

Dear Earthwatcher,

Thank you for the interest you have shown in our research project at Arbeia Roman Fort, at South Shields, on the river Tyne in Northeast England. My name is Nick Hodgson, and I am a professional archaeologist employed by the local Museums Service here on Tyneside. For a number of years, my colleagues, Paul Bidwell and Graeme Stobbs, and I have had the privilege of conducting research on one of the most important Roman military sites in northern Britain. Perhaps as early as the first century AD, the Romans occupied the site at South Shields because it defended an excellent anchorage. The fort became part of the frontier system instigated in AD 122 by the emperor Hadrian: his famous wall starts only four miles west of South Shields, and runs for 80 Roman miles across the island of Britain.

There are, of course, several forts that can be visited on Hadrian's Wall, but what makes South Shields special is the permanent, large scale excavation that we are carrying out. This means that there are constantly new discoveries at the site, and that we are producing a more detailed picture of the inside of a Roman military base of the first to fourth centuries than has ever been gained before. South Shields is, therefore, a very exciting place to work.

We feel we are at the forefront of developments in our knowledge of the Roman occupation of north Britain, and we are constantly pioneering new techniques to deal with the complex of remains that face us: for no one before has attempted such large area excavations of a multi-period military site.

In 2008, we will be working in deposits of pre-Roman Iron Age date, and we anticipate significant discoveries, especially about the early, poorly understood transition phase between the Iron Age and the Roman occupation of the site. We will also be working upon a stretch of the foundation of the defensive wall of the Roman fort, where at the end of the 2007 season we encountered fragments of reused masonry implying stone defences or buildings of earlier date. We hope to find more similar fragments during the coming season and these may hold the key to the mystery of when the first Roman occupation of the site took place, and where the nucleus of this early occupation lay.

There is so much to do, and it is for this reason that we have again requested assistance from Earthwatch in order to help us complete the task. The Earthwatch volunteers of 1993-2007 have played an essential role, and impressed us with their skills, enthusiasm, and capacity for hard work. The opportunity is now yours to take part in a research project of the foremost importance, one which is revolutionizing our understanding of the Roman occupation of Britain.

Almost everyone who comes to South Shields, besides getting a lot out of the project, finds that the fort is a pleasant and attractive place to work. The site is set in a quiet residential area with views over the river Tyne and the North Sea. Shops, banks, and all conveniences are near to hand, and both the locals and the site staff are renowned for their hospitality. There will be an excursion to the most impressive stretches of Hadrian's Wall along with a chance to visit either local museums or the cities of York, Durham or Edinburgh. In short, I am sure that besides finding our research project challenging and exciting, you will also be delighted with this fascinating north-eastern part of Britain.

Yours sincerely,

Dr Nick Hodgson, MA, PhD, FSA
Principal Keeper of Archaeology

EARTHWATCH INSTITUTE ANNUAL RESEARCH REPORT

Project title: Roman Fort on Tyne

Date completed: April 2008

Completed by: Graeme Stobbs

Period covered by this report: 3rd June to 15th September 2007

1. Summary of Results

Work continued within the eastern quadrant of the original 2nd century fort (Figs 1 & 2; Plates 4-7), building upon information gleaned in previous seasons (2005-6), examining the fort defensive wall, the rampart situated immediately behind the wall, the *intervallum* street and the rear (south-eastern) wall of barrack block B9, down to the pre-fort horizon.

1.1 Achieving our objectives

- **Discovery of, and information on, the earliest Roman settlement in South Shields**

Work in 2007 has enhanced our knowledge of the earliest Roman occupation, without, however, locating the early settlement nucleus (suspected to be a late-first century or early-second century fort and civilian settlement preceding the known site established around AD 160). The most important developments resulting from Earthwatch funded work in 2007 have been the discovery of fragments of reused masonry in the foundations of the fort established around AD 160, implying stone defences or buildings of earlier date; while Earthwatch volunteers assisting in post-excavation work aided the recognition of an early granary and timber buildings dating to around AD 120-40 west of the known fort.

- **Elucidation of the plan of the first Roman Fort built at South Shields in c. AD 160.**

Work in 2007 has filled in much missing detail on the first known fort of around AD 160. The investigated area includes the rear walls of two of the four barracks, all now identified on the ground and recognized as the accommodation for four troops of 30 cavalry, their riders and their servants (details published in Hodgson and Bidwell 2004); and a stretch of the defensive wall and rampart. We have also collated detailed evidence for the sequence of construction of these buildings and the replacement of the rampart by industrial or storage buildings.

A sequence of replacing the exterior walls of the barracks was noted, with the transition from timber to stone being phased. The officer's quarters were replaced in stone first, leaving the remainder in timber for an unknown length of time before they too was replaced in stone.

Evidence recovered for the construction of the new fort revealed that the ground chosen for the new fort was not under cultivation but grassland, as evident from the cutting of turf blocks during the preliminary digging of the foundation for the defensive wall. The turf blocks were later entombed within the later rampart. Mortar used in the construction, was found to have been mixed close by along with stone chippings which suggested that the stone blocks forming the wall were given a final dressing once in place.

In 2007, we were able to read for the first time an inscription found previously by Earthwatch volunteers, which commemorates some of the building work on the first known fort. The inscription (Fig. 3) is on a building stone and translated from the Latin means: 'The century of Lucius Octavus built this.' recording building work carried out under the command of this particular centurion. The text was obscured by a secondary inscription, making it difficult to decipher when it was found re-used upside down in the wall of one of the supply-base granaries built around AD 210. Unfortunately we do not know what building the inscription originally came from. This inscription provides the first named individual from this period, as prior to this only the legion involved in the construction of the fort was known, the Sixth Legion, from an inscription found within the forecourt of the headquarters building in 1883.

- **Investigation of pre-Roman Iron Age remains**

No progress was made with this objective in 2007. This is because work in this period was concentrated on upper levels in the stratigraphic sequence. Lower levels with pre-Roman remains, located adjacent to the current research area, have been extensively investigated in previous seasons and were fully published in 2001 (Hodgson et al. 2001). In 2007 these lower levels were observed to lie beneath a series of small mounds composed of firm sand. Their distribution was random, and despite several being quarter sectioned, investigation produced no significant information about the function of these mounds. The lower part of the stratigraphic sequence will be contacted again in 2008 when the pre-Roman Iron Age will once more become a focus of attention.

- **Enhance knowledge of the system of supply to the fort and port of South Shields by the recovery of quantifiable material from stratified and closely datable contexts**

Particularly important in 2007 has been the recovery and study of large groups of pottery from the period of the first known fort (around AD 160-210); these constitute one of the very few sizeable groups of later-second century pottery from Hadrian's Wall and their publication will enhance pottery chronology and dating for this period. Study of the pottery recovered has resulted in a number of important studies on the supply-networks and dating of pottery types, e.g. Bidwell forthcoming.

On top of a large quantity of other bulk finds, particularly animal bones, iron nails, and shells there were also forty-four individual small finds. These included a bone hairpin with a 'pine cone' head (Plate 1), a bronze 'trumpet' brooch (Plate 2), a stamped samian pot base (Plate 3), numerous fragments of vessel glass, iron hobnails (from the soles of boots and shoes), an iron loop, heavily corroded fragments of iron bars, a fragment of a pottery lamp, and an assortment of flint implements, mainly scrapers, which had become re-deposited within the Roman layers from the insertion of posts and pits deep into the pre-Roman horizon.

- **To recover the complete plan of the accommodation within the third century supply-base**

In 2007, the investigation added important information to our knowledge and understanding of the 24 granaries of the third-century supply-base, and particularly important in 2007 has been the finding of an abortive set of foundations for the granaries within the research area; and the study of another example of a series of

dividing walls that were built across the southern ends of the streets separating the granaries evidently with the rigorous intention of separating the area of the supply-base from the accommodation area of barracks and administration in the southern part of the fort.

In 2007, an important set of inscriptions, found two years previously by an Earthwatch volunteer, on a pair of identical lead sealings, was deciphered for the first time. These small seals, about an inch in diameter, rather like wax seals but made of lead, would be used to seal packages or cargoes in transit (Arbeia Roman Fort was a busy Roman military supply-base). The inscriptions are now known to bear the name of the Fifth Cohort of Gauls (abbreviated to CVG), the unit that garrisoned the supply-base in the third century AD. The seals are also inscribed with the name of the officer in charge, Aemilianus, who was a decurion: a commander of a troop of 30 cavalrymen. The Fifth Cohort of Gauls have long been known to have been based at South Shields, but this is the first direct evidence in 130 years of excavation that the Cohors V Gallorum was a part-mounted unit. This is a big breakthrough, and allows a stable-barrack found in an earlier stage of the excavation of the supply-base phase to be identified as accommodation for the troopers of Cohors V Gallorum.

- **Definition of the extent and date of the extra mural activity**

In 2007, Earthwatch volunteers participated in the post-excavation analysis of an excavation within the civil settlement and a publication report is now in draft. The results of this excavation have been of great importance. It has produced the earliest Roman structures (a granary and other buildings, probably lying outside an undiscovered fort) ever found at South Shields. They date to the Hadrianic period (around AD 120-140). Subsequently, the area was part of the vibrant vicus, or civil town, outside the walls of the known and visible fort. Such civil settlements in the Hadrian's Wall zone have rarely seen much excavation in the past. Timber commercial buildings and two wells were found, belonging to a community that flourished in the period AD 160-260. The extensive pottery series from the site will form an important part of the report. The pottery proves that the settlement went out of use around AD 270. The excavations showed that the ruins of the former vicus were overlain in the fourth century by an agricultural field system that must have surrounded the late-Roman fort. It has only been recognised recently that the civil settlements of the Wall forts may have been abandoned long before the end of the Roman period. The Hadrian School excavation provides the clearest demonstration of this to date.

Despite these great advances in knowledge made during 2007, there remain outstanding problems regarding the overall plan of the civil settlement and its relationship to the fort. It is hoped that future work will address these issues.

Bibliography

Hodgson, N, Stobbs, G.C. and Veen, M, van der. 2001. An Iron Age settlement and remains of earlier prehistoric date beneath South Shields Roman Fort, Tyne & Wear. The Archaeological Journal 158, 62-160.

Hodgson, N and Bidwell, P. 2004. Auxiliary barracks in a new light: recent discoveries on Hadrian's Wall, Britannia 35, 121-157.

Mattingly, D. 2006 An Imperial Possession. Britain in the Roman Empire. Penguin History of Britain Series. London.

1.2 Contribution to Conservation

Archaeological remains are often as endangered and threatened as the present natural environment. The Roman fort at South Shields is a scheduled ancient monument and part of the UNESCO Hadrian's Wall World Heritage Site. The Hadrian's Wall World Heritage Site requires careful conservation and management to ensure that as a cultural resource it will be available for future generations. Yet no-one knows for certain just how much of the archaeology of Hadrian's Wall has survived, and detailed work on the archaeology of the Wall and its forts is very much in its infancy. The *Roman Fort on Tyne* project, the most extensive sustained excavation of the interior of a Roman fort in Britain, aims to provide a more secure basis of knowledge which can inform future plans for the management and conservation of the fort at South Shields and the rest of the World Heritage Site. Analysis of the results from the excavation of the *vicus* (civil settlement) outside the fort walls has revealed that the plan of the entire settlement is likely to survive at a depth of between 1.5 and 2m beneath the buildings and streets of modern South Shields. Yet this area outside the walls is not included in the scheduled ancient monument area and does not have statutory protection.

The knowledge of the surviving ancient environment gained from The *Roman Fort on Tyne* project is passed on to conservation officers of the local authority who will use the information to ensure that future building development and intrusive work will only take place after appropriate archaeological mitigation and recording of threatened remains.

1.3 Significance/ Benefits of Research

- **Local significance**

Fundamental significance; as it provides educational resource for local schools and students, attracts visitors to area of high economic deprivation and unemployment, provides opportunities for training programmes for long-term unemployed, provides employment, and raises national and international profile of South Tyneside.

Since January 2007 the research site has been the focus of vocational training scheme for locally based undergraduates, graduates and post-graduates being part of a Cultural Sector Development Initiative funded by the Arts Council Northeast using money from the European Social Fund (ESF).

- **National / Regional significance**

It contributes to the management and conservation of Hadrian's Wall World Heritage Site; sets standards for archaeological research, publication and training; provides resource for archaeological departments of two regional universities (Newcastle and Durham); publishes archaeological data of national significance: see, for example, frequent citations of evidence from South Shields in the most recent book length scholarly treatment of Roman Britain (Mattingly 2006).

- **International significance**

The results of the excavations have attracted international attention among professional archaeologists and those concerned with the presentation and display of heritage sites.

2. Communication of results

2.1 Printed communications

Publication type: **Book**
Author: **P. Bidwell**
Full reference: **Roman Forts in Britain (Tempus, 2007)**
Audience: **Popular/scholarly**

Publication type: **Peer-reviewed scientific publication**
Author: **P. Bidwell**
Full reference: **'The pottery supply on Hadrian's Wall in the fourth century', in R. Collins and L. Allason-Jones (eds), *Finds from the frontier* (CBA Research Report, forthcoming)**
Audience: **Scientific**

Publication type: **Academic period Journal**
Author: **N. Hodgson**
Full reference: **a summary account of the 2007 work in 'Roman Britain in 2007' *Britannia xxxix* (forthcoming 2008)**
Audience: **Popular/scholarly**

Publication type: **Newsletter**
Author: **The Arbeia Society, an independent charitable trust which promotes the Roman archaeology of Tyneside and northern Britain, publishes *Arbeia Magazine*, at four-yearly intervals. This contains illustrated accounts of recent findings, and is sent to members of the Arbeia Society worldwide.**
Audience: **Popular**

Publication type: **Magazine coverage**
Author: **N. Hodgson**
Title: **'Rebuilding a Roman Fort' *Current Archaeology* 215 (2008), pp34-39**
Audience: **Popular**

2.3 Meetings and conferences

Publication type: **Training sessions**
Author: **Graeme Stobbs and others**
Title: **various aspects of the research excavations**
Audience: **students attending vocational training as part of a Cultural Sector Development Initiative funded by the Arts Council Northeast using money from the European Social Fund (ESF).**

2.4 Educational resources: lesson plans; resource packs

Publication type: **Training sessions**
Author: **Ray McBride**
Title: **Processing Roman pottery**
Audience: **archaeology students from Newcastle University School of Historical Studies undertaking undergraduate module in Roman Pottery (Tutor Dr Kevin Greene)**

3. Educational Opportunities

3.1 Involvement of the following groups:

- **Local communities**
- **Students**
- **Early career scientists**
- **Other groups**

Our research work enhances the educational value of the site and also involves the above groups both directly and indirectly. Alongside the site museum, the various full-scale reconstructions, the Timequest interpretative exhibition, the ongoing research excavations and the displayed consolidated remains form the fundamental element in the range of amenities that make the site informative, enjoyable, and educational to school parties and adult visitors alike. Attached to the museum is a small but dedicated team of Learning and Outreach officers who manage and organise events involving local communities and schools, and also, through outreach, take the results of our work and the benefits of our museum to those who find it impossible to visit in person

A specific pre-field season talk is given on site to the general public by one of the project Principal Investigators, which is supplemented by a post-season talk, both of which outline the main results of the research.

Since January 2007 the research site has been the focus of vocational training scheme for locally based undergraduates, graduates and post-graduates being part of a Cultural Sector Development Initiative funded by the Arts Council Northeast using money from the European Social Fund (ESF) and aimed at providing the opportunity to learn about our research methods and principles and provide valuable practical experience to those who are potentially heading into a career in archaeology.

3.2 Helping these groups better understand the conservation of a sustainable environment

As well as the scientific results of our research being interesting and important to the international scientific community specialising in Prehistoric and Roman Archaeology, the results of the project are also applied for the benefit and well-being of the local community in that it improves the setting of this urban archaeological park, re-acquainting residents with an important aspect of their heritage, and attracting more visitors from outside the area to promote tourism in order to supplement the local economy and sustain the local environment as prescribed within the World Heritage Site management plan.

3.3 Contribution to the completion of Masters' theses and other educational research

One post-graduate student has been studying the faunal assemblage from the site during 2007 in preparation for her Masters degree, and a postgraduate from Sudan used both the site and our research data to undertake training in excavation techniques, surveying and AutoCAD, and its application within a Geographical Information System (GIS) package.

Our research has also been used by some of the students participating in the Arts Council/ESF funded vocational training scheme, as part of their undergraduate dissertations.

A small number of A and AS level students have used various aspects of our site and research data as part of their course projects.

Further, as our research is eventually disseminated to a wider, global, audience it is possible that our work has indirectly helped many postgraduate scholars.

4. Acknowledgements

The Principal Investigators would like to acknowledge the generous support of the Arbeia Society, and of course EARTHWATCH and its members, without which the 2007 programme of research could not have taken place. A warm thank-you also to all the staff of TWM Archaeology who supervised particular aspects of the project or contributed to the smooth running of things, in particular Alex Croom, Eddie Dougherty, Liz Elliott, Terry Frain, Kevin Inkster, Ray McBride and Roger Oram. Indispensable volunteer help was provided by numerous individuals, especially George Black, Aiden Ramsey and Jim Frazer, the latter also assisted greatly with the post-excavation. Various students participating in their field training as part of the Arts Council/ESF funded scheme helped out throughout the season, including Miriam Beber, Sophie Laidler, Philip Pearce, Owain Mason, Craig Moffat, Laura Moiser, Michael Russell, Craig Stewart, and Rebekah Watson,