposits which subsequently accumulated in front of it, along with examination of other parts of the riverbank, have begun to shed light on the nature and speed of the processes which led to the river evolving into its present state over the course of the last two thousand years. For example, initial assessment of the deposits immediately in front of the quay suggest the rate of silt accumulation did not occur at a constant rate since the Roman period but rather that the bulk of it took place during the last thousand years. The lowest 0.30m of silt clearly built up during the Roman period itself. Some 0.20m above this is the layer containing sculpture derived from the funerary monument, most probably destroyed in the 10th Century. The remaining 1.60m of silt above this spans the period from c. AD 950 to the present day. Thus the amount of silt deposited in the last thousand years is three times that of the preceding millennium. It is tempting to attribute this chiefly to the effects of constructing the weir at Chester which cut down the river's speed of flow and the associated scouring effect, encouraging silt to build up along the edges of the river where the currents were slowest. This process would then have been exacerbated by measures to reclaim land from the river's margins.

It must be stressed that study of the Dee's development is an area of research still very much in its infancy but at least we can now see that Heronbridge, because of its closely dated riverside facilities, is one of the few locations which has the potential to provide hard facts about ancient river conditions and levels. It should be said in passing that, despite the presence of the weir, the effect of high tides - even in summer - reaches well above Heronbridge. From observations made so far it would appear that river levels in the Roman period were broadly comparable to those of today, although without the control mechanisms introduced in later centuries it may be that the range of fluctuation was greater. This is a little surprising given that there was no weir at Chester to raise the level artificially upstream. However this may have been compensated for by, inter alia, no man-made control of the flow out of Lake Bala as exists today, no large-scale extraction of water for industrial and domestic consumption, and a greater volume of water in the Dee estuary allowed by the absence of the massive silting which was to build up rapidly in the medieval period. These and many other factors would have had an effect on river levels and far more research is needed. Perhaps the only, or the best, way to fully comprehend the river's development through time would be to gather all the relevant information - archaeological, historical, documentary, climatic, paleoenvironmental etc etc — and contruct a computerised 'virtual River Dee' which could also be used to test the impact of changes of various types upon the river and its environs.

The rock-cut graves were a surprising and poignant discovery; a sobering reminder that, as Sir Mortimer Wheeler used to say, 'archaeology is about people and not things'. We may never know the nature of the tragedy which apparently struck down both parents and their young daughter yet their memorial — if only recovered in part — not only usefully expands the known range of Chester funerary monuments but also tells us something about the wealth of some of its inhabitants. This was clearly a very expensive tomb. The failure to locate any other burials in the vicinity indicates that their monument stood in 'splendid isolation' on that rocky promontory and that the spot had been chosen with some care. Why is another matter. Perhaps the family had some strong connection with the river. The father may have earned his living from shipping on the Dee. Then again the family may have perished together in some boating accident. One might also speculate about the location's potential religious significance, especially with beliefs about the voyage of the souls of the dead to the Isles of the Blessed. The placing of the tomb at this spot implies the quay either fell into disuse in the 3rd Century or that it was no longer used as intensively. Evidence recovered from the upper end of the stream-bed in the 1940s indicated a similar picture of 3rd Century neglect (Hartley & Kaine 1954, 20).

The family most probably resided at Heronbridge although it is not impossible, given the period in question, that they lived in the *canabae legionis* beside the fortress. At the beginning of the third century, the complex administrative classification of settlement types was greatly simplified. In the case of legionary fortresses any constitutional difference between the *canabae* and *vicus* settlements was abolished with the result that at each site they became a single administrative unit. At some sites, the outlying vicus had developed into a larger community than the *canabae* — some indeed achieved municipal status — and henceforth the fortress suburbs were absorbed administratively by the neighbouring settlement. At others, the *canabae* had become larger and more prosperous than the vicus so that the latter now became simply a ward of the former. Chester undoubtedly fell into this second category. In many cases one or both settlements had expanded to the point where they had almost coalesced, kept apart only where earlier cemeteries continued in use. We have already seen that there are hints of a decline in the fortunes of Heronbridge in the 3rd Century and it may be that, now it came under Deva's jurisdiction, the extensive cemetery lining both sides of Eaton Road to the north began to spread across its outskirts. Should we be so fortunate in future investigations as to recover the inscription which once adorned the funerary monument it may perhaps include some biographical information of help in this matter.

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