The British Museum

The Portable Antiquities Scheme Annual Report 2012

Foreword

I am very pleased to introduce the 2012 report on the work of the Portable Antiquities Scheme (PAS) and Treasure Act 1996. Over the last 15 years more than 900,000 archaeological finds have been recorded on the PAS database, for the advancement of archaeological knowledge. In the same period, over 8,500 finds have been reported as Treasure, enabling many of the most important archaeological discoveries to be acquired by museums. There is wide acknowledgement that both the PAS and Treasure Act have been an overwhelming success, reflected in the popularity of ITV's *Britain's Secret Treasures*. The first series, in July 2012, averaged 3.5m viewers and a second series was shown this autumn, with an accompanying book.

Before the Treasure Act only about 25 finds per annum were declared to be Treasure Trove. Under the 1996 Act the number of Treasure finds has increased dramatically. This year 990 cases were reported, greatly benefiting public collections across the country. This is in no small part thanks to the many finders (most of whom are metal-detectorists) who have diligently reported their finds. Also involved with the administration of the Act are the Treasure team at the British Museum, the network of national coroners, local museum curators, as well as the Treasure Valuation Committee. Most important, however, are the various funding bodies that enabled museums to acquire Treasure, so I would especially like to thank the Art Fund, the Headley Trust, the Heritage Lottery Fund (HLF), the National Heritage Memorial Fund and the V&A Purchase Grant Fund. It is also right to pay tribute to the enormous generosity of all those finders and landowners who have waived their right to a share of a reward, therefore allowing museums to acquire finds at no, or reduced, cost.

The Treasure Act 1996 would be unworkable without the support offered by the PAS and its network of Finds Liaison Officers (FLOs). The FLOs are the primary point for reporting Treasure finds, but also offer guidance on the Act, write reports on Treasure finds and also help courier them to and from the national museum, for valuation etc. This is in addition to their primary role of recording non-Treasure items found by the public, raising awareness of the PAS and the importance of recording archaeological finds. This report highlights a few of the 73,903 new finds recorded this year, and the ways in which these discoveries are helping to rewrite our understanding of the past.

Since 2011 the PAS has been managed by the British Museum, with funding from the DCMS and contributions from local partners, working together to help deliver the Scheme's aims. This work is guided by the Portable Antiquities Advisory Group, as well as the dedication and support of the FLOs, local managers and other partners. For many, including finders, local archaeologists and museum curators, the involvement of the British Museum overseeing the PAS is crucial to its success, and also that of the Treasure Act. The impact on local archaeology has been great. The FLOs are locally based, and play an increasingly important role in the delivery of local heritage, and in deepening archaeological knowledge. The PAS is a key part of

Neil MacGregor
Director of the
British Museum

the British Museum's nationwide activity, tying in well with other British Museum projects, such as Partnership UK and the various research projects that are making use of PAS data. This includes several collaborative doctoral awards, as well as a Leverhulme Trust grant of £149,000 to study the factors underlying PAS data and an AHRC grant of £645,000 for a project to investigate why so many hoards were buried in Britain during the Roman period.

Given the financial pressures facing all public sector bodies, the PAS has needed to adapt and make efficiencies. The British Museum is nonetheless committed to ensuring the long-term success of the PAS, through its network of locally based FLOs, and the Government recognises this in its Grant in Aid to the Museum.

In recent years the PAS has depended upon external support to enhance capacity, which has been very much welcome. To this end we are extremely grateful to the Headley Trust who have funded interns over the last five years, and the HLF who have funded the development of a project to make the most of how the PAS works with volunteers. I would also like to express my sincere thanks to *Treasure Hunting*, who again have published this report within the pages of their magazine and provided offprints for wider distribution, allowing more PAS funding to be used on its core functions.

Neil MacGregor
Director, British Museum

Filming *Britain's Secret Treasures*

Key points

The main achievements of the Portable Antiquities Scheme (PAS) in 2012 are as follows:

- 73,903 finds were recorded; a total of 903, 774 finds recorded on the PAS database (finds.org.uk/database) to date.
- 990 Treasure cases were reported, up from 970 in 2011.
- 90% of finds were found by metal-detectorists.
- In 29% of Treasure cases one or more parties waived their right to a reward; a two-fold increase on 2008.
- 92% of PAS finds were found on cultivated land, where they are susceptible to plough damage, and both artificial and natural corrosion processes.
- 91% of PAS finds were recorded to the nearest 100m^2, the minimum requirement for findspot information for Historic Environment Records.
- New sites discovered through finds recorded by the PAS include Mesolithic sites in Northamptonshire, Roman villas in Gloucestershire and Shropshire, and an Anglo-Saxon settlement, and possible cemetery, in Hampshire.
- Currently 322 people have full access to PAS data for research purposes, and there are a further 5,497 registered users. To date, PAS data has been used in 368 research projects, including 13 pieces of large-scale research and 71 PhDs.
- 543,534 unique visitors visited the PAS websites, making over 800,080 visits and 4,836,783 page requests.
- Publications associated with the work of the PAS include reports in *Britannia*, *Medieval Archaeology*, *Post-Medieval Archaeology*, and the *British Numismatic Journal*.
- 725 outreach events took place, including talks, finds days and exhibitions. These were attended by at least 33,090 people, including 2,681 children.
- The Scheme's Finds Liaison Officers had regular contact with 197 metal-detecting clubs, attending 843 club meetings.

Medieval harness pendant
from Martock, Somerset
(SOM-3F82B7)

Introduction

Portable Antiquities Scheme (PAS)

Many thousands of archaeological objects (including coins) are discovered by the public (principally metal-detectorists) every year. If recorded, these finds have great potential to transform our knowledge of the past. The PAS offers the only proactive mechanism for systematically recording such finds, which are made publicly available on its online database (finds.org.uk) so this data can be used by archaeologists, researchers, and those with a more general interest in archaeology.

38 locally based archaeologists, known as Finds Liaison Officers (FLOs), are funded through the PAS, covering the whole of England and Wales. Their job is to liaise with the public and record their finds. This work is co-ordinated by a Central Unit (based at the British Museum) of four others, as well as six period specialists and a Leverhulme funded research post. The PAS also benefitted from 16 interns and 221 volunteers in 2012, as well as the contributions of the finders themselves.

The PAS is managed by the British Museum, and funded by the Department for Culture, Media and Sport (DCMS), the British Museum and local partners. Its work is guided by the Portable Antiquities Advisory Group, whose membership includes leading archaeological, landowner and metal-detecting organisations.

Aims of the PAS

The PAS is a partnership project which records archaeological objects found by the public in order to advance our understanding of the past. In order to do this the PAS:
• promotes the maximum public interest and benefit from the recovery, recording and research of portable antiquities
• promotes best practice by finders/landowners and archaeologists/museums in the discovery, recording and conservation of finds made by the public
• in partnership with museums and others, raises awareness among the public of recording archaeological finds in their context and facilitates research in them
• creates partnerships between finders and museums/archaeologists to increase participation in archaeology and advance our understanding of the past
• supports the Treasure Act, and increases opportunities for museums to acquire archaeological finds for public benefit

Treasure Act 1996

Under the Treasure Act 1996 (see finds.org.uk/treasure) finders have a legal obligation to report all finds of potential Treasure to the local coroner in the district in which the find was made. The PAS plays an essential role in the operation of the Act, advising finders of their legal obligations, providing advice on the process and writing reports for coroners on Treasure finds.

The Act allows a national or local museum to acquire Treasure finds for public benefit. If this happens a reward is paid, which is (normally) shared equally between the finder and landowner; interested parties may wish to waive their right to a reward, enabling museums to acquire finds at reduced or no cost. Rewards are fixed at the full market value of the find, determined by the Secretary of State upon the advice of an independent panel of experts, known as the Treasure Valuation Committee (TVC).

The administration of the Treasure process is undertaken within the Department of Britain, Europe and Prehistory at the British Museum. This work involves the preparation of Treasure cases for coroners' inquests, providing the secretariat for the TVC, and handling disclaimed cases and the payment of rewards.

What is Treasure?

The following finds are Treasure if found after 24 September 1997 or, in the case of category 2, if found after 1 January 2003:
1. Any metallic object, other than a coin, provided that at least 10% by weight of metal is precious metal (gold or silver) and that it is at least 300 years old when found. If the object is of prehistoric date it will be Treasure provided any part of it is precious metal.
2. Any group of two or more metallic objects of any composition of prehistoric date that come from the same find.
3. Two or more coins from the same find provided they are at least 300 years old when found and contain 10% gold or silver. If the coins contain less than 10% of gold or silver there must be at least ten of them.
4. Any object, whatever it is made of, that is found in the same place as, or had previously been together with, another object that is Treasure.
5. Any object that would previously have been Treasure Trove, but does not fall within the specific categories given above.

If someone finds something that they believe is Treasure, or is not sure whether it is Treasure or not, they should contact their local FLO for advice.

Early medieval strap-end from Lyminge, Kent (KENT-7D2EC5) acquired by Maidstone Museum

Outreach and learning

Outreach is a fundamental part of the Portable Antiquities Schemes (PAS). Finds Liaison Officers (FLOs) regularly visit metal-detecting clubs and organise outreach events to encourage people to record their finds.

PAS staff also assist those who might wish to use PAS data for archaeological and research purposes, such as through delivering talks and contributing publications.

Learning is therefore a key outcome of the PAS's work, whether that is a young person learning about finds, a finder participating in archaeological fieldwork or an academic examining the relationship between finds and the historic landscape.

Young people

Object handling and getting close to finds is an exciting way for anyone to engage with the past, especially for young people, whether part of formal education or not.

In 2012 David Williams (Surrey and East Berkshire FLO) worked with teachers at the City of London Freemen's School, Ashtead Park, Surrey, to provide pupils with an insight into archaeology, the importance of recording finds and to talk about his work as an FLO. As part of the new Enrichment programme at the school, children in Year 9 (ages 14–15) were given 'taster' sessions on a range of subjects and activities which last for six weeks, including an 'Introduction to Archaeology'.

'Pupils have enjoyed looking at artefacts and hearing about the importance of recording finds properly. Through these sessions pupils have been able to broaden their understanding of the subject and many of them have experienced the excitement of looking at finds for the first time.'
Nigel Fairhurst, teacher, City of London Freemen's School

David also delivered a similar session with pupils at the Hampton School, Middlesex.

'The pupils all had complex needs. They engaged with what David had to say and responded particularly well to some of the items he showed them. The Roman coin and the World War II bullet ignited memories of topics covered in earlier years causing great excitement.'
Claire O'Neil, teacher, Hampton School

David Williams discussing finds with a school pupil

Museums and displays

Many FLOs are based in museums, and it is important for them (and the host partner) to use this relationship to mutual benefit. It is common for FLOs to work with their museum colleagues in various outreach events, including finds days, talks and displays.

Richard Henry (Wiltshire FLO), working with Lucy Ellis (PAS intern), organised a display in Salisbury Museum to highlight the work of the PAS in the county. This includes a section about the finds recording process and a collection of finds – predominately dating from the Bronze Age to the Roman period – found on a nationally important site in the local area. The finder has generously donated a number of finds to his local museum, ensuring these can be enjoyed by future generations.

'We are absolutely delighted to have a display highlighting the work of the PAS. The Scheme makes a huge contribution to our understanding of Wiltshire's archaeology, so it is very important that Richard's work is brought to the attention of our visitors.' (Adrian Green, Director, Salisbury Museum)

The British Museum continues to have a 'treasure' case, in which is displayed interesting finds going through the Treasure process. On display in 2012 was the Viking Age Silverdale Hoard, as well as and a number of items shown as part of the ITV series *Britain's Secret Treasures*. This provides an opportunity for the public to see such finds in London, before they (hopefully) find a home in a museum more local to where they were found.

PAS display in Salisbury Museum

The self-recording day at Verulamium Museum

Volunteers

More and more finds are now being recorded with the PAS, which presents the Scheme with a challenge – how are more finds recorded with existing resources? In 2012 the Headley Trust funded 16 interns, and a further 221 people (including finders) volunteered their time with the PAS, helping to record over 21,611 finds. These volunteers not only provide the PAS with extra capacity, but also provide those who volunteer with new experiences and an opportunity to develop themselves. Now the Heritage Lottery Fund (HLF) has funded the development of a project – PASt Explorers: finds recording in the local community – to widen our volunteer base. Through this the PAS also hopes to promote self-recording for those who wish to log their own finds onto the PAS database, provide more training for volunteers and develop more online content to engage with people from all walks of life and backgrounds. The bid will be submitted in spring 2014 and, if successful, the project will start next summer.

The PAS is already working to develop the skills of volunteers. In 2012 a number of self-recording sessions were offered, including one at Verulamium Museum, St Albans. This training day was organised by Julian Watters (Hertfordshire & Bedfordshire FLO) in response to a growing desire among local detectorists to become more involved in the finds recording process. The participants, who included the chairmen of Hertfordshire's three main detecting clubs, were given instruction in how to photograph and describe their artefacts, and how to use the PAS database as a research tool. Following the success of the day, and both the quality and quantity of the resulting records, a second course has been planned.

In some cases FLOs have coached finders on a one-to-one basis, with some incredible results. Tom Redmayne is a self-recorder in Lincolnshire who has added over 500 finds to the PAS database since November 2010. His records of finds have been of a consistently high standard, and the information now produced is of great benefit to understanding the archaeological landscape of the Lincolnshire marsh region.

'500 was a milestone and I hope to continue through to 1,000 and beyond. Not only have I enjoyed recording my own finds, but also using the database to expand my own knowledge and to help others do the same. The whole database is a growing and invaluable resource and tool for people from many disciplines and walks of life.'
Tom Redmayne, self-recorder

TV and the media

In 2012 ITV screened a television series about important discoveries recorded through the PAS and reported Treasure – *Britain's Secret Treasures*. This was transmitted over six days during the week of 16 July 2012, primetime on ITV1. An average of 3.5 million people watched each episode. A second series was made in 2013 and screened later in that year. The PAS also worked with ITN on a third series of *Mud Men* which was screened on *History* in spring 2013.

The media love stories about intriguing discoveries, hence FLOs are regularly interviewed by local TV, radio and newspapers about recent finds. It is often a challenge for them to persuade reporters that the most interesting thing about a find is its archaeological, rather than commercial, value! PAS staff also regularly contribute to popular magazines, including *British Archaeology*, *The Searcher* and *Treasure Hunting*.

Universities

PAS staff work closely with university departments across the country, in order to highlight the benefits of liaison between archaeologists and metal-detectorists, and how PAS data can contribute to archaeological knowledge. In 2012 this included the universities of Brighton, Central Lancashire, Durham, Newcastle, Nottingham and University College London.

A particularly interesting project involved Stephanie Smith (Sussex FLO), who worked in collaboration with the University of Brighton's Cultural Informatics Research Group as part of the 3D-COFORM project (3d-coform.eu) to incorporate new 3D imaging technology into the way she assesses, identifies and records artefacts submitted to the PAS. Several finds, such as a rare gold disc from a Middle Bronze Age Hoard from near Lewes (SUSS-C5D042), were assessed using Minidome technology, developed by the Katholieke Universiteit Leuven, Belgium. The most stunning result was produced by imaging an inscribed copper-alloy plate of probable post-medieval date (KENT-B0ADE1), which was illegible until imaged, revealing an elaborate graffito of a ship with lettering and further detail.

A number of students have undertaken placements with the PAS, including Rebecca Dobson (King's College, London) who assisted Philippa Walton (Finds Adviser) cataloguing Roman finds from a votive assemblage found at Piercebridge, County Durham, which is currently being processed as Treasure. This experience inspired Rebecca to focus her dissertation on the interpretation of objects found in votive deposits in Roman Britain, and it is hoped that elements of her research will be published in the Roman Finds Group Bulletin *Lucerna*. It also provided her with a valuable overview of both the work of the PAS and of Treasure legislation, which has led to her employment as an Assistant Treasure Registrar in the Department of Britain, Europe and Prehistory.

Filming *Britain's Secret Treasures* in Room 2, British Museum

3-D imaging of PAS finds at the British Museum

Research

The data collected by the PAS is an important research tool, used by archaeologists, academics and those with an interest in their local area. Currently 322 people have full access to PAS data for research purposes. The data has also been used in 368 research projects, including 13 pieces of large-scale research and 71 PhDs. There are also a further 5497 registered users, who are able to interrogate PAS data relating to their own finds.

In March 2012, Dr Katherine Robbins started a 3-year project funded by the Leverhulme Trust on 'The Portable Antiquities Scheme as a Tool for Archaeological Research'. This will explore the biases inherent in the PAS data and investigate the extent to which the distribution of finds is representative of the historic distribution of activity. By providing a clear analysis of the factors underlying the dataset the project will enable the rapidly-growing PAS database to be exploited to the full in the future.

In November 2012 notification was received from the AHRC that a joint bid between the British Museum and Leicester University for a £813k project on 'Crisis or Continuity? The deposition of metalwork in the Roman world: what do coin hoards tell us about Roman Britain in the 3rd century AD?' This project started in Summer 2013, with the appointment of Dr Eleanor Ghey and Dr Adrian Chadwick as research assistants.

The Arts and Humanities Research Council (AHRC) has funded a number of Collaborative Doctorial Awards using PAS data. This year PhDs were completed by Richard Kelleher (Durham University) – *Monetisation and Coin-use in Medieval England and Wales: new interpretations made possible by the PAS*, Ian Leins (Newcastle University and Birkbeck College) – *Numismatic Data Reconsidered: the use of coin distributions and interpretations in studies of Late Iron Age Britain*, and Sophie Adams (Leicester University) – *A Study of Late Hallstatt and Early to Middle La Tène Brooches in Britain*. Ongoing PhDs include Anna Booth (Leicester University) – *A New Study of the Penannular Brooch in Britain*, Michelle Statton (University College London) – *Dress, Adornment and Identity in Late Iron Age and Roman Britain*, and Rob Webley (University of York) – *Conquest and Continuity: characterising portable metalwork in Late Saxon and Anglo-Norman England, AD 900–1250*. In addition, Adam Daubney (Lincolnshire FLO) is working on a part-time PhD (Leicester University) on *the Portable Antiquities Scheme in Lincolnshire*.

This year's PAS conference, held jointly with the Medieval Settlement Research Group, examined finds in the medieval landscape. Speakers included Eleanor Stanley (Ashmolean Museum), Tim Pestell (Norwich Castle Museum) and Letty ten Harkel (University of Oxford). The 2013 Conference examined post-medieval finds.

PAS staff regularly contribute to *Britannia*, *Medieval Archaeology* and *Post-medieval Archaeology*, as well as various other specialist and local journals to highlight important discoveries and their relevance for furthering archaeological knowledge.

Rebecca Dobson recording the Piercebridge assemblage.

Best practice

By following the *Code of Practice for Responsible Metal Detecting in England and Wales* (endorsed by the main archaeological, metal-detecting and landowner organisations), detectorists are ensuring that their finds contribute to the archaeological record. Besides highlighting the importance of recording finds and avoiding digging through undisturbed archaeology, the Code also stresses the benefits of seeking archaeological help if something significant is discovered.

A number of finders and landowners, realising their discoveries are of interest to the wider community, have generously donated them to local museums in 2012. These include a Late Bronze Age axehead donated to Guildford Museum (SUR-7D5C15), an Iron Age harness fitting (ESS-342412) gifted to Colchester & Ipswich Museum Service, a Roman vessel escutcheon (IOW-1D56E0) acquired by the Isle of Wight Heritage Service, and an Anglo-Scandinavian strap-end donated to the Museum of Somerset (SOM-9ABAE0).

Likewise, the Treasure process allows for finders and landowners to waive their right to a reward, so that museums may acquire them at no or reduced cost. Examples include a Bronze Age Hoard from Tuxford, Nottinghamshire (PAS-1EB110) donated to Bassetlaw Museum, a Roman silver finger-ring from Micklefield, West Yorkshire (SWYOR-C0EE63), which was acquired by Leeds Museum, and an early medieval strap-end from Lyminge, Kent (KENT-7D2EC5), now in Maidstone Museum.

Bronze Age axehead (SUR-7D5C15) donated to Guildford Museum

Roman silver finger-ring from Micklefield, West Yorkshire (SWYOR-C0EE63)

Early medieval strap-end (SOM-9ABAE0) donated to the Museum of Somerset

Recording finds

The Portable Antiquities Scheme (PAS) exists to record archaeological finds found by the public in order to advance archaeological knowledge.

Although finds can be interesting in their own right, or may even have an aesthetic appeal, all finds must have a precise findspot in order to usefully add to archaeological knowledge. It is the findspot that places a find in the landscape, thus allowing archaeologists to understand more about how sites were settled and how people worked and lived in the past.

Prehistoric flint and stone (c. 500,000–2100 BC)
During 2012 some 5,384 worked flints and 15 stone axes were recorded by the PAS.

The most notable find is probably a mace head from Hammersmith, London (LON-8DC9F7), which dates between c. 2900 and 2100 BC, and is an object of great beauty. Also important was the discovery of 21 Lower Palaeolithic (c. 700,000–150,000 BC) handaxes. These were spread throughout southern and eastern England, but a find from a beach near Staithes, North Yorkshire (SUR-F6B593), is of particular interest as handaxes from the north of England, while not unknown, are rare. 22 flint axes of later date have been recorded, of which seven were of the 'tranchet' form typical of the Mesolithic period (c. 8300–4000 BC). In addition, there was one 'Thames pick' of similar date from Greenwich London (LON-8555B6), the remainder being polished axes from the Neolithic (c. 3500–2100 BC) period. It is interesting to see that nine of the Neolithic flint axes were either broken, or represented by fragments. A similar pattern existed with the Neolithic polished 'stone' (that is, non-flint) axes. Of 15, eight were broken (see SWYOR-F66988, from near Doncaster). These broken axes have their story to tell: were they damaged in use or deliberately broken as a ritual act?

The most attractive, and easily recognised, of flint implements are arrowheads, many of which show a remarkable delicacy and great care having been lavished on them. Over the last year the PAS has recorded 284 arrowheads or other 'points' (see SUR-4E9D16 & LEIC-1611D0). Among these were 301 Mesolithic 'microliths' dating from around 8300 to 4000 BC, although it must be recognised that this figure is likely to include some blades, which, while small, were not formal microliths. Neolithic flint leaf-shaped arrowheads were represented by 67 finds, in addition to which there were 73 barb-and-tanged arrowheads of early Bronze Age date (c. 2350–1500 BC). The other arrowheads consisted of a range of types, including examples of the graceful 'oblique' types typical of the later Neolithic period (2500–2100 BC). The most common flint tools found were 'scrapers' of various types and dates of which 1,707 were recorded. While many scrapers could not be described as things of beauty, some examples were carefully made and have a gem-like quality.

The PAS record also includes debris from flint working. This includes the 'cores' from which flakes and blades were removed ready for working to form finished tools, and waste chips which are the by-products of knapping. In the last year 148 cores were recorded and 937 blades, flakes and other pieces of 'debitage'. If treated statistically, it is possible to date this material but the material is also important as it shows where flint working was actually being carried out.

A notable proportion of flints recorded in 2012 (35%) has been placed on the PAS database by members of the public showing the enthusiasm of the amateur field-walkers who have traditionally carried out so much work in this area of study. The growing interest in community archaeology presents us with an

opportunity both to enhance our records and to involve more people in the active study of their heritage. It is recognised that much needs to be done to improve the quality of PAS records of flint and stone finds and work is in hand to provide a protocol which, it is hoped, will facilitate the recording process and improve the quality and utility of this data.

Kevin Leahy

Neolithic macehead from Hammersmith, London (LON-8DC9F7)

Palaeolithic handaxe from near Staithes, North Yorkshire (SUR-F6B593)

Mesolithic pick from Greenwich, London (LON-8555B6)

Neolithic arrowhead from Abinger, Surrey (SUR-4E9D16)

Bronze Age arrowhead from Thurcaston and Cropston, Leicestershire (LEIC-1611D0)

Lunula from Thwing, East Yorkshire
(DUR-A24C08)

Ornament from near Cholsey,
Oxfordshire (BERK-0D1A05)

Flat axe from Penllyn, Vale of Glamorgan
(NMGW-6A0686)

Bronze Age (c. 2350–700 BC)

1,302 Bronze Age finds were recorded in 2012, accounting for almost 2% of the total. Within this number are counted 46 Treasure cases, of which 28 were base-metal hoards or groups.

Precious metal finds reported Treasure are diverse and include *lunulae*, penannular rings, beads, bracelets and a pendant. Very noteworthy is a gold *lunula* (a flat gold crescentic ornament with spatulate terminals) of Early Bronze Age date. In Britain, these tend to have a western distribution and consequently that from Thwing, East Yorkshire (DUR-A24C08), falls outside the expected distribution. Also of similar date is a gold 'basket type' ornament, perhaps used as an ear-ring or worn in the hair, found near Cholsey, Oxfordshire (BERK-0D1A05). Ornaments of this type are usually associated with burials. Highly decorated, but unusually small, is a flat axe from Penllyn, Vale of Glamorgan (NMGW-6A0686), dated to between c. 2050 and c. 1700 BC. The axe is embellished with two vertical lines of inverted Vs on the lower blade, parallel incised vertical lines above these, and linear diagonals on the sides.

Copper-alloy items of personal adornment include two additional Middle Bronze Age Picardy pins, representing a valuable addition to the small dataset of pins of this type found in Britain. That found at Portbury, Avon (GLO-439E61), has a globular head with a hollow terminal that would have once held a stone. Below is a grooved swollen area and a small side loop.

Weapons of note include a very unusual copper-alloy sword hilt of Continental type, dating to the Late Bronze Age, which was found near Lewes, East Sussex (SUSS-761CD0). The most relevant parallel is a complete sword from Chertsey, Surrey. The quality and complexity of these swords is certainly in contrast to the more standardised Ewart Park type current in Britain and it is most likely that this fragment was imported as scrap and as such lost its value when it crossed the Channel.

The style of a single-looped spearhead (SWYOR-FD8F64) found at Threshfield, North Yorkshire, dating from the Late Bronze Age to Early Iron Age, is best paralleled against the leaf-shaped spearhead of the Ewart Park phase. However the presence of a single side loop is unusual with very few others known.

Base-metal hoards found in 2012 cover all periods of the Bronze Age. Two Early Bronze Age copper-alloy flat axes were found in the Hereford area, Herefordshire (NMGW-6DC691), both broken in antiquity. Five Middle Bronze Age hoards were recorded, including the particularly important find of a pair of two-piece looped palstave mounds from Hempnall, Norfolk (SF-2D55E2). A very important Middle Bronze Age hoard from near Wylye, Wiltshire (WILT-038191), consists of 43 copper-alloy objects, including 31 'ornaments', one spirally twisted torc, one ribbed bracelet, three finger-rings (around the torc fragment), and one annular arm-ring, as well as 15 fragments of possible torcs, arm-rings and a bracelet in a second deposit; as

Sword hilt from near Lewes, East Sussex
(SUSS-761CD0)

Palstave axe moulds from Hempnall,
Norfolk (SF-2D55E2)

Spearhead from Threshfield, North
Yorkshire (SWYOR-FD8F64)

such it is one of the largest hoards of its type yet discovered. In addition 19 Late Bronze Age base-metal hoards were recorded. Two hoards from Hindon (WILT-9439A7) and Tisbury (WILT-E8DA70) are significant additions to our corpus of metalwork of this date from hoard contexts. While Tisbury is a multi-period hoard which contains artefacts spanning a date range of over a millennium, Hindon is one of only three hoards from Britain that included both bronze and iron metalwork, the other two being Melksham, Wiltshire, and Llyn Fawr, Glamorgan.

Sally Worrell

Iron Age (c. 800 BC–AD 43)

Iron Age finds are comparatively rare, accounting for only 1,836 object recorded in 2012; of these, 396 were coins.

Important finds included a Late Iron Age helmet from near Canterbury, Kent (KENT-FA8E56), used to hold a human cremation. It was found with a Nauheim-type brooch which is likely to have once fastened a bag containing the bones. Only a handful of such helmets are known from Britain, and none has been used for burial in this way. This example was probably made on the continent, though it is not certain how it came to be in a grave in Kent. Perhaps it returned with a mercenary involved in wars against the Romans in Gaul (modern-day France).

As in previous years, a significant quantity of Iron Age brooches was recorded, including a number of La Tène brooches; four both from the Eastern region and the Midlands, three from the South East and seven from the South West (six of which came from Wiltshire). A very rare Early Iron Age Late Hallstatt brooch, commonly referred to as a Boat or Leech type, was found near Wroxeter, Shropshire (HESH-F631B8), and is one of the few to be recorded from England. Three Middle Iron Age brooches were also discovered. An unusual elaborately decorated brooch from near Devizes, Wiltshire (WILT-D73D25), shows La Tène I elements such as an upturned foot and catchplate, openwork design and possible coral inlay.

The increase in the quantity and range of material culture that was in use in the Late Iron Age is very evident. Late Iron Age to early Roman brooches (158 examples) massively outnumbered La Tène I and II examples. The range of other personal adornment also diversified during this period. The ten beads in glass and copper alloy discovered this year highlight the importance of such items for enhancing personal appearance. Of particular note is the blue glass bead with spirals of white glass found at Tower Hamlets, Greater London (LON-041951).

Iron Age pins are not common finds and five ring-headed examples were recorded in 2012. Their primary function was to fasten loose-weave garments, but they may also have been used in the hair. Most are of the swan-neck or ring-headed form and have a wide date range. However, the copper-alloy Plastic Style pin from Ropley, Hampshire (HAMP-C319B7), is particularly rare. This object, of 3rd-century BC date, is incomplete but the large spherical, knobbed head with multiple motif cast decoration survives. There are no known parallels from Britain and although Irish examples with such decoration are documented, bulbous heads of this type are unknown.

Other rare artefacts include a complete Late Iron Age sword-belt fitting from Kents Cavern, Cumbria (LANCUM-30FA31). This has a combination of moulded decoration and petal motifs, typical of boss-style metal work, and in common with forms of Late Iron Age or early Roman dumbbell mounts and toggles which are commonly found in the north of England. A bucket

mount from near Wallingford, Oxfordshire (BERK-783763), is also rare since it is one of only a handful to exhibit human representations. Still attached to it is some of the thin sheet copper alloy of the vessel to which it was once fixed.

Among the Iron Age coins recorded with the PAS in 2012 is a hoard of 12 Late Iron Age potins, recovered, unusually, from the Thames foreshore at Putney (LON-AB60E2). These are of a type produced and used in northern Kent in the late 1st century BC and early 1st century AD. The findspot and the types of coins found suggest that it may be related to the Putney Bridge Hoard found in the 1970s.

The Iron Age coin data continued to be used as a research tool. Andy Bevan (University College London) has recently investigated the distribution patterns of Iron Age coinage recorded by the PAS as a case-study in an article published in *Antiquity*: 86 (2012).

Sally Worrell & Philippa Walton

Helmet from near Canterbury, Kent (KENT-FA8E56)

Brooch from near Devizes, Wiltshire (WILT-D73D25)

Pin from Ropley, Hampshire (HAMP-C319B7)

Sword-belt fitting from Kents Cavern, Cumbria (LANCUM-30FA31)

Bead from Tower Hamlets, London (LON-041951)

Potin from London (LON-AB60E2)

Bucket mount from near Wallingford, Oxfordshire (BERK-783763)

Roman (c. AD 43–410)

Roman material consistently accounts for the highest proportion of finds recorded by the PAS, numbering 29,013 items in 2012; over 40% of the total. Included are 12,436 Roman coins, bringing the total on the PAS database to 193,198.

Objects associated with religious beliefs and practices recorded include 36 figurines, and 15 miniature objects. Of particular note is a figurine of Capricorn found at Burrington, Somerset (SWYOR-29B362). Capricorn, a mythical creature that was half goat and half fish, was the tenth sign of the zodiac and the emblem of Legion II Augusta, which was based at Caerleon, Newport. It was also the birth sign of the emperor Augustus (r. 31 BC–AD 14), under whom the unit was formed and after whom it was named. This figurine has a pointed 'goatee' beard, and the tail has moulded ribs separating the three fins, and moulded rippled lines representing the structure of the fins. The figurine has no evidence of attachment, but it does balance upright on his elbows and chest and it is possible that a globe was held between the feet.

Also important is a figurine of Mars from Stanstead Abbots, Hertfordshire (BH-247012). He wears a Corinthian helmet, a square-necked cuirass, a vertically segmented kilt and has a military cloak draped over his left shoulder. Another extremely significant figurine of Mars was discovered at Wrawby, Lincolnshire (LIN-A14AA2). This bearded Mars wears a muscled cuirass, a kilt and greaves and holds an upward-pointing sword and scabbard in his right hand.

Sally Worrell (Finds Adviser) has examined the distribution of 'Military Objects Recorded with the Portable Antiquities Scheme' and published in *Britannia* 43 (2012). Although this data is only a fraction of all Roman finds reported it nonetheless represents a substantial addition of militaria to the known corpus – 2,202 objects in all. Weapons include swords, spears and daggers etc., but also recorded are chapes, armour (including helmets), vehicle fittings (specifically those in the form of an eagle's head), buckles, plates and strap-ends; see for example an elaborate 'bar and keyhole' strap-fastener found at Owslebury, Hampshire (HAMP-F92224). There are also *phalerae*, harness elements, mounts of various types, fasteners, pendants, strap-ends, buckles, baldrics, as well as spurs. The highest numbers are found in the eastern counties of England, from Yorkshire to Essex, where cultivated land is fruitful for detecting. Also productive are the central and north-east Midlands. With the exception of an arc drawn from the Solent to the Severn few are reported in the coastal counties of southern England or from upland northern and western parts of the country.

This year's discoveries include some significant inscriptions. Building work near the auxiliary fort at Old Carlisle revealed reused fragments of funerary monuments, including a relief-carved bull, a pine cone finial and two fragments of epitaphs. One is a multiple memorial of seven or more individuals, including adults and at least one child, the other a single

individual (LANCUM-273C82). The term *'macul…'* in the latter derives from the unusual commemorative phrase *'sine ulla macula'* (lived a blameless life). The partly preserved text on a votive plaque found on the foreshore at Wandsworth (LON-890B55) adds to our understanding of Roman religion in London. It records the fulfilment of a vow to a goddess of uncertain identity, most likely *Bona Dea*, a deity rarely met outside Italy, and to the *numina* of the emperors. The dedicator was from *Pannonia* (Hungary).

30 seal-boxes were recorded in 2012 including square, leaf-shaped, lozenge-shaped, rectangular, circular and oval examples. Seal-boxes are generally difficult to date due to their use across the Roman period but most probably date to the 2nd or 3rd centuries AD. However, the discovery of a complete leaf-shaped seal-box (decorated with red, blue and white millefiori glass inlaid into a red enamel background) found at Wood Burcote, Northamptonshire (NARC-B9DE37), offers new chronological information. Within this box was found a Trajan *denarius* (NARC-B9F672), which means that the seal box must have been buried after AD 117.

Coins aside, brooches are the most abundant Roman object type recorded with the PAS. 2,073 Romano-British brooches, plus 168 Late Iron Age to early Roman brooches, were recorded this year. Of the 136 zoomorphic plate brooches recorded, 118 were found at Bosworth, Leicestershire (LEIC-259405 etc.), and represent the largest assemblage of horse-and-rider brooches

Mars figurine from Wrawby, Lincolnshire (LIN-A14AA2)

Strap-fastener from Owslebury, Hampshire (HAMP-F92224)

Memorial fragment from Old Carlisle, Cumbria (LANCUM-273C82)

Seal box and *denarius* of Trajan from Wood Burcote, Northamptonshire (NARC-B9DE37 & -B9F672)

Zoomorphic brooch from Downton, Wiltshire (WILT-5D5B17)

Capricorn figurine from Burrington, Somerset (SWYOR-29B362)

recorded from a single site in Britain. In addition, there are three particularly interesting zoomorphic brooches: an example depicting a boar from Downton, Wiltshire (WILT-5D5B17), a fragment of a zoomorphic brooch in the form of a horse from Strood, Kent (PUBLIC-7CEFB8), and a complete example showing a stag from Teversham, Cambridgeshire (SF-98F782).

Rare finds include a miniature garnet head of Socrates, found eyes-only at Brampton, Norfolk (NMS-8B3A40). It is a characteristic portrait of the philosopher, with a bald pate and round face with characteristically prominent cheekbones and brow, and a short stubby nose. Portraits of philosophers were a popular subject on engraved gems (*intaglios* and *cameos*) made from precious and semi-precious stones, but no parallel is known from this country. Almost as rare is a bronze *balsamarium* from Petham, Kent (KENT-7D72A7), a 5cm-high near-complete perfume container bearing a frieze depicting the revels of Bacchus. The drinking party include a hairy-shanked satyr carrying an amphora, two musicians and a beautiful youth with a wine mixing bowl on his shoulders.

Sam Moorhead (Finds Adviser) and Philippa Walton (Deputy Finds Adviser) have continued to visit metal-detecting clubs to give talks highlighting the importance of showing FLOs all coins they find, even 'grots'. As a result, numerous large assemblages have been brought in for identification, particularly in North and East Yorkshire. Amongst these coins are some individual pieces of importance, such a *sestertius* of Trajan from near Milton Keynes, Buckinghamshire (NARC-CE14A4). The coin is exceptionally well preserved, with its reverse depicting the emperor with Armenia, the Euphrates and the Tigris reclining at his feet.

The most notable hoard found in this period was the St Albans Hoard (BH-D67AF4), which contained 159 gold *solidi* dating between AD 373 and 408. It is not only the second largest hoard of *solidi* ever found in this country, but it can also be argued that it was buried right at the moment when Britain ceased to be part of the Roman Empire, c. AD 409–410.

Although such finds are spectacular, it is really the number and geographical spread of the coins recorded by the PAS that is important as they continue to transform our understanding of how people used money in Roman Britain. In the past year, several pieces of research have been published which make use of the PAS data, most notably a study of the potential of the Roman coin data recorded by the PAS up until 2008 (see Philippa Walton, *Rethinking Roman Britain: Coinage and Archaeology*) and the distribution and usage of late Roman silver coinage, known as *siliquae* (see Roger Bland, Sam Moorhead and Philippa Walton, 'Finds of Late Roman Silver Coins from Britain: the contribution of the Portable Antiquities Scheme' in Fraser Hunter and Kenneth Painter (eds.), *Late Roman Silver: the Traprain treasure in context* (2013, 117-66).

Sally Worrell & Philippa Walton

Stag brooch from Teversham, Cambridgeshire (SF-98F782)

Socrates head from Brampton, Norfolk (NMS-8B3A40)

Sestertius of Trajan from near Milton Keynes, Buckinghamshire (NARC-CE14A4)

The St Albans Hoard (BH-D67AF4)

Balsamarium from Pelham, Kent (KENT-7D72A7)

Early medieval (c. 410–1066)

2,319 early medieval objects were recorded this year, amounting to just over 3% of the total, but including some very important discoveries.

Two very unusual 5th- or 6th-century brooches from central southern England have seen PAS staff combing Europe for parallels. The first is from Kingston Bagpuize, Oxfordshire (SUR-D8E807), and has some likeness to two other brooches, one from Mucking, Essex (but thought to have been made in central or southern Germany), and the other from Martigny, Switzerland. The other brooch, from Marlborough, Wiltshire (WILT-228398), although apparently in the tradition of Germanic 5th- and 6th-century brooches, appears to be unique.

An object consisting of two flimsy metal discs, one made from silver and one from copper alloy, was found in the Stone area, Buckinghamshire (BUC-2FFF01), and turned out to be part of a rare 7th-century quoit brooch. The discs had been soldered together, and both had a pin hole and notch; the silver upper plate also had a bent-up stop to either side of the notch. The silver upper plate has lightly engraved decoration of a ring of mushroom shapes imitating contemporary cloisonné garnet designs on disc brooches, allowing the date to be established. It joins two other 7th-century quoit brooches, both set with cabochon-cut garnets, one from Castle Bytham, Lincolnshire, and the other from Barrington, Cambridgeshire.

Two gold socketed terminals of uncertain function were reported in 2012, from Dymock, Gloucestershire (GLO-D79602), and the York area (SWYOR-69C958). They can be compared with three earlier finds, from Aughton, South Yorkshire (SWYOR-C75C64), the Bidford-on-Avon area, Warwickshire (WAW-92EB56), and Sutton-on-the-Forest, North Yorkshire (YORYM-3F57C3). The Dymock and Bidford-on-Avon objects are small, only 15–20mm long, and are modelled in the round; they should perhaps be regarded as socketed pinheads. The 'York area' and Aughton objects are 27mm and 31mm in length, and have flat, undecorated reverses. Both in size and shape they are comparable in size to the famous Bowleaze Cove, Warminster and Minster Lovell jewels, and it is a tantalising possibility that these may be the *æstels* mentioned in King Alfred's letter accompanying his translation of *Gregory's Pastoral Care*, which went out to all his bishops. The Sutton-on-the-Forest object is a little different, as it is in the shape of an animal head rather like that on the Alfred Jewel, but with two sockets where the ears should be and a loop for the nose; it hints that there may have been several differing functions for these formally similar objects.

Items of Irish origin include a circular plaque with champlevé enamel and millefiori glass, probably of 9th-century date, found in Colyton, Devon (DEV-7AE0B6). This was probably set into a larger object such as a crosier or processional cross. A remarkable Irish mount, probably found in Barham, Kent (FAKL-B87573), shows the scene of Jacob wrestling with the

Angel. This motif also occurs on the early 10th-century Market Cross at Kells, Ireland, and it seems likely that the mount is of similar date. It is generally assumed that the majority of these came to England as a result of Viking activity. More specifically Scandinavian is a D-shaped object of uncertain function with well-made Jellinge-style decoration on both faces, found in Geddington, Northamptonshire (NARC-D16C22). The form of the Jellinge-style animal is very close to that known from disc brooches and pendants, apart from a missing foreleg. The function of the object is uncertain, as no early medieval parallel has yet been found; it bears some similarity to cast copper-alloy end-caps from 16th-century knives (e.g. DOR-55A6C1 & SWYOR-5D26F3, both inscribed '1526').

The finds of early medieval coinage also continued strongly in 2012 with 331 recorded. An interesting example from the 7th century is a gold shilling, or *thrymsa*, from near Harrogate, North Yorkshire (SWYOR-62B752), which fits into the small but well-known 'York group' of shillings. The design indicates it may be the earliest yet known from the sequence, and more fully places the series within the remits of the style of 7th-century southern English coinage. Alongside this, two 9th-century Carolingian silver *deniers* are of note, one from Great Dunham, Norfolk (NMS-721CC8), the other Weedon, Buckinghamshire (BUC-C38841). Finds of continental coinage of the 9th century are rare and these make important additions to the known finds.

Helen Geake & John Naylor

Harness pendant from Bridlington, East Yorkshire (YORYM-FE9B81)

Harness pendant from Wookey, Somerset (SOM-04AC12)

Harness pendant from Chirton, Wiltshire (WILT-D656F5)

Medieval (c. 1066–1500)

A further 15,794 medieval finds were recorded in 2012, including 5,322 coins, 1,779 buckles, 319 spindle whorls and 63 pilgrim badges. These finds, no matter how corroded or incomplete, all help paint a picture of life in the Middle Ages.

Harness pendants are always interesting, coming in a variety of forms with 'shield-shaped' types most ubiquitous. The arms upon them can differ considerably, and be hard (even impossible) to decipher; this is especially true when the enamelling is missing, with colour being a fundamental part of heraldry. The royal arms of England (1198–1340), once belonging to horses of the king's household (YORYM-FE9B81 & NCL-35A372), are surprisingly common. An example found at Wookey, Somerset (SOM-04AC12), is an unusual variant with the cadence mark of an eldest son – blue label of three points – in this case probably for Edward II (heir apparent 1284–1307) and Edward III (heir apparent 1312–1327). Shield-shaped harness pendants with the arms of aristocratic families are also known, including a pendant from near Martock, Somerset (SOM-3F82B7), decorated with alternating red and silver (white) diagonal bands of the Talbots; another from near Thurston, Derbyshire (DENO-78E931), shows three gold stirrups on a blue background which is the arms of the Giffards; and from Chirton, Wiltshire (WILT-D656F5), a harness pendant with the armoury of six gold cross-crosslets divided by a gold band on a red background, identified as the powerful Beauchamp family.

Reflecting changes in fashion as well as personal style are brooches, made in a variety of metals with significant differences in form and design. Of these, annular brooches are discovered in significant numbers, with at least 155 of medieval date recorded in 2012. The simplest form are those with plain frames (see LVPL-CEB425 & ESS-FE42C7), usually made of copper alloy or iron but precious metal examples are also known (see SUR-F98205). Others are notably ornate, including a 13th- or 14th-century example from York (LON-5BC076), which has a hexagonal frame embellished with rounded knops, pellets and drilled holes, and a rather impressive gold example from Chiddingstone, Kent (SUR-A704D2), of similar date, which has a protruding pair of hands, a setting with stone as well as an inscribed frame. The exact meaning of the Chiddingstone brooch's inscription is unclear, but others can be read, including on an example from near Snape, North Yorkshire (DUR-17DE65), inscribed +IESVS : NAZA (contraction of 'Jesus of Nazareth') which may have had apotropaic properties. Brooches made from coins are another intriguing group, with a few found every year, including an annular brooch made from a Henry III penny, found at Hartburn, Northumberland (NCL-2F38F4).

Most coins found are not modified at all and formed the currency of the country. Of the 5,322 recovered in 2012 the majority are of perfectly common English issues or are from places typically known in the English corpus, such as the Low Countries, France, Spain and Venice. Inevitably some rarities and oddities were recorded. These include the rare find of a

Brooch from York (LON-5BC076)

Brooch from Chiddingstone, Kent (SUR-A704D2)

Brooch made from a coin found at Hartburn, Northumberland (NCL-2F38F4)

Denar of the Archbishop of Cologne from Ropley, Hampshire (SUR-269403)

Boar brooch of Richard III from near the Tower of London (LON-A33FF5)

gold angel of Richard III (r. 1483–1485) found, like the man himself, in Leicestershire (LEIC-E209C1). Alongside this, foreign coins from outside the usual areas included a *denar* of Phillip von Heinsberg, Archbishop of Cologne (r. 1167–1191) from Ropley, Hampshire (SUR-269403), and a papal *terzo di grosso* of Paul II (r. 1464–1471) minted in Acona, Italy, found in Bossal, North Yorkshire (LVPL-6A35B6).

693 mounts were recorded in 2012, with a copper-alloy example in the form of a boar – with a crown as a collar – being of particular note (LON-A33FF5). The boar was the emblem of Richard III, famously suspected of the murder of the Princes in the Tower – his young nephews, Edward V (r. 1483) and Richard of Gloucester. It is therefore intriguing that this item was found on the Thames foreshore in the vicinity of the Tower of London. The mount is very similar to a number of boar badges which have been reported as Treasure over the past few years, including half of one from Lincolnshire (DENO-F35022) this year. These badges – several silver gilt – were made for followers of Richard III, as Duke of Gloucester, during the Wars of the Roses, and were ordered for use at his coronation (6 July 1483) and also for the investiture of his son, Edward, as Prince of Wales (24 August 1483).

Michael Lewis & John Naylor

Post-medieval (c. 1500–present)

FLOs are necessarily selective in recording post-1700 material. Nonetheless, post-medieval and modern finds accounted for just under a quarter of all finds recorded (16,373) in 2012 – by no means an insignificant quantity.

Toys, of which 106 post-medieval examples were recorded this year, offer an intriguing insight into childhood of the past. More than half of these toys are made of lead alloy. Boys' toys – like nowadays, not necessarily for children! – include a horse-and-rider figurine, dating to the 17th or 18th century, from the Thames foreshore at Southwark, London (SUR-A98F83). The object has casting on both sides (which is not always the case) revealing a degree of detailing, such as the stars on the rider's long buttoned coat, and the horse's decorative saddle. Guns (see BH-A8CF56) and cannon (see SWYOR-080232) also feature in significant numbers, as do buzz-wheels (or whirligigs). Buzz-wheels are simple toys, worked from metal-discs, old coins and tokens, which are then serrated and pierced with (normally) two holes. This allowed them to be spun on a string, thus creating a buzzing noise. Highlighted here is an example from the Isle of Wight (IOW-41FB50) made from a token.

Also found are miniature household items, possibly for play with dolls, including a number of plates, many which have floral decoration on them (see SUR-A5AFE1); of particular note are the intricate floral motifs apparent on a rather splendid example from the Thames foreshore at Southwark (LON-06CD41). Toy dishes are also found, such as that discovered at Great Ellingham, Norfolk (NMS-EABFA2). This is embellished with a bird walking, perhaps representing the item to be devoured. Found in London was a lead-alloy dripping pan (LON-652B33), dating to the mid-17th century, which has upon its cooking surface a floral design, similar to that found on some plates noted earlier. Interesting because it came to light during the renovation of a mid-19th-century house at Woolpit, Suffolk

(FAHG-C743A5), is a toy gridiron, complete with fish, which the recorder suggest might alter the accepted dating of such items. Also discovered in 2012 were two frying pans of differing form, but both with long handles, one from Zeals, Wiltshire (WILT-E20CC5), and another from Tower Hamlets, London (LON-A6B625). The latter has the maker's mark IDQ, which appears to date the object to c. 1636–1646.

The number of dress-hooks known has substantially increased in recent years, thanks to the efforts of metal-detectorists. Examples found vary considerably in shape and decoration, of which those of trefoil form being relatively common in both precious and base metal. Typical of those made of copper alloy is a dress-hook from Belton, Lincolnshire (LVPL-6F6575). Like others it shows signs of once being gilded, as are many silver examples, such as one from Castle Hedingham, Essex (ESS-DB2074). The Castle Hedingham dress-hook is interesting since it lacks its central flower, and therefore the hole through which this element was once attached is clearly visible; a rather nice complete example, which is also gilded, was found at Chichester, West Sussex (HAMP-F59475). It is noteworthy that although the fashion was to make dress-hooks appear golden, few were actually manufactured using gold. A rare example made from gold was discovered at Foulsham, Norfolk (NMS-DF72E6), but is otherwise not particularly impressive, being of a simple rectangular design. Indeed, its lack of decoration and the irregular edge of the attachment hole suggests it may be unfinished, and therefore (like many finds) is more significant that it first seems.

Michael Lewis

Horse and rider figurine from Southwark, London (SUR-A98F83)

Toy gun from Barley, Hertfordshire (BH-A8CF56)

Buzz-wheel made from a token found on the Isle of Wight (IOW-41FB50)

Toy plate from Southwark, London (LON-06CD41)

Toy gridiron found at Woolpit, Suffolk (FAHG-C743A5)

Dress hook from Foulsham, Norfolk (NMS-DF72E6)

Dress hook from Castle Hedingham, Essex (ESS-DB2074)

Toy frying pan from Southwark,
London (LON-652B33)

Statistics

The Portable Antiquities Scheme (PAS) website has further developed over the last year, with the introduction of new technology to make it more robust and increase usability. Website usage has again increased, with over half a million unique visitors using them within 2012, a significant increase over a five-year period.

Year	Unique visitors	Number of visits	Page requests	Average page views per visit
2007	160,847	306,124	3,762,182	12
2008	184,995	336,937	3,771,070	11
2009	158,266	306,568	3,560,941	12
2010	210,592	371,308	4,233,094	11
2011	463,160	677,965	4,485,956	6.62
2012	543,534	800,080	4,836,783	6.05

The software used to build the PAS website has been made available as OpenSource code via GitHub, which allows third parties to adapt and reuse some of the modules that have been written by Dan Pett (ICT Adviser). In 2013 the website architecture will be moving to a load-balanced cluster, which (it is hoped) will increase its reliability even further. Public recording and interaction is still on the increase, with over 14,000 finds now having been recorded. This success is one of the drivers for the Heritage Lottery Fund (HLF)-funded development of a project to increase opportunities for volunteers to work with the PAS. Also many individuals are now helping to improve records through submitting error reports.

During 2012, Dan Pett participated in New York and Drew Universities' 'Linked Ancient World Data Institute' which proved to be a catalyst for the PAS providing data for the Pelagios project and implementing first steps towards becoming a 'Linked Open Data' resource. The website now provides an interface to a wide variety of third-party resources, which serve to enrich the user experience. Scheduled for 2013 in concordance with the Ordnance Survey Linked Data system, further interface and search engine improvements will hopefully increase usage of the rich resources that the PAS now curates online, thus widening its impact in the research sector.

County	PAS records 2012	PAS finds 2012	Treasure cases 2012
Avon	536	593	10
Bedfordshire	695	698	15
Berkshire	566	615	12
Buckinghamshire	1,309	1,715	18
Cambridgeshire	1,697	2,567	28
Cheshire	790	793	6
Cleveland	33	33	2
Cornwall	1,456	1,784	4
Cumbria	403	539	9
Derbyshire	117	215	12
Devon	336	338	19
Dorset	496	601	27
Durham	885	902	1
Essex	1,192	1,432	67
Gloucestershire	886	2,330	19
Hampshire	2,205	2,424	19
Herefordshire	371	612	11
Hertfordshire	837	1,031	13
Isle of Wight	1,740	1,921	24
Isles of Scilly	2	57	0
Kent	1,527	2,855	52
Lancashire	242	338	6
Leicestershire	1,528	1,595	16
Lincolnshire	4,340	5,042	62
Lincolnshire, NE	78	78	0
Lincolnshire, N	1,173	1,907	5
London, Gtr	522	545	11
Manchester, Gtr	15	19	0
Merseyside	57	57	0
Norfolk	6,051	7,324	123
Northamptonshire	1,273	1,327	14
Northumberland	259	349	8
Nottinghamshire	809	953	11
Oxfordshire	1,909	3,099	19
Rutland	166	210	1
Shropshire	553	639	7
Somerset	1,169	1,824	33
Staffordshire	440	956	18
Suffolk	5,137	6,694	62
Surrey	899	1,113	8
Sussex, E	703	738	20
Sussex, W	652	697	23
Tyne & Wear	20	129	2
Warwickshire	1,131	1,289	19
West Midlands	25	25	0
Wiltshire	2,038	3,105	34
Worcestershire	360	369	5
Yorkshire, E	2,313	2,537	22
Yorkshire, N	2,882	3,275	54
Yorkshire, S	405	883	6
Yorkshire, W	235	256	4
Other	1,489	2,194	0
Wales	247	282	26
Northern Ireland	0	0	3
Total	**57,199**	**73,903**	**990**

In 2012 the most productive areas of the country for PAS finds were Norfolk, Suffolk and Lincolnshire. The most productive areas for Treasure were Norfolk, Lincolnshire and Essex.

	Stone Age	Bronze Age	Iron Age	Roman	Early Medieval	Medieval	Post-Medieval	Total
2012	5,162	1,302	1,936	29,010	2,319	15,794	16,373	71,896
%	7.18	1.81	2.69	40.35	3.23	21.97	22.77	

Roman finds account for the highest proportion of those recorded, followed by post-medieval and then medieval. A significant number of stone tools and implements were also logged onto the PAS database.

	No NGR	4 fig	6 fig	8 fig	10 fig	12 fig	14 fig
2012	6,031	932	23,687	24,181	19,009	56	7
%	8.16	1.26	32.05	32.72	25.72	0.08	0.01

Year	Average (%)
1997–1999	56
1999–2000	60
2000–2001	68
2001–2003	70
2003–2004	73
2004–2005	75
2005–2006	86
2006	90
2007	90
2008	89
2009	90
2010	88
2011	91
2012	91

As in 2011, 91% of finds are recorded to at least a 6-figure NGR (National Grid Reference). This level of findspot precision is crucial if PAS data is to be useful to archaeology.

	Metal-detecting	Chance find while metal-detecting	Field-walking	Other chance find/gardening	Controlled archaeological investigation	Building/agricultural work
2012	64,033	2,772	4,596	1,788	519	168
%	86.68	3.75	6.22	2.42	0.7	0.23

More than 90% of finds recorded with the PAS were found by metal-detector users, either while using their machines or spotted 'eyes only'. Almost 92% of Treasure cases were discovered
by detectorists.

Land use	2012	%
Cultivated land	48,231	92.12
Grassland/heathland	1,964	3.75
Woodland	229	0.44
Coastland	303	0.58
Open fresh water	583	1.11
Wetland	6	0.01
Other	1,042	1.99

More than 92% of finds found in 2012 were discovered on cultivated land, where they are vulnerable to agricultural damage and natural and artificial corrosion processes.

Michael Lewis, Dan Pett, Ian Richardson & Emma Traherne.
Image manipulation: Janina Parol
Design: Fenella Russell

Finds Liaison Officers' locations
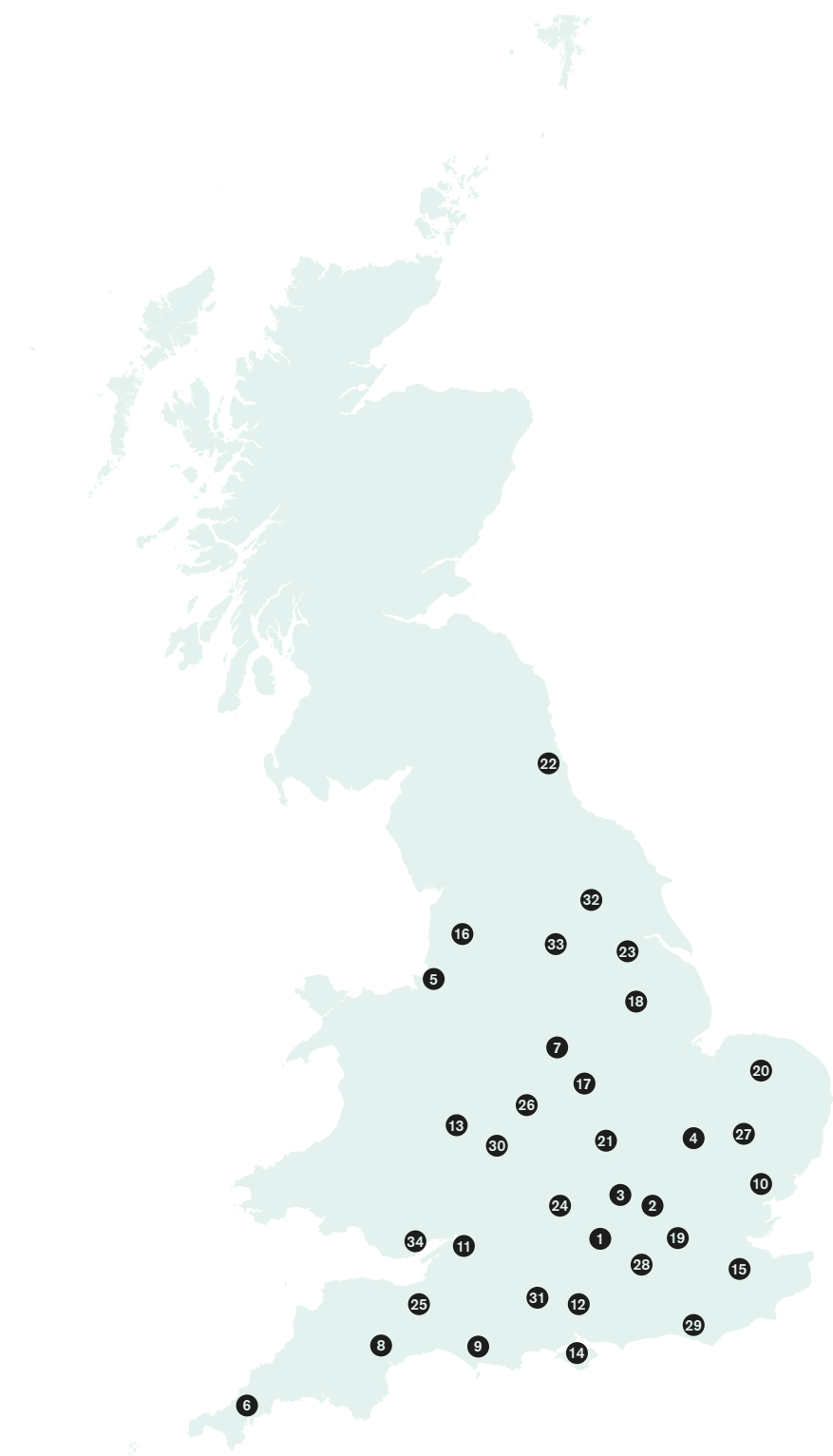
38
Finds Liaison Officers

197
Metal-detecting clubs

843
Metal-detecting club meetings attended in 2011

33,090
People attending outreach events in 2011

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