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Roman circus latest

plus....

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contents

Circus revealed

It's been a year since the first report of the newly-discovered Roman circus appeared in the pages of The *Colchester Archaeologist.* Although there have been no more large area excavations since then, a series of small trenches has since been dug in various key places which has revealed the extent and plan of the building and dispelled any lingering doubts that it was indeed a circus.

An early claim in the local newspapers was that we had found the largest circus outside Italy. We never made this claim and never thought at any point in our investigations that this might have been the case. However interestingly enough, it is now clear that the circus at Colchester was around 448 m long which means that, although not the longest outside Italy, it is still nevertheless one of the longest known.

One of the main developments in our exploration of the building relates to its orientation. This has been a story - literally - of twists and turns which was all about trying to determine which way round the building had been. A year ago we had managed to establish that we were dealing with a building which was about 74 m wide and at least 350 m long, but we had not identified any of the distinctive features such as a semicircular end, a row of starting gates or a central barrier which would prove the building to have been a circus. Since nearly all circuses were between 350 and 450 m in length, it was clear that if the building had indeed been a circus then we should find the ends of it if we could only trace it just a little bit further in each direction. Although there is no consistency in the orientation of circuses generally, those that were east-west or approximately so nearly always had their starting gates at their west ends. And this is what we supposed would be the case at Colchester when the circus was discovered. In other words, we expected the east end of the circus to have been semicircular in shape and the west end to be squared off (or at least approximately so) so as to form the row of starting gates.

West end

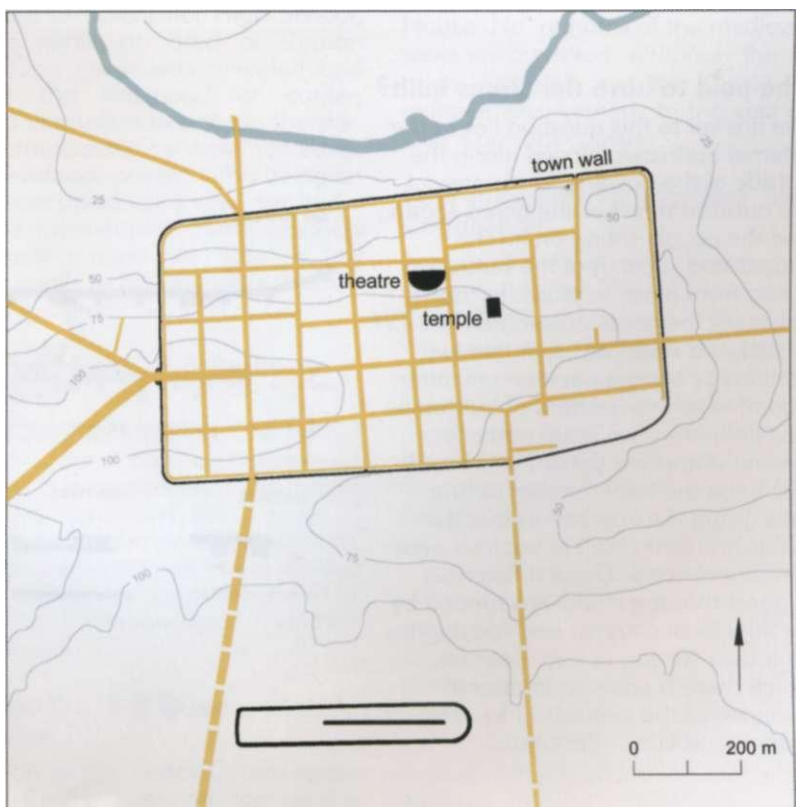
We then set about trying to find the west end of the circus by following the foundations of the south wall in the expectation that it would suddenly stop and turn sharply northwards into the starting gates. The technique was not a particularly subtle one - we simply dug a narrow trench westwards along the line of the outer wall foundation of the south side of the circus hoping that it would suddenly stop. To our delight and relief, we found that the foundation very soon began to deviate from its straight course showing that an end was indeed near. But the deviation was in the shape of a gentle curve not the expected sharp bend. This suggested that the west end was in the shape of a semicircle and the starting gates must therefore have been at the east end - the reverse of what we had expected. However this apparent change of orientation was not seen as any problem since what was important was that we had found one of its ends and the identification of the building as a circus was more certain.

Time Team turned up about this point and shortly afterwards we had our public open day. The investigations which had taken place up until this time had been in places which had in effect been determined by the developer and the needs of the housing development. What we needed to do now was to dig a number of small trenches in key locations which would allow the plan of the circus to be recovered. Fortunately the Time Team were able to fund some trenches (six of them) and others were subsequently sponsored by the Friends of the Colchester Archaeological Trust and the new corporate members, especially the architects Plater Claiborne.

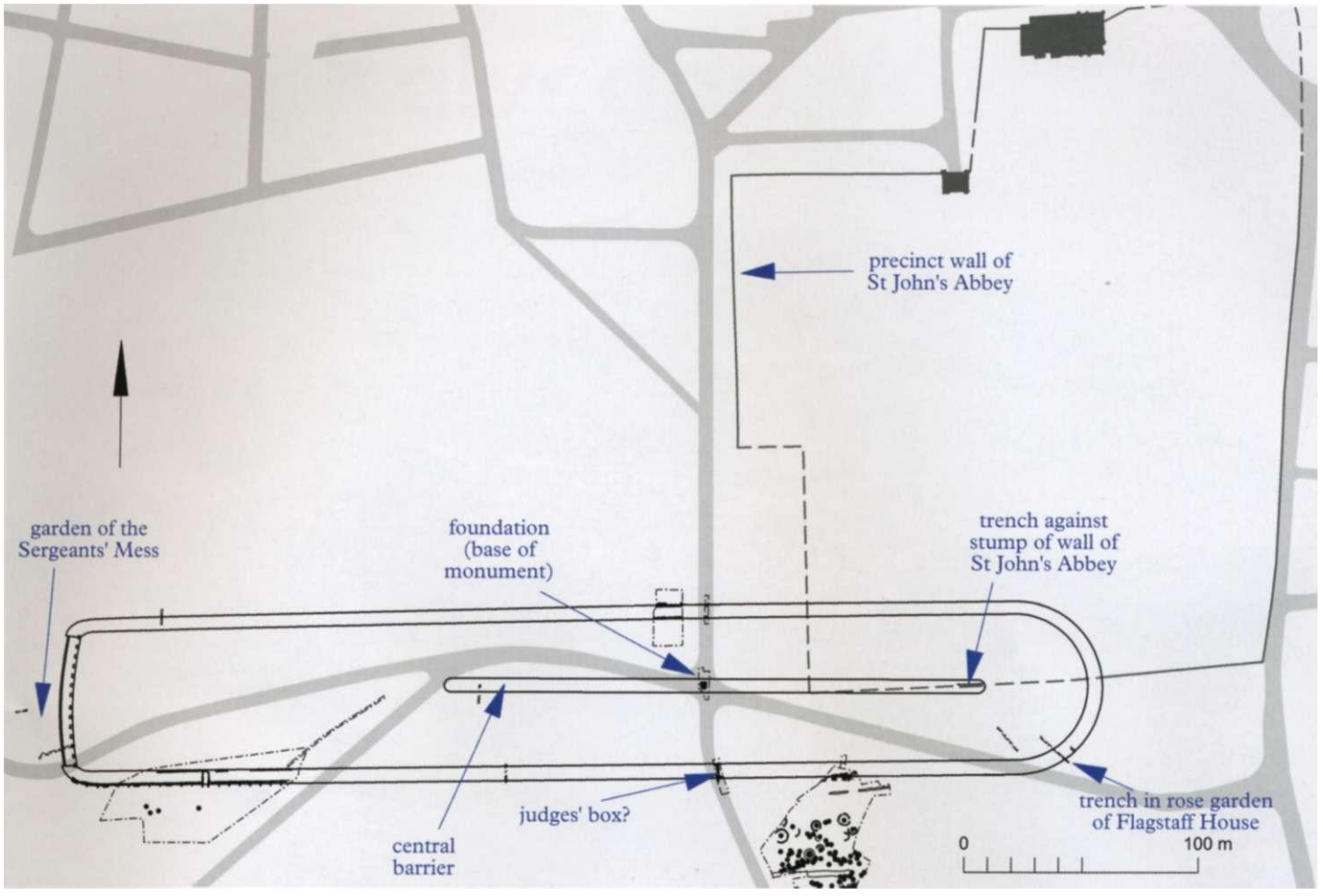
Left: reconstruction of the Colchester circus viewed from the south-east by Peter Froste.

Above: reconstruction of Roman Colchester in c AD 200 viewed from the south-west by Peter Froste.

Right: plan af the Roman Colchester and its circus showing contours.



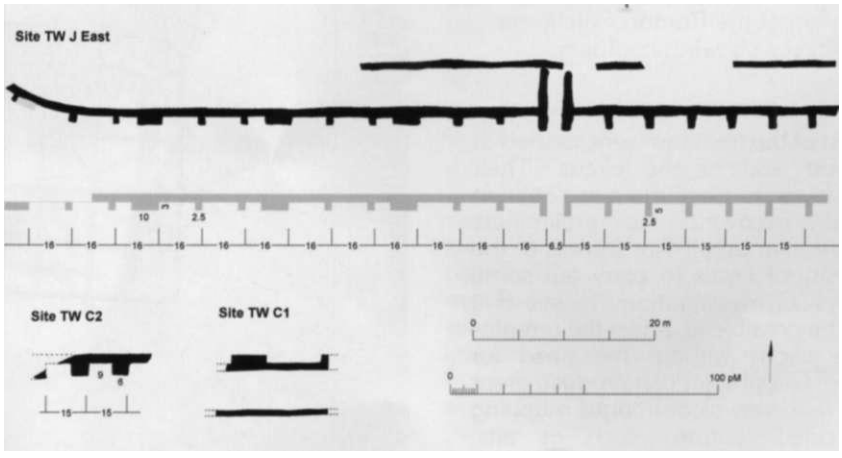
The first of the trenches were located at the west end of the circus. Their purpose was to trace the curve seen in the earlier excavation. As a preliminary to all this, we asked Tim Dennis of the University of Essex to carry out some geophysical investigations to see if it would be possible to detect the remains of the circus without the need for digging. Geophysics can produce great results with very clear images mapping out buried features such as pits, ditches, and foundations, but ground conditions vary and results can be unpredictable. In one place, geophysics revealed the foundations of the south stand very clearly, but it was in a place where they had already been located through trenching. Unfortun-



Plan of the circus in relation to the precinct wall of St John's Abbey.

Who paid to have the circus built?

The answer to this question lies in the external buttresses placed along the outside of the building to counteract the outward thrust of the tiered seating and the people sitting on it. The shapes and spacing of the buttresses varied from place to place. In the largest of the areas excavated (Site TW J East), the stand was split into two sections by a cross passage on either side of which the pattern of buttresses was different. Two more patterns evident elsewhere (Sites TW CI and C2) bring the total number to four thus giving the impression that the circus had been built in sections on a piecemeal basis. These differences suggest that the stand was funded by wealthy local citizens, each paying for their own section in a manner for which there is some inscriptional evidence at the circuses in Lyon in France and Luz in Portugal.



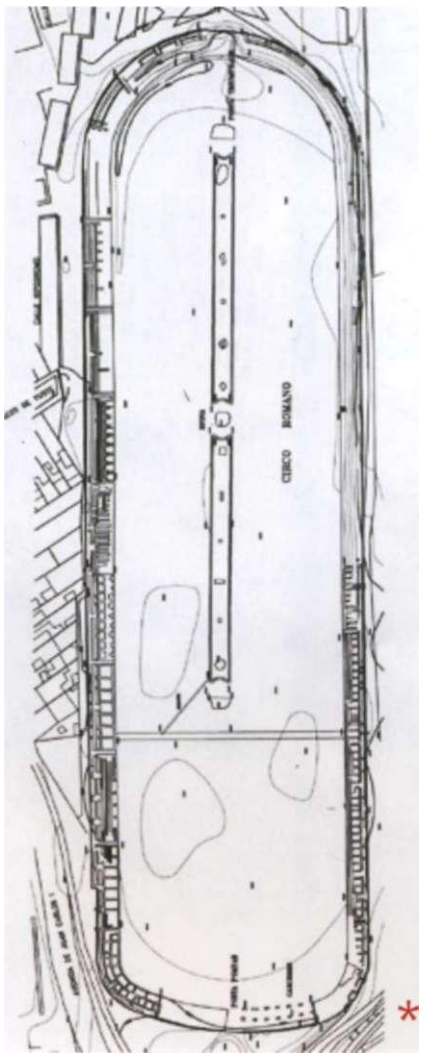
ately, the west end proved to be much harder with results that were hard to interpret with much confidence.

The first trench at the west end was sited in the garden of the Sergeants' Mess so as to test the idea that the west end of the circus was in the shape of a semicircle. But no foundations were found. Were they missing because they had not survived or was the end not semicircular-shaped at all? Another trench was placed to follow the gentle curve of the south wall as far west as possible. Although it showed the curve to continue, there was a hint that the curve was becoming too steep for a simple semicircle. Maybe our trench in the garden of the Sergeants' Mess had not been long enough and we had missed it? We went back to the garden to dig a second trench and find out. This time - success! Two small patches of greensand foundations in the trench showed that we had finally found the west end, but it was further east than we had expected and not in the shape of semicircle at all but a straight north-south line with ends which curved inwards where they joined the north and south sides of the circus. The plan appeared to show that the starting gates must have been at the west end of the circus after all - just as we had thought when the circus was first discovered. Curves at either end of the starting gates is not a normal feature of circuses but, as it happens, it is not unknown because the well-preserved circus at Mcrida in Spain is arranged in just this way.

East end

Attention switched to the other end of the circus where the semicircular end was now expected. We needed to find the end so that we could confirm its shape and work out the overall length of the circus. The Army again readily gave permission to dig more trenches on their land, this time in their headquarters at Flagstaff House. The first trench was sited where the results of Tim's geo-physical survey seemed to hint at a curved feature which might correspond the east end of the circus. As sometimes proves to the case, this turned out to be illusory. A second trench was sited to cross the likely site of the east end based partly on a curious change in the alignment of the precinct wall of St John's Abbey and partly by taking into account certain dimensions in some well-explored circuses elsewhere in the Roman world. The trench proved to be well sited and the east end of the circus was fixed in the ground. Another trench was dug a little to the north to confirm the curve, which it did. An unexpected bonus was the discovery of a Roman grave hard up against the east side of the outer foundation of the circus. Its presence suggested that we had reached the end of the circus because no burials have been found inside the building, and its orientation confirmed the curve because the body had been buried on a north-east-south-west alignment (at a tangent to the circus wall).

The site of the circus overlaps the precinct of St John's Abbey. Medieval pottery in the partly removed ('robbed') foundations of the circus raises the possibility that the circus was still standing as a ruin in the 13th or 14th centuries. Since St John's Abbey was founded c 1095, we need to ask if it was still standing when the abbey was founded and if so, what was the nature of the relationship between the two buildings. The alignment of the circus seems to have been very close to that of



Above: parts of greensand foundations in the garden of the Sergeants' Mess'. They appear to be part of the remains of the starting gates at the west end of the circus.

Far left: plan of the circus at Merida in Spain (courtesy of Trinidad Nogales Basarrate, Museo Nacional de Arte Romano).

Left: the curved west end of the south foundation of the Colchester circus. The equivalent curve in the Merida circus is shown on the Merida plan by *

Above: digging in the rose garden in the Army headquarters. The trench was cut across the east end of the circus.

Below: the depression partly obscured by the rose is a trench extending right to left which originally contained the foundation of the outer wall of the curved east end of the circus. The two bones in front of it are the femurs of an adult who was buried hard up against the outside of the wall.

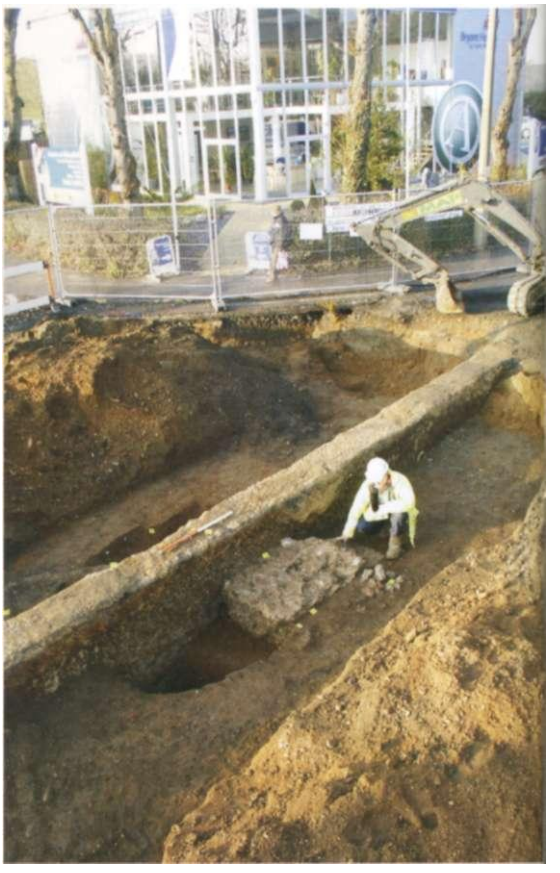
the south wall of the abbey precinct. In particular, the position of the central barrier seems to have been very close to that of the south wall of the abbey precinct. Could part of the barrier have been incorporated in the abbey wall? This is not as strange a possibility as it might seem since the abbey was founded by the Norman baron Eudo Dapifer who built Colchester Castle in such a way as to deliberately incorporate the foundations of the great Roman temple which had dominated the eastern half of the Roman town. Could he have done something similar here and included part of the circus in the abbey wall of St John's Abbey? To explore this possibility, a small trench was dug at the base of a stump of precinct wall which survives next to Flagstaff House. The result of the investigation was inconclusive. The foundation of the wall proved to be medieval rather than Roman and no sign was found of the central barrier. However, the trench was small and the possibility of reuse of the central barrier still cannot be ruled out. It's a problem which will need to left for the future.

Central barrier

The central barrier remained elusive. An earlier trench partly funded by Time Team failed to locate anything of the barrier at its west end making it appear as if its foundations were too shallow to have survived. However by a stroke of great luck, the developers needed to dig a deep trench for a major new drainage system which was due to cross the circus in various places including almost exactly in the middle of where the central barrier should be. The developers, Taylor Woodrow, kindly funded the excavation of those parts of their trench which were to cut through the stands and central barrier of the circus. The trench across the south stand proved interesting because it revealed the remains of a north-south foundation which, being directly south of the centre of the central barrier and thus pre-sumably opposite the finishing line, may have been part of the judges' box. The central barrier itself turned out to be exactly where expected. Its foundations again seem to have been too shallow to have survived but its position was marked by the base of a substantial foundation of mortared greensand rubble about 3.8 m square. Only about a quarter of the lower part of the base survived, the rest having either been robbed out much earlier for its building materials or destroyed when a service trench was cut through it in the relatively recent past.

The foundation clearly supported an important monument near the centre of the central barrier. But what could this have been? Most circuses seem to have had an obelisk in the centre of the central barrier. We cannot be sure that every circus had one but images of circuses such as are found on mosaics, glass cups, and sarcophagi always show one, so it seems likely that the circus at Colchester would have been no

The remains of the foundation of a major monument near the centre of the central barrier. The Bryant Homes marketing suite is visible in the background.



different. Obelisks ranged from 15 to 30 m or so in height making it hard to imagine even a small obelisk standing on what appears to have been a relatively shallow foundation. The foundation we found in the central barrier at Colchester seems to have been close to the centre of the barrier but not at the exact centre, being as far as we can judge about 4 m to the west of it. This part of the barrier may have resembled the well-preserved one of the circus at Leptis Magna in Libya which had three monuments placed close to each other. The central one is thought to have been a granite column and the other two the bases of plinths for sculptures. Perhaps the foundation at Colchester supported a monument showing Cybele and her lions who was frequently associated with circuses. Cybele was a nature goddess responsible for the wild things of the earth, but as guardian of cities and nations, she was also entrusted with the general welfare of the people. She was usually shown riding in a chariot drawn by lions or seated on a throne with a lion to either side. Of course we are unlikely ever to know what the foundation supported, but the important point is that it turned up in the right place and provides more detail about the layout of the circus.

Result...

In summary then, we have come a long way over the last year in terms of understanding the circus, but there is still a way to go. We now know which way round the building faced and we have managed to work out its overall dimensions and plan. We have found it to be one of the longest provincial circuses in the Roman world, but it was relatively narrow with a capacity of up to around 15,000. We believe it was probably built section by section in the 2nd century with stone imported from Kent and paid for by wealthy local inhabitants. The starting gates were at the west end but their plan is yet to be recovered. The central barrier is poorly preserved. All that survives of it is likely to be the deepest foundations of the monuments (and perhaps lap counters) which stood in it. The circus may have survived as a huge impressive ruin until at least AD 1100 when conceivably standing parts of it were incorporated into the precinct wall of the medievel abbey of St John's. The investigations are not yet finished and there should be more opportunities over the next few years for further discoveries and the recovery of more detail which will increase our understanding of this impressive and important monument of the Roman town.

Philip Crummy

Cleopatra's Needle in London - a 3,500 year old Egyptian obelisk.

We are grateful to Taylor Woodrow and Colchester Garrison and Major Casey for their permision and support for the excavations at the circus and to Robert Masefield of RPS who has managed most of the investigations on their befalf. We also much appreciate the financial support of the Friends of the Trust and its corporate members.

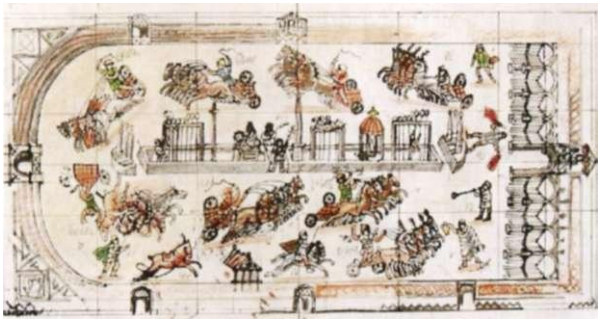
Future developments

Nothing can be seen on site of the circus since all the remains which were exposed during the excavations have been reburied for safe-keeping. However, Colchester Borough Council and Taylor Woodrow are working on a plan for an on-site interpretation building and a permanent display of parts of the circus. Meanwhile you can visit a small exhibiton in the Bryant Homes marketing suite on the corner of Flagstaff Road and Circular Road North. The exhibition was commissioned by Taylor Woodrow and put together by the Archaeological Trust.

Colchester's own Roman *quadriga* is expected to make its first public appearance this summer following the Trust's acquisition of its own racing chariot. The design of the vehicle is based on a model of a two-horse chariot found in the River Tiber in Italy and now in the British Museum. A team of four horses is being trained to pull the chariot. Robert Hurford (pictured with the chariot) built the vehicle and the Herring family generously funded it.

Colchester's circus mosaic

With the excitement of the discovery of the circus now receding, thoughts turn to how best preserve and display the surviving remains. To help bring the circus to life, a stunning Roman-style mosaic pavement is literally being pieced together which it is hoped will be mounted vertically somewhere on the circus site. The design of the new work derives from Roman pavements found mostly abroad showing a chariot race in progress in a circus. Making the mosaic is a big job though - Peter Herring describes the mammoth task in hand....



In April 2005, I wandered into CAT for a meeting with Philip Crummy. I had just retired from my job in the City and was looking for a voluntary role to offer me a new challenge. I chose CAT because I had always been interested in local history and I felt that Colchester needed to improve the way it presented its Roman heritage. I was hardly prepared for what was to come.

Philip outlined an embryonic idea, which he was working on with artist Peter Froste. The concept was to use the medium of mosaic to illustrate the Abbeyfields Roman Chariot Racing circus. Peter had started work on creating a Roman style mosaic using paper tesserae (torn paper from magazines) and from this he developed the final design for what was to become the master artwork. When Philip told me that he wanted a large mosaic suitable for displaying in a visitor centre or on a wall, I imagined something the size of a large poster and, although I had never made a mosaic in my life, I was completely hooked on the idea to volunteer as the project manager.

My first task was to research various materials and production methods. This included visiting Ulrich Nehmzow who had built a replica Colchester mosaic for his kitchen floor. Pupils from his daughter's school helped with the laying of the tesserae. I was so impressed with the final result that I allowed Philip to talk me into building the Abbeyfields mosaic with local schoolchildren. If I was to take this project on, then I thought I should have a go at building a mosaic of my own. With some trepidation, I spent two days building an A4-sized mosaic. When I took it into Philip to appraise, I was not sure what surprised me the most. He seemed to think the mosaic was 'good', and then when I asked him what size he had in mind for the chariot racing mosaic, I couldn't believe what I was hearing when he suggested it should be as big as 20 feet by 10 feet. Where to begin.....?!

Given my project management background, the first obvious task was to draw up a project plan and then of course a budget. This was all straightforward enough, but then came the tricky task of obtaining the money and of course a large number of schoolchildren to build the mosaic. In June, we held a meeting with representatives from Taylor Woodrow (the Abbeyfields Developers) and Colchester Borough

Left. The lower half of the mosaic in late December 2005 inside the specially-made workshop.
Above. Peter Froste's design.
Above right. Pupils of Philip Morant School & College at work.

Council to obtain their approval to the mosaic and to commence the discussion on where it could be housed. We are hopeful that it will be incorporated in the potential Visitor Attraction Area.

Realising that the mosaic would take some time to construct, rather than wait until this planning process had run its course, we decided to press ahead with the project. I therefore approached Mrs Sue Cowans, Headteacher at The Philip Morant School & College to seek the school's involvement in the project and in particular to ask them to provide a site for the workshop I would need for building the mosaic. The response from the school was extremely positive and the Heads of Art & Design (Mr Kevin Flower) and History (Mr Bill Lawrance) were quick to see the opportunity for their students to gain a better understanding of Roman art & history. Everything looked set - all we needed now was the money!

During the summer I was successful in obtaining a grant of £14,850 from the Local Heritage Initiative - a partnership between the Heritage Lottery Fund, the Nationwide Building Society and the Countryside Agency. The grant was to be administered by CAT. I was therefore delighted to be able to launch the project on 16 September, where Peter Froste formally handed the artwork over to local schoolchildren (who had been entertained in the morning by Duncan Drye and his chariot and horses). In October, the workshop arrived (in flat pack style) from Canada. With the support of DAG Construction Ltd, who donated the workshop foundation, I pulled a team of volunteers together to erect the 33 foot by 10 foot workshop over a period of 5 days. Never believe flat pack instructions! The workshop fit-out proceeded very smoothly, with the support of Glenn Jones, a local carpet fitter, and the staff at Philip Morant School who fitted insulation and organised an electricity supply. On 1

November we were in a position to lay the first tesserae (tiles) on the lower half of the mosaic. There are around 200,000 tesserae in the mosaic and I expect us to complete the build phase in July.

Over 300 Philip Morant School and 50 Gosbecks Primary School students have made fantastic progress, laying to date around 60,000 tesserae. As part of the project the children are told about the Abbeyfields Circus discovery and its importance to Colchester. They are also taught the basics of mosaic making with the aid of a DVD made specially for the project by Anne Schwegmann-Fielding, a Colchester-based mosaic artist, and the Media Studies team at the Philip Morant School. Around 100 GCSE history students have also received a talk from Howard Brooks (of CAT) on Roman Medicine - based on the Stanway Doctor's medical kit. In addition to the chariot racing mosaic project, Year 10 pupils are also designing and making over 60 individual mosaic boards. The idea is that these 'companion' mosaics will be unveiled alongside the chariot racing mosaic. The designs are really impressive!

Whilst Philip Morant School is the main participant in the project (with ultimately over 1,000 pupils laying tesserae), the wider community (via two open days) and several primary schools are to be encouraged to play a part in the project and lay some tesserae.

The biggest challenge facing the project is the joining together of the two halves of the mosaic. I expect to be doing this in July and will need a flat floor space of at least 30 foot by 20 foot, with 12 foot wide or high access doors. An empty warehouse, outbuilding or barn would be perfect and I would be delighted to hear from anybody who might be able to provide this facility for a few weeks during the summer. (You can contact me at redherring52@yahoo.co.uk or at CAT.)

Plans are being made to hand the completed mosaic over to the Borough Council on September 8th 2006 in the Charter Hall. The project budget has provision for transporting the mosaic to various display locations across the town, prior to it being housed somewhere at the Abbeyfields site where it should both inform and delight visitors for years to come. Whilst it will still be some time before we complete the project, I can wholeheartedly say that it is much more rewarding than driving a desk in the City! The children are so excited to be both celebrating and creating history and everyone who has seen the mosaic at various stages during its construction has been truly moved by what we are creating.

For more information and further progress reports on the project, please visit the project web-site at www.lhi.org.uk, and then select Project Directory, East of England, Essex, Abbeyfields.

We would like to thank the following people for their help and support with the project:

The Local Heritage Initiative for their financial support
Peter Froste for his terrific design and his continual support
Sue Cowans, Kevin Flower & all the staff & pupils at The Philip Morant School & College
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Anne Schwegmann-Fielding for support, inspiration and advice
DAG Construction of Stanway for providing the workshop foundation
Eddie Moolman, Mervyn Nunn, David Erdbeer and Shirley Herring for the workshop build
All the site staff at Philip Morant School and in particular Stacy for the workshop cladding
David Burrage and the pupils from Gosbecks Primary School
John Jones and the Media Studies team at the Philip Morant School
Glenn Jones for the supply and fitting of the workshop carpet
Sara Green, Bella Pearce and Caroline Rhys-Lewis for helping out in the workshop
Michael Swindells from the Mosaic Shop, Bath for his generous discounts
Duncan Drye and his chariot and horses for entertaining the children at the launch event.

Tony Robinson /

Surrounded by fans in Colchester Castle Park, Time Team presenter and Blackadder star Tony Robinson talks frankly to Philip Crummy about his career, his love of archaeology and history, and tensions between Time Team and the wider archaeological community.

PC *Let's start at the beginning. Where do you come from?*

TR I'm an Essex boy. I was born in Hackney, but my mum and dad were part of that extraordinary diaspora out of the East End into Essex. I was actually brought up in South Woodford, so as a child I looked geographically both ways - back into London and out into Essex.

PC *What did you think you would do when you had grown up?*

TR I think I probably always knew that I would be an actor. My dad was a fantastic boogie pianist. He played in RAF dance bands throughout the war, but afterwards turned down the chance to become a professional and instead opted for semi-detached post-war suburban respectability. As soon as I demonstrated some ability for performance, he really encouraged me, and I think that an awful lot of what I am now is that part of my dad that he never allowed to come to fruition in himself.

PC *What were the performances you mentioned?*

TR I was one of those really precocious little kids. The word 'elocution' is seldom used now, but I used to go to elocution classes, recite poetry and sing in what was called at that time the Wanstead and Woodford Eisteddfod. I never realised what an inappropriate name that was until very much later! So I was always going in for competitions, always being in plays.

PC *What did you do when you left school?*

TR When I was still at school, when I was about thirteen, my mum and dad read an ad in the Daily Express saying that they needed some kids for a West End show up in town. I auditioned and it turned out to be the original version of the stage musical of Oliver, so I had this bizarre period from about thirteen to sixteen where half the time I was at School at Wanstead County High and the rest of the time I was commuting into the West End or making little bits of television or movies.

PC *Did you go to drama school at all?*

TR I stayed on at my grammar school until I was sixteen and I was useless at work. In those days, the schools were streamed, and I stayed in the A-stream wholly because I was good at those intelligence tests. I worked all over the place. People thought it was because I was away doing child-acting, but it wasn't. It was because I never used to do any school work. I hated work. It was anathema to me. But when I was sixteen, they said they wanted to put me in the S-level set to try and get to Oxford or Cambridge, and I panicked because I knew there was no way I could do that because I had never done a day's work in my entire life when I was at school. So I said I wanted to go to drama school which I didn't because, understandably, I already thought I was God's gift to acting.

PC You *must have lost a lot of time from school?*

TR Well yes. But then when I was supposed to be at school, I bunked off anyway because nobody ever knew whether I was supposed to be there or at some bit part in a show in town. I would say 'Bye bye Mum' in the morning and just turn up back at home at about four o'clock in the afternoon, having spent the day in the library or at a bus stop.
I worked just like ordinary jobbing actors do really - you know, rep and maybe one or two tellies" a year for the next five years. But rather bizarrely, there was another side of me. While all of this was been going on, I had also been very politically active. I think I went on my first Aldermaston march when I was thirteen, I was secretary of my youth anti-apartheid, and I joined the United Nations Association. I was very interested in politics. I was interested in history too, but I never thought of it as a subject. My interest just developed and bubbled away in the background without me really noticing about it. For me, archaeology at that time was a very vivid way of bringing history to life, and I think the archaeology that has always attracted me since has been that. I still find staring at a trench in order to find the subtle changes of shade in the soil far less fascinating than a mason's marks on a bit of stone or a dog print on a Roman tile.

Tony Robinson tests the replica Roman racing chariot made for the Time Team programme by Robert Hurford.

PC *But archaeologists don't really find that "fascinating". It's like a dentist looking at the colour of somebody's teeth - he's not interested in it in its own right, it's just something he has got to do.*

TR (Laughs.) You may say that, but I have been surrounded by archaeologists who have waxed lyrical about these arcane methods for an awful long time. And the other thing that I was very interested in was story-telling, again, not really realising that I was, it was just what I did, and when eventually I came to archaeology what fascinated me was how the vast majority of the brilliant archaeologists were great storytellers. They would whip up this fantastic concoction on three or four pieces of evidence and then when a fifth piece of evidence arrived which contradicted the story that they had just created, they were quite happy to drop that story and create yet another one equally fantastic and equally convincing. I have always enjoyed the tension between the methodology of the science and the flights of the mind. It's brilliant - it's the perfect subject for me from that point of view.

PC How *did your acting career take off?*

TR Well I suppose one of the advantages that I had over my contemporaries at Drama School was my height. I was by no means the most talented, but I was the smallest, and what that meant was that there was a whole lot of speciality parts that were available to me when the Chekhov's and Ibsen's were in short supply. So I was always having to dress up in animal costumes. I played the shortest giant in the world or I played Freddie the happy spoon in Stoke-on-Trent. So I survived, and I do think that an enormous amount of success in the entertainment industry is actually about the ability to survive. It is a very tough world. All you have to trade in is yourself and your esteem, and when that is consistently undermined by the fact that you are not getting work or when you do get bad reviews or you get the sack or whatever, it is hard to pick yourself up and carry on, and you have to possess very strong emotional muscles in order to be able to do that. And I have always seemed to be able to do that, whereas other people in my year at drama school who were much more subtle actors than I will ever be, actually found that very difficult and left the industry quite quickly.

PC Of all of your roles, which have you enjoyed the most?

TR I had three glorious years down in Chichester in the seventies, those years that had fantastic summers and during that time I played in Ibsen and Shakespeare. I played Feste in Twelfth Night, I played An Enemy of the People, I played anything from musicals to even the most serious plays on that fantastic Chichester stage and I had a wonderful time there. And that of course, coincided with me getting really interested in archaeology for the first time, because it was the time when Alec Down was digging Chichester having been inspired by Barry Cunliffe's work at Fishbourne Roman palace. My partner at the time and I just went there and started washing pots and doing a bit of trowel scraping.

PC *When was that then?*

TR This was in the late seventies. When I finished, I went back home to Bristol and through my letterbox came the prospectus for the year's extramural courses that Bristol Uni was running, and there was one which was a week on the island of Santorini to look at the geomorphology of the caldera and aspects of the Proto-Minoan civilisation. I thought, "well, it sounds like sun and ouzo to me" and I went on this course for a week. The guy who was running the course was Mick Aston who I got very friendly with very quickly. We are in age only six weeks apart, which surprises many people who think he looks like my great-great-grandfather!

PC *When did you meet Mick - roughly - do you think?*

TR 1980, something like that. I was really attracted by his attitude towards archaeology which was that he had got

something wonderful which he wanted to share with anyone else. He seduced people with his passion literally and metaphorically! The idea that archaeology should be something locked away in the vocabulary and practice of the ivory towers was complete anathema to him. And that was very much where I was coming from. Having not been to university but wanting to know everything about everything, I had suddenly discovered a soul-mate who wanted to teach everybody about everything. We mulled over a number of ideas for programmes about archaeology on the telly and I took them to television companies who reacted with complete indifference because, at that time, who on earth would want to do an archaeology show with an unknown academic and a bloke who was funny? So we forgot about it and we stayed friends, but did not do any more work together and then almost a decade later, Mick was involved with the prototype of Time Team which was in 1992.

PC You *were not there at the very beginning?*

TR Oh yes I was, but I was brought on board just as the presenter. The programme was very successful almost from the word go but the broadsheets really slagged it off because I was presenting it, and they thought that my involvement trivialised archaeology in a way. From my point of view, I had just started doing documentaries via Comic Relief. The Blackadder team were very much part of the original team which created Comic Relief, so I had been out to Africa on three different occasions making more and more complex documentaries and I really enjoyed the documentary form. Given that I had an interest in archaeology, it seemed quite legitimate for me to be the presenter of Time Team, but certainly the broadsheets were going to need some persuading of that. Mick and the other archaeologists were absolutely hammered by various people in the academic archaeological community too. Mick I know was very wounded by this at the time although I thought it was great, because it was stirring up a controversy which meant that people were going to notice the programme. There is nothing that is more likely to lead to flat ratings than a lack of controversy, but it was quite a price to pay as far as Mick was concerned . He was puzzled by the attacks because he had always thought that what people wanted was for archaeology to be taken much more out into the community. He was particularly upset when the attacks were on the standard of our archaeology which was always from day one scrupulously conducted. When Mick and Carenza and Phil went into it, they said from the beginning 'we will only do this if it is driven by proper archaeology. If television archaeology is just digging a hole in order for the camera to be able to shoot it, then we really don't want to know, we are serious archaeologists.' For the first couple of years, the rows between the programme makers and myself on the one hand and the archaeologists on the other about what the priorities should be over the three days were enormous. You've got two sets of professionals: the archaeology professionals and the programme-making professionals, and their needs and desires weren't always the same.

PC How *do you feel that the archaeological profession sees the programme now?*

TR I would say it's split down the middle now with one half who see it as an enormously positive development. Quite clearly it has influenced the number of people who applied to read archaeology at universities, it has made relationships with a lot of local councils much easier because there are more councillors who at least understand something about what the science is and want to talk about it rather than feeling they have to listen to a bunch of egg-heads whose only desire is to slow down development. And they feel it's very useful that Time Team has begun to create a much more authoritative general public. On the other hand, I think many professional archaeologists are still hostile to us. We noticed this in particular when we did what we called 'The Big Dig'. This was a series of live programmes which, over the course of a week, really involved the general public. Now in order to do that, we banged the drum enormously and a lot of people from the archaeological community became extremely upset. They thought that we were going to be encouraging the general public to dig everywhere, to dig randomly, to destroy the country's precious archaeology. Nothing could have been further from the truth and it's puzzling that, given our track record, people within the archaeological community ever thought that we would, but, you know, that's life, you have to accept that that's going to happen.

PC *I didn't realise how much you are involved in the way that Time Team works and what they do. I saw you as a front man. But you're more than that aren't you?*

TR Oh yes, I'm an associate producer of the programme and also I'm pretty active on the political side of archaeology. I'm president of the Young Archaeology Club, and I've also been working quite closely with the Council for British Archaeology for a number of years on various aspects of archaeology. I've been particularly pleased to do that because I've been on the National Executive of the Labour Party and I've been chairing the publication of its policy documents which cover archaeology and other cultural and heritage issues.

So I've been pretty close to government policy on archaeology, and we've made some big steps forward - or steps which feel to us to be big steps forward - both in the extension of the portable antiquities act which we've managed to get the government really very interested in, and also in the idea that there should be a cross departmental audit of how archaeology is treated to ensure that best practice runs throughout all departments.

PC Do *you fancy being by an archaeologist yourself?*

TR I don't often get a chance to excavate, but when we were digging a Roman villa about three years ago, one of the archaeologists said, "I'm pretty sure there is a mosaic just under here". He handed me the trowel and said, "Do you want to have a go?" And I then had this magical half hour of revealing a Roman mosaic floor - the first person to see it in sixteen hundred years!

PC How do *you feel about Time Team? Could you sum up its achievements and the personal satisfaction you get from being involved in the programme?*

TR I think the biggest satisfaction that I take from Time Team is that most people in this country now know what archaeologists do and why they do it. There were probably only about 500 people in Britain who knew what geophys was - now everyone knows vaguely. People understand about the science of archaeology even if it is only on the most rudimentary level. They know that what Time Team does is to take a snap-shot of archaeology, not expose the whole thing, and they have learnt that archaeology is part of our environment, even if only a small part, and when other people, politicians or whatever, talk about archaeology, the public know what they are talking about. We have moved from a state of ignorance to a state of real understanding in a decade - I think that's brilliant. That's down to Mick more than anybody else. And it's down to very good programme makers who you never see.

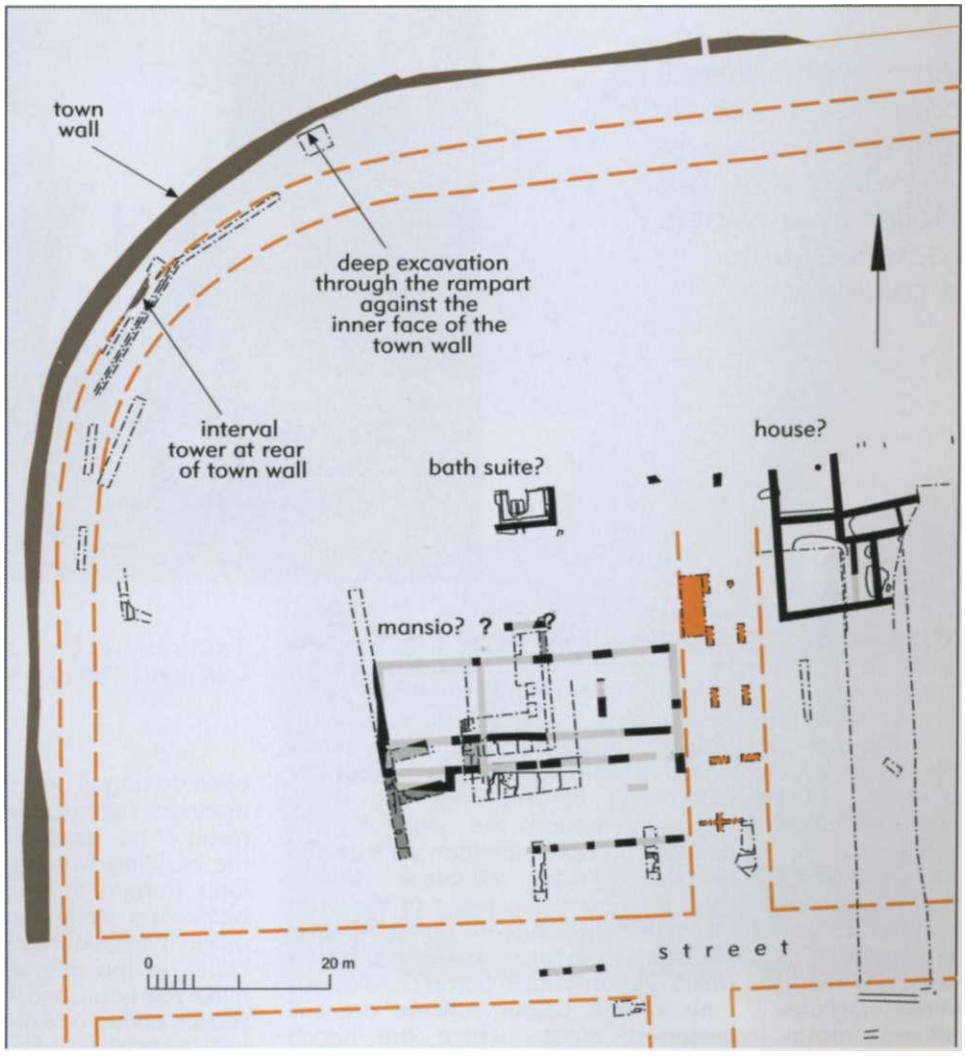
PC *What do you feel you are best known for? Blackadder or Time Team?*

TR Well you probably saw in the Park today that it's about fifty-fifty. As many people shout out, "Oy! You can dig my garden any time you like" as shout out, "Do you have a cunning plan?" But I like it when people say, "It's amazing all the different sorts of stuff you do". That's my favourite accolade.

PC *Wouldn't you prefer it if people said, "Who are you?"*

TR Sometimes. But when they do I'll know that actually I am not a marketable commodity anymore, so maybe that will be the end of my career.

Digging at the Sixth Form College



The Sixth Form College occupies a large and important archaeological site where interesting Roman remains have been discovered over many years. Ambitious plans for major expansion by the college have provided archaeologists with a unique opportunity to explore this important site on an unprecedented scale. The results have been very rewarding with the discoveries of buildings including a *mansio* - the Roman equivalent of an hotel - and an exceptionally well-preserved room which was possibly a bath-house or (less likely) a *nyphaeum* - a shrine to the nymphs, especially those associated with water.

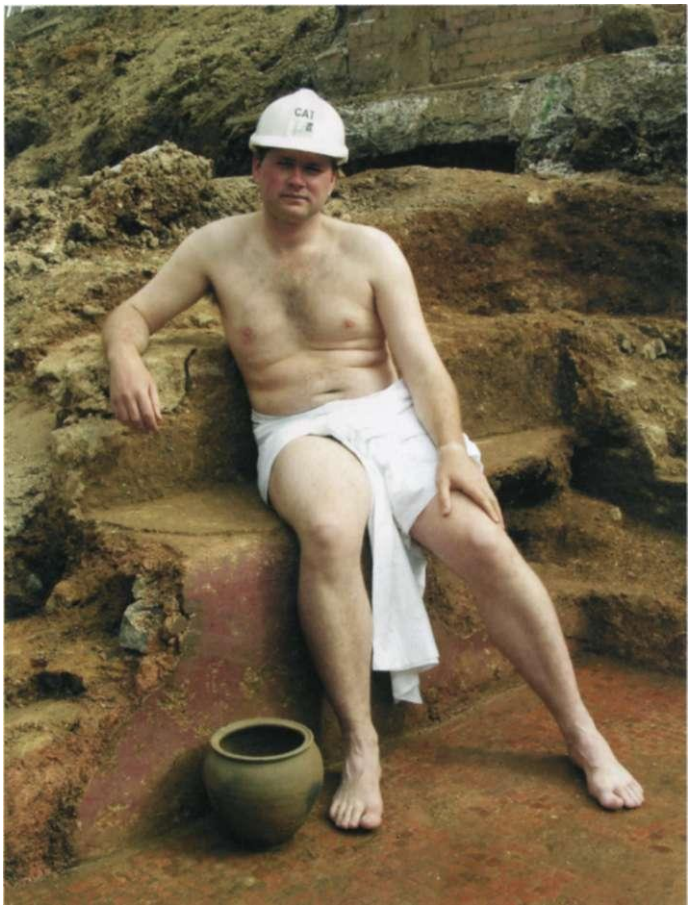
The college has funded and supported the investigations throughout and embraced the results with considerable vigour and enthusiasm. Noticeboards are to be erected in various places in the college describing the archaeological remains in those particular areas and plans are in the making to uncover the ?bath-house again and make it a permanent feature of the newly-expanded college.

In the following pages, we describe some of the discoveries made during our work including the ?bath-house, the ?mansio, and the timbers under the town wall which we suspected and hoped would be there but which in the end proved a bit of a disappointment!

Sixth Form College

Bath-house or shrine?

The discovery of an exceptionally well-preserved Roman room with walls standing to a height of 1.3 m leaves us with a puzzle. Was it a bath-house or a shrine. Ben Holloway considers the problem and describes other discoveries on the college hill....



Trust surveyor Chris Lister takes a well-earned break on the job.

The Sixth Form college occupies an old and important site. As much as ten per cent of the walled Roman town lies within the college grounds. A number of excavations in and around the college site last century hinted at the importance of the area. The construction of the Technical College buildings in 1910 led to the identification of one of Colchester's largest town houses. This proved to have been an ornate building which had been constructed in the 2nd century. The discovery revealed at least 20 rooms some of which had plain red tessellated or decorative multicolored mosaic floors. More recently in the 1980s, Trust archaeologists found evidence for even earlier Roman activity on the site in the form of a well-preserved barrack block from the Roman fortress constructed soon after the Roman invasion of Britain.

More recently, extensive new discoveries were made during the groundworks for the so-called 'mid-site building' being erected in the college grounds. In late 2003 and early 2005, evaluation work carried out by the Trust revealed tessellated and mortar floors and fragments of rubble wall foundations. These remains were parts of a previously unknown Roman building; fragments of mosaic flooring and painted wall plaster show it to have been lavishly decorated.

It was not until the mid-site building works were in full swing in April 2005 that an exciting discovery was made. The west end of a new access road revealed a semi-sunken Roman room measuring 4 x 7 m internally. It had a plain red tessellated floor and painted plastered walls surviving to a height of 1.3 m. A bench within the room extended around the wall. It was rendered in opus *signinum* plaster and painted a dark red/purple colour, contrasting with the decor of the walls themselves, which were painted lighter red. (*Opus signinum* is a pink mortar which is often used in damp conditions.) Parts of this colour scheme are still preserved *in situ* where the bench survives intact. In the south-east corner of the room, traces of a previous colour scheme were revealed. Here a patch of green paint remained under the red pigments that had replaced it, showing that taste for change in interior design is not an entirely modern concept!

Set into the tessellated floor in the centre of the room was a shallow pool, fed by a wooden pipe made of oak bringing water from a spring that is still active even today. This created challenges for the excavation team, who had to hold back the rising water levels and constantly pump out the room to allow excavation to continue. The wet conditions meant that the wood was waterlogged and as a result the pipe and timbers associated with it survived to an extraordinary degree. The tessellated floor around the pool had been damaged and the underlying opus *signinum* left exposed, possibly as the result of the removal of a mosaic when the building was no longer needed in later Roman times. One fragment of black and white mosaic, plus several dozen individual black and white tessera cubes in the demolition material that filled the pool, and two coloured glass tessera cubes, one green and other blue, in the silt clogging up the timber pipe suggest that a basin had been set in the floor directly over the pipe and that this basin had been decorated with a coloured mosaic.

In the southern wall a further interesting feature was identified in the form of a shallow alcove recessed into the bench. This feature was directly in front of the pool cut into the floor. The alcove (set

Above right. The daily chore first thing in the morning - pumping out the sunken room.

Right below. The room viewed from the south showing the pit for the basin and the timber pipe below.

too low in the bench to be easily used as a seat) probably held a small statue or figurine. It was plastered and painted in the same light red colour as the south wall in contrast to the dark purple colour of the bench.

The function of the sunken room is unclear, but there are a number of possibilities indicated by the presence of the free flowing water. One is that it was a *nymphaeum* (a shrine dedicated to the nymph of the spring). However, the most likely explanation is that the room had been part of a bath-house.

The typical Roman bath-house had three rooms of differing temperatures through which the bather would have progressed, starting with a cold room *(frigidarium)* often with a plunge pool, then a warm room *(tepidahum)* and finally a hot room *(caldarium).* In the mid-site example, the absence of a hypocaust system (underfloor heating) in this room shows that it could not have been the hot room or the warm room, and the central pool or basin is clearly not large enough to have been the plunge pool in the cold room. It is therefore possible that the room was the changing room (*apodyterium),* with other rooms of the bath-house reached through a doorway evident in the north wall. The discovery of a gaming token washed into the pipe confirm that other social activities were taking place here and that bathing was an important social activity, not just a matter of hygiene!

As work progressed at the eastern edge of the mid-site area, a gravel road surface and various rubble foundations and mortar floors were discovered. These proved to be the remains of corridors and at least three rooms of a yet another large Roman town house.

The building work across the mid-site area continued to produce evidence of the high-status Roman activity first identified in 2003. More rubble foundations and plain tessellated and *opus signinum* floors from a number of other rooms were recorded. Material recovered from demolition deposits hinted at a high standard of decoration inside the building. Large amounts of broken painted plaster showed walls covered with brightly coloured panels and elaborate designs imitating marble

Close-ups of the wooden pipe below the pit for the basiin. The water flowed out of the gap between two vertical bricks (F20) towards the camera. Other timbers are evident below and to either side of the bricks. Their purpose is uncertain. The y may be parts of a timber well or a sump.

veneers. This style of interior decoration appears in high-status buildings across the Roman world, and would have filtered out to the provinces by the 2nd century when the mid-site structures were built. In addition, quantities of loose black and white tessera point to some of the rooms having been decorated with mosaics.

The size of the building and the nature of the decoration in some of the rooms seen during the investigations imply that the structure was unusual, even special. One possibility is that it was a *mansio.* These were a staging posts for messengers, couriers and officials travelling around the province on government business. The majority of Roman towns would have had such a building to provide for these travellers. The accommodation would have been of two classes: basic barrack-like rooms for messengers, and more comfortable and well-appointed rooms or suites for officials. The rooms would have been highly-decorated and in some cases heated (although there was no evidence of a hypocaust on the mid-site area). It seems likely that the painted plaster and tessera from the demolition are from rooms such as these. Further evidence suggesting the building maybe a *mansio* is the semi-sunken painted room. *Mansiones* usually included a separate bath-house, and the room with the running water may have been part of a bath suite separate to the main complex.

Dating evidence recovered from the buildings suggests that they were constructed in the late 1st or early 2nd century. They appear to have remained in use for some considerable time and to have been adapted and changed throughout the period of use. In the bath-house particularly there is evidence of modification and re-decoration. Plaster from the demolition had been keyed to receive a new plaster face. Pottery from the demolition indicates that the building went out of use in the 4th century and the structures became derelict

The mid-site development has provided us with an insight into the houses and other structures which stood on the steep north-facing slope inside the north-west corner of the walled town during the 2nd and early 3rd centuries. Our investigations there have led to the identification of important high-status buildings, although the overall picture is incomplete and some key issues to do with the function and plan of many of the buildings remain unsolved.

An exceptionally well-preserved wall at the Sixth Form College. Part of one of the large Roman buildings uncovered during building works.

Sixth Form College

It's a fake.... but it's beautiful

Roman marble expert Will Clarke explores the intricacies of high-class wall decoration in the late Roman period and considers the significance of a remarkable group of wall plaster fragments from the Sixth Form College.

Whilst discovery of a Roman bath-house remarkably preserved on the Sixth Form College has grabbed headlines, finds of painted plaster recovered 70 m south-east of this Roman complex are proving equally as sensational in their own quiet way. Arguably they are more so, for they reveal artists who were familiar with tastes exclusive to the rich and powerful back in Rome itself and who brazenly attempted to create an illusion of exquisite marble decor known only from the most grandiose buildings in that ancient city.

Now finds of painted plaster from the remains of Roman buildings in Colchester don't normally invite such accolade. Although, brightly coloured, they're often fairly plain with occasional details such as stripes or spots and splashes denoting crude and vague attempts to imitate marble.

Back in July when working for CAT as a field archaeologist, I passed by our offices when pieces of this plaster happened to have been cleaned and left out to dry. Being a specialist in Roman decorative stone, I was astonished to see an array of exotic Roman stones and marble which had so been so exceptionally well copied in paint. These were not just any types of decorative stone, but the most famous and most expensive types of the Roman world.

Two types of porphyry are represented. One of them is green. It displays crystals occasionally overlapping to create the large crystal rosettes which are a distinctive feature of porphyry from the southern hills of the Peloponnese in Greece. To the Romans, this was known as *Lapis Lacedaemonius* meaning Spartan stone, since its source lay near the ancient city state of Sparta. In an account by Pausianus of a visit to this part of Greece in the 2nd AD, he describes stone from these outcrops '*as very hard but once worked they become so beautiful that they may be used for decorating the sanctuaries of gods'.* The other porphyry is Egyptian. It is deep red in colour with tiny white crystals matching stone from Mons Porphyrites in Egypt's Eastern Desert.

Comparisons between porphyry imitated on plaster and actual examples recovered from Roman sites in the town show that the crystals in both the red and green porphyry had been replicated 2 to 3 times larger than actual size presumably to enhance recognition even when viewed from distance.

Imitations of other stones include a white and yellow limestone *breccia* from North Africa typical of *giallo antico* from quarries of Chemtou (Tunisia), and a variegated white marble with purple/pink veining similar to marble known as *pavonazzetto* from Docimium, in Phrygia (central Turkey).

Quantities of mouldings painted a deep red colour were also recovered which might perhaps have been in imitation of a similarly coloured limestone commonly used for mouldings in interiors of luxurious Roman villas in and around Rome. The stone is known as *rosso antico* and it comes from Cape Tenaros in Greece. Since they derive from a ceiling cornice rather than *socle* (dado) ornament, they show that this design probably covered an entire wall, and that the wall painting likely existed in a private rather than public setting.

In total 85 fragments of plaster with imitations of stone were recovered from this first phase of the watching brief. They provide convincing evidence that Roman artists behind this work were not just merely painting a wall featuring a few exotic stones, but audaciously using paint to reproduce or basically fake an entirely different decorative technique, one totally based on stone and known as *opus sectile.* Why they should want to do this is a question answered by Roman literary sources, which tell us that by the 1st century AD thin sheets of exotic stones providing coverings to floors and walls were considered far more high status than painted decor and even mosaics because of their cost. *Opus sectile* is traditionally found in public buildings in the city of Rome and important public monuments all over the empire and private residencies of the wealthy. Nonetheless, I've studied this type of decor in Roman Italy including the cities of Pompeii, Herculaneum and Rome, and it is apparent that painted plaster from the Sixth Form College in design is very different from the norm. A much closer match to our material is a far rarer type which was more sophisticated and innovative and which seems to have first appeared in Rome during the reigns of Claudius and his successor Nero (AD 41-68). These schemes were based around figured, floral and geometric designs, in part produced by minute pieces of stone in the manner of a painting. Such schemes were described by Seneca as being *"the luxury of his day"* and are known only from exceptionally opulent buildings in Rome such as the emperor Nero's palace on the Palatine. The best preserved examples are from the 4th century when they occurred on an immense scale and covered entire walls of rooms incorporating exquisitely fine detail created by combining glass inlay, porphyry, limestone, and marble. The fragments of painted plaster from the Sixth Form College bear a remarkable similarity to such schemes. For example, they indicate below ceiling ornament consisting of a red cornice displaying quarter rounded moulding is a band acting as an upper border. This represents a frieze featuring a running diamond pattern set against a vibrant blue background imitating either blue glass or Lapis Lazuli. Below this are a series of frames frequently either green or red porphyry varying in size, predominantly rectangular shape but occasionally circular. These surround

panels with contrasting arrangements of porphyry, limestone *breccia* and marble which incorporate finely executed pictorial detail taking the form of scrolls and occasional motifs such as glass vessels.

This reconstruction is based on only a tiny proportion of the finds. The exciting prospect awaiting us in coming months is to take all the pieces of cleaned painted plaster amounting to about 1,000 fragments into one of the large rooms of the college and here lay out the entire collection working with teachers and archaeology students. The hope is that at least part of this remarkable wall scheme can be reconstructed. This will provide us with insights into the skill and ingenuity of Roman artists working in the town and demonstrate the exotic tastes in room decor which their patrons demanded.

Fragments of framed panels of wall plaster in imitation of stone.

A. Greek green porphyry ('Spartan stone') as background to a vase rendered in Giallo Antico. An example of a real piece of Greek green porphyry is shown on the left.

B. Egyptian red porphyry with a lower band of Giallo Antico. An example of a real piece of Egyptian red porphyry is shown on the left.

C. Greek green porphyry with a scroll and band below of Giallo Antico.

Corner of a framed panel

D. Greek green porphyry in a frame as background to a vase rendered in Giallo Antico.

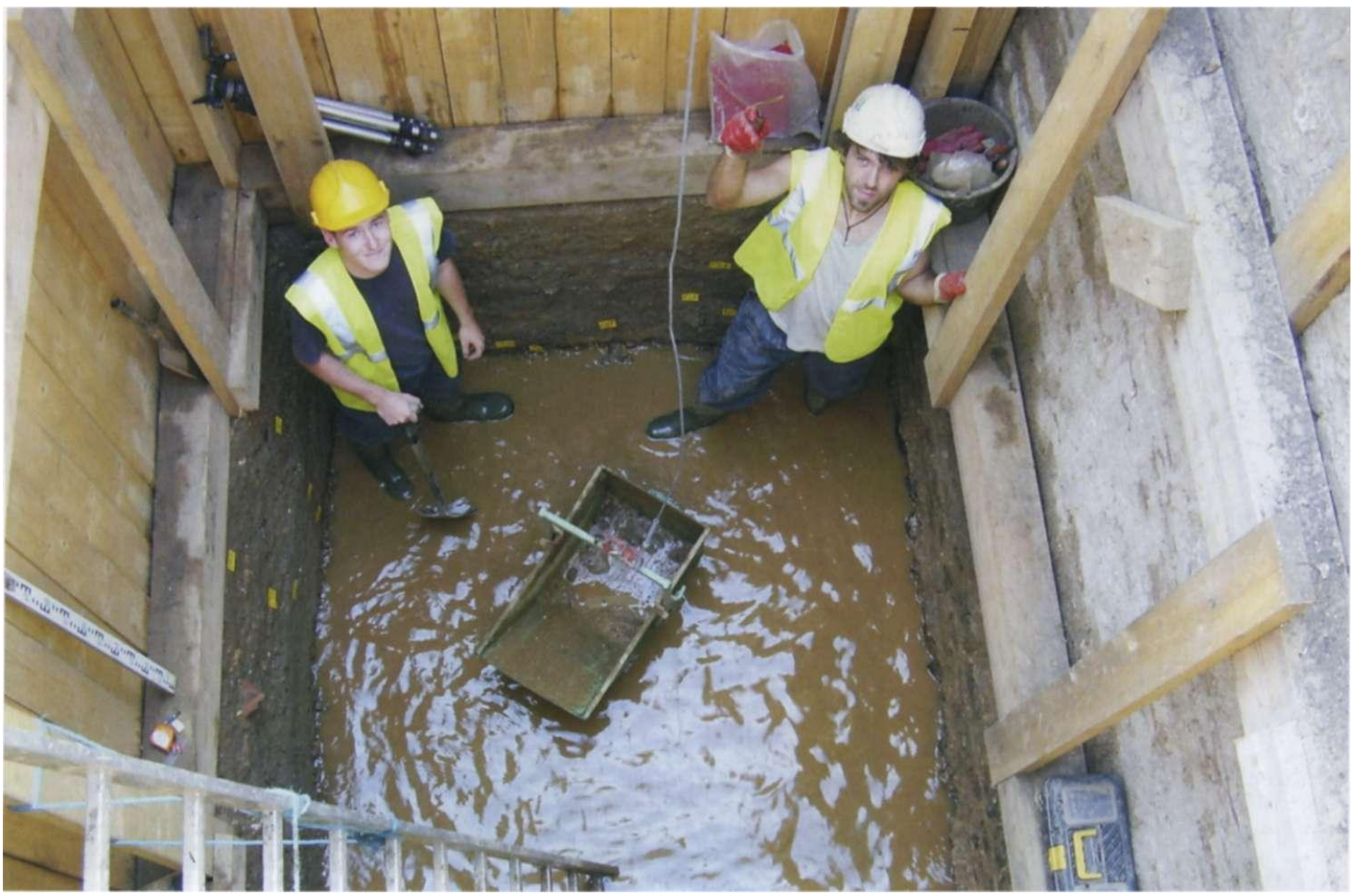
Parts of running friezes.

E and F.

Sixth Form College

Digging under the Roman town wall

by Maruisz I Górniak



It was a warm and dry late August day but we were shivering, and wet to the bone. The summer heat could not reach to us at the bottom of the 7 m vertical shaft. Thanks to high humidity, we were soaked with perspiration and thus having too many clothes on would only be a further nuisance. The electric suction pump could barely manage to keep down the rapidly rising freezing ground water and its occasional 'coughing' noises were more than a bit worrying. Should the machine become blocked by mud or gravel - a constant threat - we would have to vacate the trench immediately. Our tools, finds, cameras, and drawing equipment could be difficult to rescue. A rain of icy droplets was falling from a few small holes in the pump-hose high above. The foundation of the town wall had stood in groundwater and gravel for nearly two thousand years. The large piece of ancient mortar with pieces of quartzite and flint was now steaming - the cold water on its surface was heating up and evaporating. Working 6-7 hours a day in such conditions, one could feel at the end of one's tether. But there was something very rewarding. Looking up at the northern side of the shaft, one could see the face of the ancient wall as it was standing nearly 2,000 years ago. In spite of my archaeological experience, I was astounded by the perfect condition of the wall. It was preserved so well due to the masses of earth from a rampart adjacent to its inner face. Digging up the rampart was like slowly opening a time-capsule with intact and perfectly-preserved contents. The last time the face of the wall was seen like that was in the 2nd century! However, the most exciting thing for us was something much less impressive to look at. A couple of brownish-black and partly rotten wooden piles sticking out of the sand-gravel layer underneath the foundations. These pieces of wood were our ultimate goal. At least we had proved that they existed - after 2 months of hard digging…

The above is a description of excavation works carried out at Colchester Sixth Form College in the summer of 2005. Excavation carried out in advance of construction of new college buildings had already revealed extensive Roman floors and foundations (in 2002 and 2005), as well as a well-preserved Roman bath-house (2004). The new buildings needed sewers, so a pipe-trench was dug to connect to an existing manhole at the bottom of North Hill. However, the trench had to cross a national monument, protected by English Heritage - the Colchester Roman town wall with its inner rampart. So, as agreed between Higgins Ltd, Colchester Archaeological Trust, and English Heritage, a deep trench was to be excavated beside the wall, down to the bottom of its foundation. For us, the archaeologists, it was an excellent opportunity to re-examine the Roman town's defences. Earlier investigations of the wall and the inner rampart had answered most of the questions concerning their dating and building techniques. Archaeological evidence indicates that the wall was erected soon after 62 AD or so and the rampart was added later - in the 2nd century - but further confirmation of these dates would eliminate any shadow of doubt. The 'shaft at the wall' project at the Sixth Form College was thus an excellent opportunity to do this. However, the story here is a wider one. The exposed part of a probable Roman bath found about 1 00 m south of the Roman wall was flooded with ground-water running down the hill (the water preserved Roman wooden pipes beneath the room's floor). This allowed Philip Crummy to form the daring hypothesis that the part of Roman wall, located much lower on the slope of North Hill, must also be flooded with ground water at its lower part, and, if correct, then wooden piles would probably have been inserted into the ground so that the wall's foundation could be safely built. Roman engineers are known to have used such a technique to build defensive walls on unstable ground - for example at the bank of the River Thames in London. However, more importantly than simply showing the use of this building technique, the discovery of wooden piles could perhaps provide an exact date for the wall's construction through tree-ring analysis (dendrochronology) the best scientific dating method in archaeology so far.

And so in July 2005 the excavation began. A shaft almost 7 m deep in the form of an inverted stepped pyramid was excavated stratigraphically - the trench narrowing from 9 square metres at the top to 4 square metres at the bottom, as substantial wooden scaffolding was inserted in stages for our protection. As all the excavated material was extracted by means of an electric

hoist, the deeper the trench the more difficult it became to excavate. The shaft went through topsoil, late Roman dumps on the rampart, 33 earthen layers of the rampart, as well as a Roman road alongside the wall. To our surprise, we found that layers of almost pure clay beneath the rampart, deliberately placed there to seal the groundwater underneath. Moreover, the wall's foundations were also placed in a man-made deposit - this time a layer of sand and gravel. As predicted, under the massive foundations, more than 2 m below groundwater level (and 3.2 m below current street level on the outer side of the wall), the upper parts of vertical timber piles sunk into the natural soil, and covered with sand and gravel, were exposed.

The material for the rampart originated from within the town - including demolition debris and earth. Both the rampart and later layers of dump contained many finds. In total we collected: almost 280 kg of building stone, 303 kg of Roman brick and tile fragments, 64 kg of mortar and painted plaster, 10 kg of bone and oyster shell, and - most importantly for us - more than 12 kg of pot-sherds. These finds are still in the final stages of analysis, but already we can tell that the Roman defences of Colchester were built in at least two stages. Well before AD 100 - most probably soon after the Boudican revolt was crushed - the Roman wall was erected. Its superstructure (the visible wall) is more or less similar all around the town, but its substructure (the base of the wall and its foundations) varies depending on ground conditions. Because of the high groundwater level at the bottom of North Hill, a massive ditch (at least 6-7 m wide) was dug, then a set of rectangular timber piles was sunk into the natural ground and covered with a layer of sand and gravel. Into this layer a mortar with hard quartz and flint stone cobbles and boulders was poured, forming the wall's foundations. Above this was built the base of the wall - consisting of cubed pieces of septaria stone bonded with *opus signinum* mortar (this type of Roman mortar had special water-resistant properties). Several layers of clay adjacent to the wall sealed the sand and gravel and the groundwater. Above this, a road made of gravel and sand was laid down about 2m away from the wall. The main part of the wall was built of septaria stone and bricks bonded with mortar and opus *signinum.* The face of the wall consists of neatly laid alternating courses of stone and brick, set in bands of four and four. Straight horizontal and short vertical lines were incised into the fresh mortar to create the illusion that the stone blocks and bricks were of equal dimension. The wall at this time was clearly a freestanding structure with a road running along its inner side.

Originally, it was approximately 6-7 m high including the battlements (nowadays visible to a maximum height of 4 m above the ground) and 2.4m wide. It seems that during the late 2nd century the layers of the rampart were added, strengthening the wall. During the late Roman period - late 3rd-early 4th century - material from demolished buildings was dumped on top of the rampart. Much later, during the 15th or 16th century, the upper part of the wall's inner facing was robbed out - leaving only the core of the wall. The outer face of the wall had lost its facing blocks and brick long before that - it had been periodically cut back presumably to rob it for building materials. What we can see of the wall nowadays is in fact mainly the core of the wall - being made of various roughly cut pieces of septaria stone bonded with thick mortar, and with courses of brick between the stone rubble. But, originally, the outer face looked the same as our inner facing.

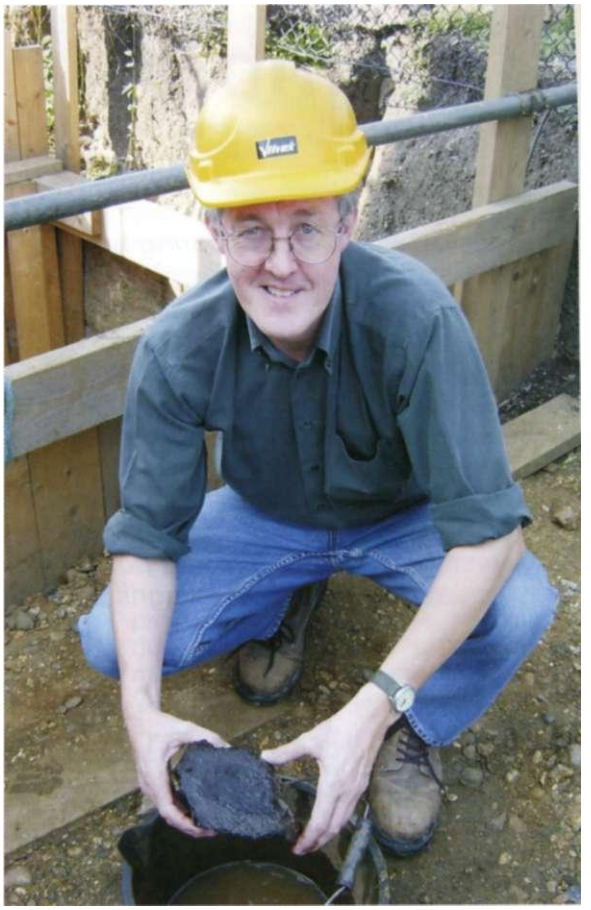
Engineers from the Higgins development company could not hide their amazement when viewing the whole structure of the Roman defences. The techniques used by the Romans were not very different from the ones applied to the construction of large modern buildings. The materials and tools differ but the methods are similar: stripping the unstable ground to stable natural soil; the use of vertical piles; a ballast layer consisting of gravel; foundations made of hard material; and a main superstructure made of lighter materials. The durability of the Roman construction is well proven. In spite of almost two millennia of erosion, sieges, and the stripping of its facing, the wall is still standing firm. But how did the Romans manage to build the wall and stop the foundation trenches filling with water? This probably had to involve digging a whole system of drainage trenches, which would have made the whole project a gigantic enterprise.

However, eventually the excavation in the shaft had to be terminated. The foundations turned out to be much deeper than we thought. In September, English Heritage granted permission for a hole to be drilled through the lower part of the wall, to connect the new sewage-pipe with the manhole outside the wall. Moreover, the pipe-trench leading to the shaft exposed an inner tower of the Roman wall (about 50 m south-west of the shaft), which had to be excavated and recorded to a level of 2 m. In addition, the main building works at the Sixth Form College disturbed further Roman layers, and a small watching-brief rescue excavation was conducted. We were running out of time. In a last effort, we dug a slot under the foundation which allowed us to expose the top of two wooden piles and cut off the largest piece we could obtain for tree-ring analysis. However, sadly, the sawn-out part of the pile appeared to be too damaged by the weight of the wall and no conclusive date was obtained. So, we successfully excavated the inner Roman defences, we managed to prove the existence of the piling under the wall but failed to obtain a dendrochronological date for it. Thus, the oak piles under the wall await future exploration, and perhaps eventually the sought-after scientific date for the construction of the wall will be established.

Sixth Form College

Dating with tree rings

Dendrochronologist Martin Bridge was called in to date the timbers found under the Roman town wall at the Sixth Form College. But disappointment was in store. Martin explains why.



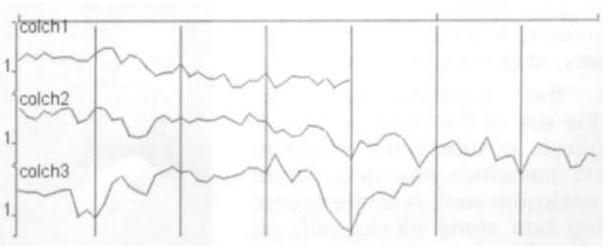
Dendrochronology (tree-ring dating) is now a well established dating technique, capable of dating the annual rings in samples of wood. With oak timbers, for which we have continuous chronologies stretching back beyond the Roman period, it is possible to establish the very year in which the tree was felled, if the outer rings to the bark remain. Each tree reflects its own life history in its ring sequence. However, all the trees of the same species, growing in the same area, will tend to react the same way to the weather conditions as they vary from year to year. This means that there will be some similarity in their growth patterns, and if there are enough rings remaining in a sample, it is theoretically possible to match the pattern of varying ring widths against dated chronologies, established from other sites by overlapping patterns from living trees with progressively older samples of wood. As we go back in time, there are less samples available to us, and our Roman material mostly comes from London and Carlisle, with only a few dated samples from elsewhere in the country.

When the tree is growing, the outer rings (sapwood) are living and the wood is much softer. As a new ring is added each year, the wood further in from the bark dies and is filled with by products of the tree's metabolism which make it more resilient. Quite often the sapwood is lost when the timber is converted for use, or it decays fairly rapidly. One is then left with a sequence of rings that can be precisely dated, but one does not know how many rings may have been lost on the outer edge.

The ideal situation for dating therefore is that the timber is oak, because we have the chronologies available against which to compare the ring width sequences; that there are several contemporaneous samples so that we can find the similarities in their patterns of growth and filter out factors affecting individual trees, and also that we have a number of samples which will hopefully all tell the same story in terms of when they were cut down. Finally at least some traces of the sapwood, preferably out to the bark, should be present.

On my first visit to the excavation several timbers had been revealed, and I could confirm that they were of oak. With the eye of faith, it looked as though there was at least one large timber with a natural looking outside edge, and it looked as if there may be enough rings. The wet wood was very soft and in order to be able to see and measure the rings, it was necessary to take small cross-sections away and freeze them so that a solid surface could be cut to reveal the ring sequences. A couple of weeks later I made a second visit and picked up several further pieces of wood that had been excavated.

Once the rings were clearly visible it was apparent that most of the sequences contained too few rings, and some sequences were affected by root in the middle, and distortion from the weight of the massive wall which had sat on them. Three were measured, but sadly the patterns did not match each other, nor did they match dated material from any period. Not surprisingly, given the wet conditions, no sapwood remained, so even if the ring sequences had been dated, one would have had to have added an estimate for the number of rings of sapwood lost, which would have given a range of about 30 years for the likely felling date, but would at least have confirmed which half-century the trees were felled in.



Left. Sample of timber from the Sixth Form College ready for measuring.
Above. Plots of the ring-width series from the three measured samples of Roman oak found under the wall. The y-axis is the ring-width in mm plotted on a logarithmic scale.

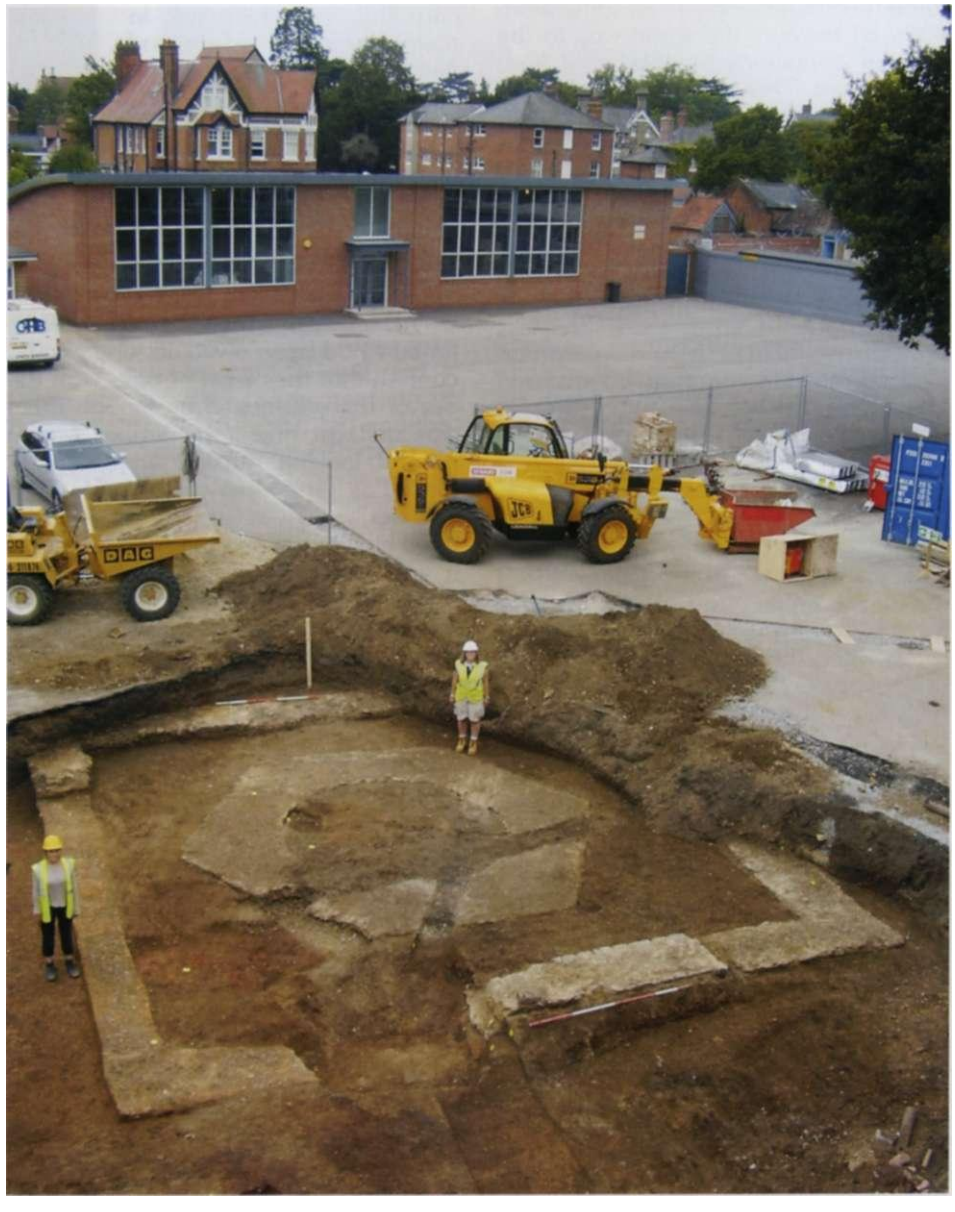
Tomb of the falconer?

A spectacular discovery during building works at the Colchester Royal Grammar School revealed the remains of an extraordinary monument to a wealthy citizen of Roman Colchester. The monument incorporated an impressive tower which, in its day, must have been a landmark on the main entrance in and out of the walled town. But the significance of the discovery does not stop here because the cremated remains buried in the monument included bones of perhaps as many as five or even more sparrowhawks. Falconry, or in this case hawking, was traditionally a noble art - a past-time of the powerful and wealthy - but its pursuit in Roman Britain is not yet proven. Howard Brooks examines the possible significance of the bird bones.

Lexden Road is busy at rush hour nowadays, but it was busy in Roman times too. If it were possible to strip away the modern buildings and travel back almost 2,000 years, one would see a major Roman road from Chelmsford and London heading for a Roman 'spaghetti junction' somewhere under the Grammar School buildings. From this junction, one road headed into town through the Balkerne Gate, and other roads ran off in various directions. It would also be clear that the Roman roads were lined with cemeteries containing spectacular tombs of the wealthiest citizens of Roman Colchester.

In August 2005, building work for a new science block at the Grammar School revealed the well-preserved foundations of an octagonal Roman structure within a rectangular walled enclosure. There were seven associated cremation burials, two within the octagon, four within the walled area, and one outside. We have described the structure as a 'temple-tomb' because it combines the function of a small walled cemetery with a ground-plan which is similar to (but smaller than) the 'square within a square' layout of a typical Romano-Celtic temple. Interestingly, another walled cemetery is recorded a mere 75 metres away, at Gurney Benham House.

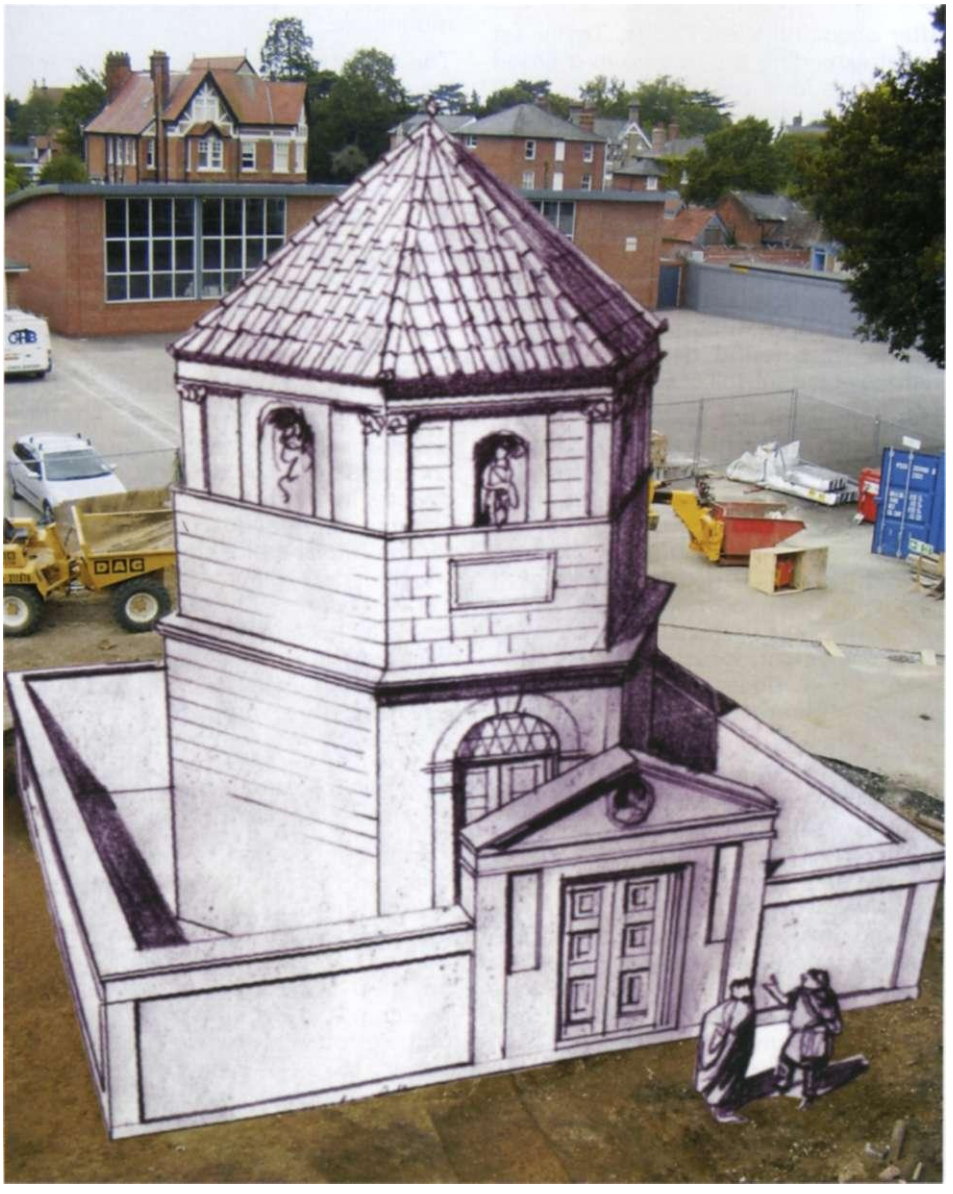
Although the superstructure was missing, the size of the octagon foundation suggests a substantial structure above, and one which was much larger than the enclosure wall. A single course of surviving tufa stone blocks with an external chamfer show that the upper walls were at least partially built of tufa. Tufa is not common in Roman buildings, and the fact that it occurs in the triumphal arch at Balkerne Gate shows that it may have been reserved for



structures which were in some way 'special', such as monumental tombs. Unlike septaria and Kentish greensand which are the commonest stones used for building in Roman Colchester, tufa can be easily worked and was much better suited for ornamental facades. Its use in the Royal Grammar School tomb suggests that the building had been elaborately finished.

The situation of the tomb is significant - it lies on a Roman crossroads, on the south side of the main London Road and on the west side of a road running south to Gosbecks, with its Roman temple and theatre. The builders of the tomb chose a site which was clearly visible from various directions, so that travellers coming into the Roman town would be impressed by the tomb and would be reminded of the person who was buried there along with members of his family and perhaps household.

The temple-tomb is interesting enough in its own right, but a study of the cremated bones by faunal remains experts Francesco Boghi and Julie Curl of the Norfolk Archaeological Unit has uncovered some fascinating detail. First, a significant quantity of the bone placed in the cremation burials is animal rather than human, suggesting that various animals were cremated along with the humans. There are two levels at which this can be interpreted: either the animals are simply the favourite meat of the deceased person (most are sheep or goat) or the bones have a religious or ritual significance. Second, it is of the greatest interest that one of the burials contained the remains of a female sparrowhawk and other juvenile bird bones. Curiously, this was not the central burial inside the octagon (which contains a single piece of cremated human bone), but was located in the south-eastern part of the walled area, in a location which does not appear to be particularly special. Nor did the bird bones include the complete bodies of the birds, but only the upper legs. It is not clear what has happened to the lower legs or indeed the rest of the birds' carcasses, which must have been disposed of elsewhere. Perhaps the upper legs were seen as particularly significant, and for that reason were cut off the carcasses and cremated along with the birds' owner? The inclusion of the sparrowhawk with the human remains could suggest that the buried person was a falconer, buried along with his bird(s). The juvenile bird bones are too poorly preserved to permit certain identification but as far as can be judged, they are consistent with young falcons. Falconers need to use young birds to begin training, so the juvenile bones may represent juvenile birds raised for training. The sparrowhawks themselves may be used for catching a variety of prey, mostly other birds, or they may be used as decoys to drive other birds into traps.



But there are a couple of problems if we are to suppose that the bones indicate the burial place of a falconer. Firstly the dead person appears to have been female and women are not generally associated with falconry. Her gender is indicated by the presence in the burnt remains of part of a bone pyxis, a type of small container for cosmetics. Moreover, it is generally accepted that there is no clear evidence for hawking in Britain before the Anglo-Saxon period. However, there have been many finds of the bones of various birds of prey in this part of Britain. The 1930s Hawkes and Hull's excavations at Sheepen produced the bones of the Common Buzzard, and in the same place Rosalind Niblett excavated a pit in 1970 which contained bones of two white tailed eagles. These large birds may simply have been wild animals, but there are also records of smaller falcons which are more likely to have been used in hunting expeditions. These include other other sparrowhawk bones at Colchester, and more recently at Great Holts Farm (Boreham), at Gresham Street in London, and now at the Grammar School. So, hawks were definitely around in south-east Britain in later Roman Britain, but how did their bones end up in archaeological contexts? They could simply be the remains of wild birds some of whom were included in burials for ritual purposes not clear to us today. The Egyptians sometimes represented the god Osiris as a falcon, and he was also associated with the rebirth of the sun everyday. For that reason, falcon bones may have had some connotations of rebirth appropriate for a burial. The other conclusion would be that the falcons were used for hawking, and that the Grammar School evidence is helping suggest that this sport was practiced in later Roman Britain.

With thanks to the Colchester Royal Grammar for funding the investigation, Julie Curl and Francesco Boghi of the Norfolk Archaeological Unit for their analysis of the cremated bone, and Peter Froste for his drawing of a conjectural reconstruction of the tomb.

John Taylor's 'Roman tomb'

By James Fawn

For some years now, James Fawn has delved extensively into various records and publications in his research into the development of Victorian Lexden. In his explorations he came across a curious description of a 'Roman tomb' which keen archaeologist John Taylor had built on his land so that he could display in it many of the Roman pots he had excavated elsewhere on his property. When James told us all about his discovery, the penny dropped... We had seen that very 'tomb' about fifteen years ago but had been puzzled as to what it was. It certainly looked Roman but the brickwork showed it to be Victorian. James was impressed to be presented with a photograph of John Taylor's pride and joy there and then, and we were delighted that he had cleared up a long-standing mystery. Of course, tantalising questions now arise for future archaeologists. 'Did John Taylor base the design of his tomb on a real Roman one that he found nearby and if so, does it still exist?'

In 1849 John Taylor was an early benefactor of the Colchester Museum donating no fewer than 167 Roman vessels, mostly cremation urns. The present museum display includes many of the grave goods which he found on the small estate attached to his house, the first West Lodge, on the south side of Lexden Road then part of the main road from Norwich to London. Until 1700 the area was part of the Borough Fields, farmland over which the freemen of the Borough had certain grazing rights. The Corporation owned the property, but had taken out a mortgage which it could not meet and so the land passed into private hands. The grazing rights were extinguished with due compensation in the early years of the 19th century and the land then became available for development as part of the expanding town.

The first house built in 1809 on the former Fields was Beverley Lodge, still standing today as Gurney Benham House of Colchester Royal Grammar School. The date of West Lodge, next to the west along the road, has not been ascertained, but it was in existence in 1832 when it was owned by George Chapman and occupied by a tenant. The brick wall marking the eastern boundary with the former Beverley Lodge land may be seen still at the end of Silvanus Close. West Lodge was demolished in the 1960s, its site being in the centre of the Close which replaced it. The estate extended westward to Mr Bunting's premises opposite the junction with Sussex Road. In 1848 Chapman sold the house and its estate to John Taylor. The latter was the owner and editor of the Colchester Standard newspaper and he also sat on several public bodies such as the Paving Committee, and the Board of Guardians.

After acquiring West Lodge, Taylor set about extending the garden in a broad strip of his land between Lexden Road and the then public field path to Lexden to the south, which was later to become Queens Road. In April 1849 he was able to arrange a public display of over 150 'cinerary urns and other Roman sepulchral vessels'. The workmen had recovered them from 'about an acre of ground dug from sixteen inches to four feet deep and without exception the vessels were found deposited on the surface of the subsoil of sand or gravel.'

The finds were not unexpected as the area surrounding the Beverley Lodge and West Lodge estates was known to be one of Colchester's Roman cemeteries, but the number of burials, mostly cremations in urns, must have been a surprise. Taylor surmised that at least ten times the number of vessels remained un-exhumed and he may have been right, for many others have been found since. Indeed the Trust excavated three on a West Lodge Road site in 2004.

Taylor belonged to the British Archaeological Association. At their 1849 annual meeting in Colchester he invited members to the display and showed them round the West Lodge site. He was so confident that he ordered 'two spots, at a considerable distance apart, to be opened, both of which afforded success: in the one were found, three feet from the surface, some cinerary urns, an earthen bottle, a lamp, and a cup and a small dish of samian ware; at the other, a large urn, and two smaller vessels of black earth (ie fired clay) standing in a line: some foundations were also laid open, and a large cut stone, which had apparently belonged to a building of considerable magnitude.'

The members of the association must have been impressed by these quick results. However, Taylor jumped to too rapid a conclusion for on examining the cut stone more closely he found that it bore some lettering and some clamp grooves that suggested that it had been part of a tomb or memorial. In relation to the wealth of Roman material from Colchester, inscriptions on stone are rare and this is a small but welcome example, now in the Museum.

The completion of his large garden came at a time when Taylor's newspaper business encountered competition and conflict with local politics. He started to draw in his horns. Tenants responded to an advertisement for the furnished letting of West Lodge, which appeared in the Standard in May 1852. A year later the paper announced a sale by auction of building plots in the field or paddock to the west of the house with a new access road, the Avenue. Today the Museum prominently displays the fine Roman decorated vessel known as the Colchester Vase, the pride of Taylor's collection, found during the construction of the new road .

Taylor may have returned to West Lodge briefly in 1859, but he sold it to Charles Garrad in 1860. The latter was a member of the Essex Archaeological Society and he gave further finds to the Society's own collection in Colchester Museum. On his death, the remainder of the estate was sold for building and in about 1870 West Lodge Road was made for access to the house and to other new houses which soon appeared. Taylor had died three years previously, in 1867.

In 1859 part of the neighbouring Beverley Lodge estate was sold as house plots and Beverley Road was constructed to serve them. No doubt there were numerous finds during the development, but few were reported and conserved like Taylor's. That Beverley Lodge land was an important part of the cemetery was made clear later when the two fine tombstones in the Museum were found; Longinus on the west side of the Beverley Road in 1868 and Facilis on the east side in 1928.

When Gafwell House, latterly Handford Lodge on the corner of Beverley Road and Queens Road, was demolished in 2004, the Trust was able to investigate the site and found many interesting features of the cemetery. In about 1870 the then owner purchased from the West Lodge estate a plot on the corner of West Lodge Road and Queens Road so that an entrance drive from the former could be made and then Gafwel House became 6 West Lodge Road.

In 1990 ground which had been part of the drive of No 6 was being cleared for a new building when the builders broke through the vaulted roof of a subterranean building. The Trust inspected the structure, counted fifteen niches in its walls and photographed it. The brief report suggested that it might be a Roman *columbarium,* either a dovecot or a burial chamber with niches for holding cremation urns. In view of the underground location in a cemetery, the second alternative seemed the more likely, but the report commented that it looked like an 18th/l9th-century cellar The following extract reveals all.

The Essex Standard of 25 June 1852 reported on the Annual Show of the Colchester and East Essex Horticultural Society, held in the grounds of West Lodge. The description of the garden, perhaps by Taylor himself includes the following:-.

'Beyond the lawn is a small enclosed paddock, surrounded by plantations and shrubberies, amidst which is a miniature dell, formed by excavating gravel for the walks; and in this dell (an object of great interest to visitors) stands a model of a Roman family tomb, constructed of Roman remains found in the grounds and the neighbourhood; the tomb contains fifteen small niches, in each of which is placed a cinerary urn; and on a shelf in front of the recesses were numerous smaller urns, some of Samian ware and glass, which had contained offerings by friends of the dead, of meal, corn, wine, balsams &c. These sepulchral vessels (with a large number deposited at the Town Hall) were dug up in the grounds. A printed card placed in front of the iomb, which supplied the foregoing particulars, bore the following :-

DIS MANIBUS
M.AURELIUS SIBI ET CIONJVGI ET LIBERIS
ET LIBERTIS ET LIBERTABVSQ POSTERIQ
EORUM FECIT

To the divine Manes,
M. Aurelius, for himself, his wife and children,
his freedmen and freedwomen and their children,
erected this tomb

So the *columbarium and* the inscription were indeed 19th century, but the vessels were Roman and one hopes that they went, albeit unrecorded, to the Museum when the structure was abandoned. The fifteen niches were certainly empty in 1990!

Spoil heap

By Kate Orr

Trust staff have been travelling to pastures new in 2005 conducting work in other parts of Essex as well as on our home turf. They have suffered frost bite, trench foot, sun-stroke and narrowly escaped electrocution in the name of archaeology, so please read this bit otherwise it will all have been in vain!

Prehistoric Maldon Road, Sandon, Chelmsford

If you use the new Park and Ride site at Sandon in Chelmsford, you might be interested to know that you are parking on a Late Bronze Age/Early Iron Age settlement. Seventeen evaluation trenches were excavated by the Trust which encountered pits, post-/stake holes and ditches suggesting domestic activity. In addition, there was a single cremation burial sited away from the other features which is likely to be Late Bronze Age/ Early Iron Age in date. The area would have been suitable for settlement, being at the top of a free-draining ridge above the River Chelmer. This is an area where there is evidence of considerable prehistoric activity, with two other areas of prehistoric settlement nearby, ie the Great Baddow enclosure at Manor Farm 1 km to the west and the large enclosure complex at Springfield Lyons 3km to the north.

Iron Age/Roman rural Colchester Garrison

Readers may have noticed, when travelling down Berechurch Road in Colchester, that the land between Berechurch Hall Road and Ypres Road is currently a huge building site. The Trust has been monitoring the groundworks for the new Garrison development here, come rain or come shine, since February 2004. This land is within the pre-Roman oppidum of Camulodumum, in the open areas of which, cropmark photographs show enclosures and small fields, sometimes linked by trackways. A picture of the landscape is beginning to emerge, based on recent excavations and evaluations associated with the new garrison project (CA **16** and **17**). The watching brief, as well as some investigations at the Musket Club and Abbey Field, has located some of these cropmark features on the ground. There was also a chance to monitor a trench being dug across Berechurch Dyke - an Iron Age defensive earthwork.

Great Notley Business Park, near Braintree

An archaeological watching brief and an evaluation consisting of 1,400m of trenches were carried out prior to the creation of a business park, the emerging buildings of which may be seen from the A120. The presence of cropmarks prompted the investigation. After a somewhat uninspiring start and a couple of incidents with the hire van, evidence emerged for Late Iron Age and early Roman occupation in one area of the site. Excitingly, a second phase of work is to start in 2006.

Birch sand and gravel quarry, near Colchester

A programme of archaeological investigations by CAT since 1992 at the Hanson Aggregates quarry has provided significant additions to our knowledge of prehistoric and Roman activity in this part of Birch. The latest phase of work has just been completed near Palmers Farm, following on from work last year (CA **18**). Remains of a small rural early Roman settlement with a Late Iron Age background were recorded. No structural remains have been found, rather trackways and ditches and pits, a deep pit (possibly a well) and Roman tile. After suffering wind exposure and several mud-related impediments, the crew soon came to realize why the Roman settlement did not last very long.

Medieval Little Wigborough Church, Copt Hall Lane, near Colchester

St Nicholas' church is a charming place standing as it has for over 500 years, next to the saltmarsh, looking out over Salcott Channel. Cracks have been appearing in the north-western side prompting an English Heritage funded programme of repair. CAT examined an exploratory trench inside the church and excavated four test-pits around the outside to check the foundations. This has provided useful information for the architect and has answered some questions about the structural development of the church.

Little Wigborough church.

Roman Villa at Petches Yew Farm, Finchingfield

A Roman villa was discovered during trial trenching carried out by the Trust in response to the planned construction of a reservoir. A concentration of Roman flue tiles and roof tiles was observed on the field surface which proved to be the site of a Roman building with a mortared flint foundation and a probable hypocaust. Another Roman building probably of timber construction with a tiled roof was revealed to the east. Beyond the area of the Roman building and across the whole site were numerous ditches which suggest a long period of occupation. Sherds of Middle Iron Age and Late Iron Age date demonstrate later prehistoric settlement on the site.

Roman remains at Petches Yew Farm, Finchingfield.

Birch Airfield Compost Site, near Colchester

A watching brief at a large compost processing site in Birch Airfield resulted in the discovery of possible field ditches and a trackway, plus pens or other structures. These were associated with occupation from the Late Iron Age or Roman period onward. The presence of Roman roof tile and brick points to one or more buildings on the site or nearby. The archaeological features, as well as being important in their own right, served to distract from the dire smell.

Roman urban Mercury Flats, Balkerne Gardens, Colchester

An evaluation was carried out at Mercury Flats. The residents kindly did not seem to mind the digging up of their flower beds, especially when we exposed a complete Roman pot, probably buried as a foundation deposit, amongst remains of Roman walls and floors. The site is next to the road running east to west from Balkerne Gate so that the large quantity of Roman material recovered was no surprise.

Lexden Grange, Colchester

Two trial-trenches were excavated at Lexden Grange at the former planning offices on Lexden Road. Two Late Iron Age cremation burials had been recorded previously on the site and the Trust was hoping to find at least one more. The evaluation failed to locate any further examples but did find a large 2nd-century pit with evidence of burning - missed again!

St Helena School

Three small test-pits were excavated by hand next to the drama block at St Helena School, which is within the scheduled ancient monument of Sheepen. Features were found of early Roman, probably 1st-century AD date. These suggest domestic use similar to that identified as a result of previous investigations nearby. The finds include a sherd of Arretine samian bearing a potter's stamp not recognised in Colchester before. The children kept asking us, 'What are you doing?' and (worse) 'Why are you doing that?'. Bless them - they obviously haven't been watching enough Time Team.

Colchester High School, 17 Wellesley Road

An archaeological evaluation was carried out at Colchester High School, which is within an area of Roman burials. One grave was revealed and there is the likelihood of earlier, disturbed cremation burials on the site. No structural remains were recorded, and the evidence points to this being an open, unoccupied area used for burial plots and rubbish-pits. Some teachers did jokingly request we 'lose' a few naughty pupils in the trenches, but we naturally declined.

Clarendon House, 2-5 Parkway, Chelmsford

We made another foray into Chelmsford to carry out an archaeological evaluation in a carpark near Moulsham Street. This confirmed the survival of Roman layers (probably of 2nd- century date) and linear features in the eastern part of the site which may form part of the line of Caesaromagus' western defensive ditch.

Visitor centre, 2-3 Queens Street, Colchester

Renovation of the Visitor Centre opposite the Castle went on for several months. Part of the original 15th-century structure survives within the building. Digging down through the tudor floor levels, a Roman foundation was encountered which evidently had been part of a building fronting the main road leading to the East Gate of the town.

East Mill, East Street, Colchester

An evaluation was carried out prior to residential development to the north-east of the mill, which is to the rear of Charlie Browns (CA **18)** and the Siege House. No remains of the medieval mill were encountered, although the evaluation indicated that the course of the millrace was formerly to the east of the river's present course.

Post-medieval 10/10a East Street, Coggeshall

A watching brief was carried out on groundworks for the construction of a small dwelling at the rear of the property. The property is situated on the south side of the main road through the town (which follows the line of a Roman road) and is close to the medieval centre of the town located around Market Hill. Within the construction trenches, there were the remains of a gravel surface and several clay-packed post-holes which represent a previous outbuilding. The poor quality of the gravel surface suggests a yard, although, in conjunction with the post-holes, it may represent a covered surface belonging to the outbuilding. Pieces of bricks recovered from the surface suggest that it is almost certainly of post-medieval (17th- to 18th-century) date.

The Kelvedon Warrior

One of the highlights of the exhibition *'Rulers, Warriors and Druids: Essex Communities Conquered by Rome'* at the Castle Museum in Colchester is an Iron Age warrior burial from Kelvedon. Paul R Sealey of Colchester Museums tells the story of this unusual find.

In February 1982 David Bunting was digging a pit for gravel to repair tracks on his farm at Kelvedon. When the mechanical digger disturbed a rusty sword and a complete pot, he turned for help to a retired policeman called Jim Bennett whose hobby was archaeology. It did not take him long to realise that he was dealing with a pre-Roman warrior burial. Outside Yorkshire, there are only about fifteen Iron Age warrior burials in England and Wales, so the discovery at Kelvedon was a find of national importance. Meanwhile the grave pit had flooded with ground water but, despite the danger, Jim had himself lowered into the hole in the bucket of the digger to complete the work.

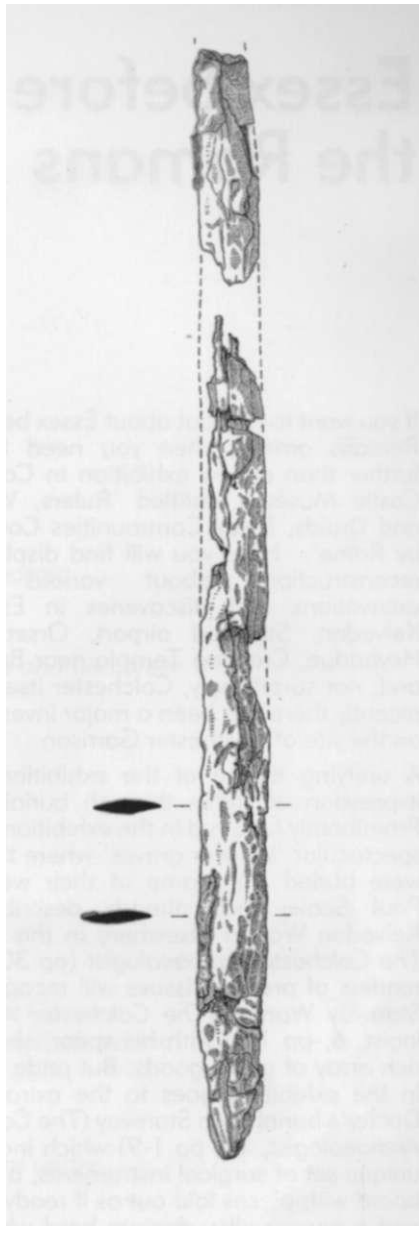
The findspot was on a hillside south of the river Blackwater overlooking Kelvedon. Beneath modern Kelvedon there was an important late Iron Age village, and that was presumably where the warrior had his home. Apart from a satellite grave represented by a single pot, there were no other burials in the vicinity.

Weaponry from the Grave

Excavation of the pit brought to light a sword, a fragment of a dagger (or short sword), a spear and a shield. The sword is slender with straight, parallel sides; weapons of this kind - the La Tene III sword - originated in Gaul and were adopted in Britain. The Kelvedon weapon had been made from several separate rods of iron, a technique known as piling. Its scabbard was made from two plates of bronze; the outer plate had been decorated (uniquely) with an applied strip of tin that ran the length of the scabbard. Both scabbard

Left. Jim Bennett, discoverer of the Kelvedon Warrior grave.

Above. The findspot as it is today.



Above. Tankard handle.

Right. The remains of the iron sword.

plates had been fastened at the end by a cast bronze chape or terminal. All that survives of the iron dagger is a short length of double-edged blade with a tang. The socketed spear has a long waisted iron blade; it had a shaft of ash wood, fitted at the end with a pointed cap called a ferrule. A fragment of the iron boss is all that is left of the shield; the rest must have been made from some perishable organic material such as wood.

Other grave goods

The other finds from the grave included a bronze bowl imported from Roman Italy. A wooden tankard was represented by u-shaped binding from the rim and a fine moulded handle reminiscent of those on some contemporary mirrors. A set of iron fittings had come from a large plank-built structure; it was not a coffin, and its function is unclear. Kelvedon is remarkable for being one of the very few Iron Age warrior burials with pottery, in this case two elegant wheel-thrown vessels called pedestal urns.

The funerary rite

No human remains were found in the grave. This is hardly surprising because the soil at Kelvedon is acidic enough to destroy a buried human body in its entirety, given time. Most other Iron Age warrior burials in Britain were inhumations but we shall never know for sure with Kelvedon. At the funeral the sword was taken out of its scabbard and bent; so too was the spear. This ritual killing of weapons in both graves and hoards is widely attested in Iron Age Europe. At some stage in the proceedings at the funeral the sword blade had been wrapped in linen. This is a more unusual rite, unknown elsewhere in Iron Age Britain; the nearest parallels are some warrior burials on the Channel Islands.

Date

The pottery in the grave is a kind known as 'Belgic'. It is present in graves in south-eastern Britain from about 75 BC, although it does not become common on settlement sites in Essex until about 50-25 BC. There was no imported Roman table crockery - such as flagons, platters or beakers - suggesting the funeral took place before such wares reached Britain from about 25 BC. Links between the tankard handle and mirror handles confirm the 1st century date for the grave because mirror production in south-eastern Britain had come to an end before the 1st century AD.

The French connection

The form of the spear blade at Kelvedon is not typical of those found in Britain in the Iron Age, but it does have many parallels across the Channel in Gaul. Likewise the shield boss is a mainland European type; the sword is ultimately Gaulish in inspiration as well. It looks as if the armourer who provided at least some of the weaponry used by the Kelvedon warrior was a Gaul. It is unlikely that a Gaulish armourer would have settled in Iron Age Britain and a simpler explanation is that the warrior had acquired these foreign weapons for himself in Gaul. We know that the Britons lent military assistance to the Gauls and the Belgae in their wars against Caesar between 58 and 51 BC. There is a real possibility that the Kelvedon warrior was one of these mercenaries. The coins that circulated in the region at the time of the funeral show he belonged to the Trinovantes tribe. Fighting with three weapons (sword, spear and shield) developed on the mainland of Europe in the 3rd century, but it was not adopted in Britain until the 1st century BC. Travellers like the Kelvedon warrior played a key part in its introduction to Britain.

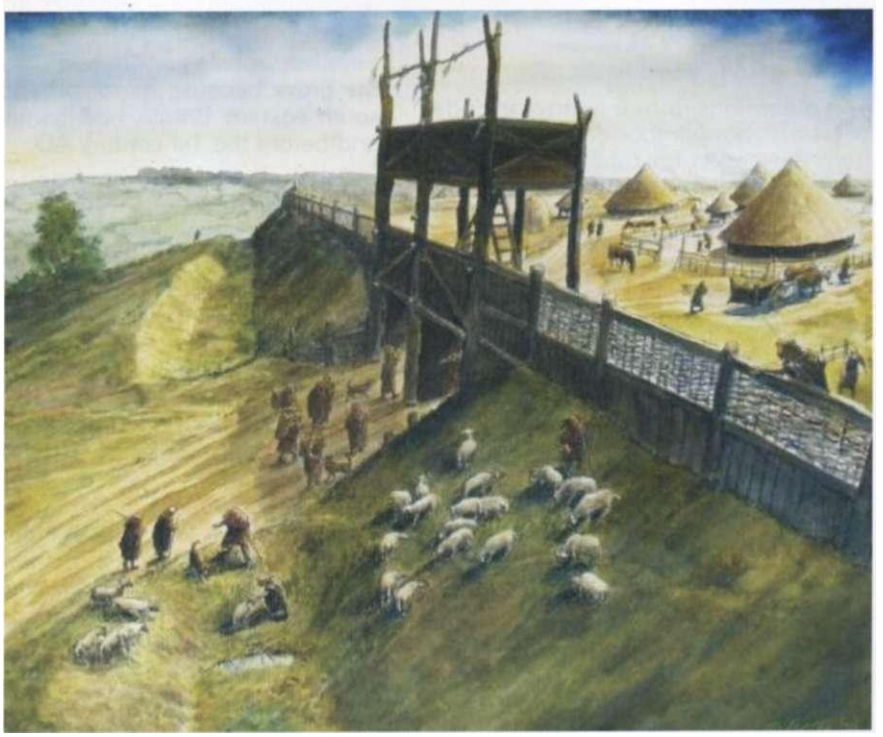
Social standing of the warrior

Most Iron Age warriors were only equipped with a spear, or sometimes a spear and shield. Armed as he was with a sword, shield and spear, the Kelvedon warrior was clearly not a rank and file fighter; his elite status is confirmed by the decorated tankard handle and the imported Roman bowl.

The Kelvedon project

Sadly, the finds from this important grave were dispersed after its discovery; the death of Jim Bennett in 1994 did nothing to help. But after a good deal of detective work, I tracked them down and was able to assemble all the surviving finds at the museum for display and research. None of this would have been possible without the active support of Jim Bennett's sons, Paul and Robert, who have generously lent the finds to the museum.

Essex before the Romans



If you want to find out about Essex before the Romans arrived, then you need look no further than a new exhibition in Colchester Castle Museum entitled 'Rulers, Warriors, and Druids, Essex Communities Conquered by Rome'. Here you will find displays and reconstructions about various recent excavations and discoveries in Essex: at Kelvedon, Stansted airport, Orsett Cock, Heybridge, Cressing Temple near Braintree, and, not surprisingly, Colchester itself where recently there has been a major investigation on the site of Colchester Garrison.

A unifying theme of the exhibition is the expression of status through burial goods. Prominently featured in the exhibition are two spectacular 'Warrior graves' where the dead were buried with some of their weaponry. Paul Sealey has already described the Kelvedon Warrior elsewhere in this issue of *The Colchester Archaeologist* (pp 30-1) and readers of previous issues will recognise the Stanway Warrior *(The Colchester Archaeologist,* **6,** pp 1-5) with his spear, shield and rich array of grave goods. But pride of place in the exhibition goes to the extraordinary Doctor's burial from Stanway *(The Colchester Archaeologist,* **10,** pp 1-9) which included a unique set of surgical instruments, a gaming board with pieces laid out as if ready to play, and a copper-alloy strainer bowl which had been used to prepare a brew of mugwort or wormwood. Other objects in the grave included a strange set of eight metal rods. Their purpose is unclear but certain features about them such as their shape and size and the way in which then had been placed in the grave suggest that they may have been used for divination. The evidence in the grave for healing and magic raises the possibility that the Doctor was a druid.

Archaeologists may seem preoccupied with death and burial. Many of the exhibits confirm this preoccupation as indeed does the unusual reconstruction of an Iron Age funeral pyre (fortunately as yet not lit). But burial grounds can provide much information about the people of the past as this exhibition shows especially the better off whose relatives and friends would bury items which in some cases must have been valuable at the time.

Another theme in the exhibition is settlement in the Late Iron Age in Camulodunum and elsewhere in north Essex with important recent discoveries of settlement sites illustrated by new reconstruction paintings.

The exhibition will close at the end of 2006.

Above. The Doctor's burial from Stanway.

Below. A conjectural reconstruction of the defences which protected the Sheepen site (now the Hilly Fields) c AD 25. The earthwork is the Sheepen Dyke. The timber gate straddles the main route into the site from the west (to the left). Painting by Peter Froste.

The Friends of Colchester Archaeological Trust

The Friends of Colchester Archaeological Trust was founded in 1977 to keep interested members of the public in touch with the work of the Trust in and around the historic town of Colchester. The membership in early 2006 numbers about 500 households as well as many local primary schools and several professional organisations. This year sees a new departure for the Friends, with some local businesses joining as Corporate Members. Most of the individual members live in Colchester and north Essex, but there are some as far afield as Wales, Scotland, Northern Ireland, Germany and the USA.

Every January the Friends meet in the sanctuary of the Lion Walk United Reform Church to hear about the excavations and other work that took place the previous year. In 2005 the talks were mainly about the Roman circus on Abbey Field and the surrounding Roman cemeteries.

In early February the Friends had a final visit to the site of the circus, but changes to the plan of the new housing development mean that the foundations will still be preserved below ground, and there are plans for an interpretation centre there to explain its position and layout.

In March a party of the Friends met in London for a tour of churches in the City and Moorgate. The highlights were St Bartholomew the Less and St Bartholomew the Great in Barts Hospital, and John Wesley's Chapel and house opposite the Nonconformist burial ground of Bunhill Fields, where William Blake, John Bunyan and Susanna Wesley, mother of John and his hymn-writing brother Charles, are buried.

In May a coach party of members went to Norwich for a tour of the Norman keep led by Brian Ayers of Norfolk Museums Service. The differences and parallels between the two castles of Colchester and Norwich made this an intriguing morning. After the tour there was free time for members to visit the Museum's galleries, including the Boudica Gallery and the new Anglo-Saxon and Viking gallery, as well as to visit other places of interest in the city, such as the smaller museums and the cathedral.

In late June the Friends visited Anglesey Abbey near Cambridge. Little remains of the 12th-century Augustinian Abbey, which was converted into a fine Jacobean country house after the Dissolution. Today the Abbey is mainly noted for the surrounding 98 acres of garden and park land which were landscaped and planted in the early 20th century to turn the property into a record of garden styles, with informal and formal plantings. There are many woodland walks, small secluded formal gardens, and larger sections devoted to flowers, of which the herbaceous border is the most spectacular. The many mature trees and plants also provide food and shelter for a rich variety of insects and birds. A world-famous collection of statuary and a working water-mill add to the interest.

On a very rainy day in September a coach party visited Thetford, where Robert Atkins of Cambridgeshire County Council's Archaeological Field Unit led a walk explaining the continuous development and shifting focus of occupation of the town from the Late Iron Age to the medieval period. Located at the crossing of the river Ouse by the Icknield Way, by the Middle Saxon period the town was a thriving trading centre equal to Hamwic (Southampton) and London, with a large defended area south of the river. At the time of the 1086 Domesday Survey the town was the sixth largest in England, and the bishopric of East Anglia had moved there from North Elmham, only to be moved on again to Norwich some twenty years later by Herbert de Losinga. Thanks to its 12th-century Cluniac Priory, Thetford remained an important religious centre in the early medieval period and at one time the town had 22 churches, but it was gradually eclipsed by Norwich and fell into decline.

Back for a second extended session by popular demand, in late October Steve Benfield of Colchester Archaeological Trust held a Roman pottery workshop in the hall of the Lion Walk United Reform Church, where he and his helpers taught members how to identify particular types of Roman pottery. Friends worked hard to master the characteristics of various ceramic fabrics and the vessel forms made from them. Several members of the Friends help at the Trust by washing and marking the pottery, and this gave them an opportunity to learn about Roman ceramics in more detail.

Nina Crummy

Freda Nicholls

It is with great sadness that we have had to say goodbye to our long-standing good friend Freda Nicholls who died in January earlier this year. Freda was a regular volunteer helper at the Trust and a long-standing member and supporter of the Friends of CAT. She was a bright and cheerful person with an endearing chuckle who modestly said little about her considerable achievements as a biochemist and weaver. Thursday mornings at Lexden Road will never be quite the same again.

Falcon bones...

The discovery of the bones of at least one sparrowhawk in cremated human remains at the Colchester Royal Grammar School poses an awkward problem - was falconry practised in Roman Colchester or was their inclusion part of the burial rite?

Photograph: Archaeologist Ben Holloway with Keo. Thanks to Colchester Zoo.

Hunting on foot or on horseback was a favourite pastime for the wealthy in the Roman period, as well as an important way of varying the diet. The emperor Hadrian prided himself on being a hunter of big game, and mock hunts using a wide range of animals were set up in amphitheatre arenas as a spectator sport. There were also professional wildfowlers, who hunted birds with nets and by liming twigs. Images of huntsmen, often carrying hares or wildfowl, were used on mosaics and intaglios, and Bonus Eventus, the Roman god of good fortune, can appear on intaglios set into finger-rings as a huntsman. A different slant to the hunting theme appears on 1st-century AD lamps from London and Gloucester that show a humanoid fox dressed as a fowler trying to snare a bird sitting up in a tree, an image that may have been used to symbolise the soul (the bird) escaping from evil spirits (the fox-headed monster). When Augustus was cremated an eagle was released from the pyre so that its upward flight symbolised the rising of the emperor's soul to heaven.

Among all these images of hunting there is very little evidence for falconry, and even a scene showing wildfowlers on the famous 'Little Hunt' mosaic in the 4th-century Villa Romana del Casale at Piazza Armerina, Sicily, is ambiguous. Set among designs showing the hunting of boars, foxes, stags and hares, as well as a lavish hunt breakfast, the panel shows two fowlers with bundles of limed twigs on their backs staring up into a tree. One has a bird perched on his shoulder, the other holds a bird in his hand. The perching bird is probably a raptor of some kind, although its beak is not curved and in general it does not look much like a bird of prey, while the one being carried is dove-like and more likely to have been captured.

Apart from the eagle of Jupiter, also used to represent Roman imperial power, other raptors are not common in Roman art, but there is a bronze hawk from Colchester in the British Museum. It may have been a votive offering associated with the cult of Isis - the falcon represents her son, the sky-god Horus, in Egyptian mythology and the hieroglyph for 'god' was a falcon on its perch. There is evidence for the worship of Isis in London and elsewhere in Britain, and it is quite likely that followers of the cult also lived and worshipped in Colchester.

With so little evidence for falconry apparent in the Roman world, the sparrowhawk and juvenile raptor bones in the cremation at Colchester seem just as likely to have been used as part of the burial rite rather than included among the grave goods of a falconer. The ritual sacrifice of birds of prey and carrion-eaters, all non-food birds, occurs at several places in Britain. As early as the 4th century BC raven bones were among the items placed in special deposits at Danebury, Hampshire. The clearest example from the Roman period are the sixteen bird burials found in a votive shaft at the temple at Jordan Hill, Dorset. The birds were buzzards, crows, ravens and starlings, and each had been buried with a coin in a separate rite. Each corpse lay with its coin between two layers of tiles, with each double tile layer separated by a layer of ash. At Colchester a pit on the Sheepen site contained the remains of several non-food birds, among them a raptor and carrion-eaters, as well as a puppy, an assemblage strongly suggestive of ritual sacrifice. Dogs were often used as ritual offerings as they were thought to be able to acting as guides to the dead on the journey to the underworld.

Nina Crummy

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