

ROMAN COINS RECORDED ON THE PORTABLE ANTIQUITIES SCHEME DATABASE FROM HAMPSHIRE AND USING ROMAN COINS AS A TOOL FOR RESEARCH

By RICHARD HENRY

ABSTRACT

Over 15,000 Roman coins from Hampshire have been recorded by the Portable Antiquities Scheme (PAS) since its inception in 1997. This article builds on recent research on Roman coins and hoards in Wiltshire, Hampshire and Dorset. It defines methodologies for the analysis of Roman coinage, the value of considering coinage within its wider landscape context and how to interpret PAS data when undertaking research using metal detected assemblages. Using the case studies of Roman coinage and hoards in the 1st, 3rd and 4th centuries; the analysis highlights the value of PAS data when undertaking archaeological research when used in conjunction with other datasets such as the Hampshire Historic Environment Record and the Roman Rural Settlement Project.

INTRODUCTION

This paper builds on recent research into the numismatic dataset available on the Portable Antiquities Scheme database (PAS) in Wiltshire, west Hampshire, Dorset and the south west by the author (Henry & Ellis-Schön 2017; Henry 2018; Henry & Algar 2018; Henry *et al.* 2019; Smith & Henry 2020; Henry *forthcoming*; Sanna & Henry *forthcoming*). The research highlighted a need to for a detailed analysis and discussion of the Roman coins recorded on the PAS from Hampshire. The paper will also provide a methodology for similar research building on a previous paper on using the Wiltshire Historic Environment Record (HER) as a tool for research, allowing others to undertake similar analysis and research in Hampshire using the Hampshire HER and other datasets.

Since 1997, Finds Liaison Officers, Finds

Liaison Assistants and volunteers have been working with metal detectorists and others to record archaeological objects from England and Wales. Hampshire was one of the pilot areas for the PAS. From 1997 until the end of 2018 14,943 Roman coins have been recorded onto the database, of which 10,439 can be assigned a Reece period and 11,073 to an ABCDE period (see below). The dataset has increased by over 500 per cent since the pioneering work published by Walton (2012) looking at Roman coins recorded on the PAS database and comparative sites. The significant increase in the dataset allows for a new evaluation of the coinage from Hampshire and discussion of themes from the results of the analysis.

ROMAN HAMPSHIRE

Due to the nature of metal detecting focusing on rural areas, this paper will concentrate on what would be considered rural sites although there will be discussion of larger settlements and major centres within the county. To understand the dataset, we need to consider the wider landscape and the general themes that will be visible within the numismatic dataset and the wider context.

The majority of Roman Hampshire consisted swathes of rural settlement, roadside settlements, small towns and the major centres of *Venta Belgarum* (Winchester) and *Calleva Atrebatum* (Silchester). The Roman conquest in AD 43 resulted in major changes on many rural settlements yet traditional lifestyles continued (Cunliffe 2000; Cunliffe 2008). The conquest led to access to new markets which allowed for greater imports. In the first 100 years,

Romanisation and social change was rapid in the urban centres but there was far less evidence for change in the countryside (Cunliffe 2000, 177). Small towns are generally interpreted as being the result of economic stimulus of traffic along the new road network (although the mechanisms by which this occurs are seldom explored). Small towns fulfil the role of a local market centre alongside other economic, social and cultural functions.

The annexation of Britain by the Roman Empire introduced several innovations to rural landscapes of Hampshire developing the conditions for more regular agricultural surpluses (Hingley 1989). The Romans also encouraged the development of market exchange and the use of coinage (Hingley 1989). Rural sites appear to be on the periphery of coin use until the mid-2nd century AD and the most significant early peak is in the Antonine period (Reece period 7). There was a significant influx of coinage in the 150's and from this point it appears that coin use expanded significantly in rural regions of Roman Britain (Moorhead 2010, 157).

There is significant evidence to suggest that many Wessex downland settlements of the late Roman period enjoyed a high standard of living, and had access to the coin using economy and high quality materials (Moorhead 2001; Cunliffe 2008; Brindle 2014). The maximum exploitation of the agrarian potential for the area as a whole appears to be realised only in the late Roman period (Fowler 2000, 229). Moorhead (2001) suggests that the Roman road running from the south coast, through Hampshire, to the Mendips may have acted as a distribution route for coinage.

The period AD 250–350 was one of considerable prosperity in the countryside, with social display through ostentation and differences in wealth and status at rural sites in evidence (Cunliffe 2008, 179). The presence of villas and local centres indicates economic growth within the region based on a more intensive method of agricultural production, surplus creation and the development of exchange and consumption (Hingley 1989, 121; Cunliffe 2008, 183). The 4th century witnesses a dramatic intensification of agricultural and settlement activity on much of the chalk land

(Fowler 2000, 228). This is due to a number of factors including extensive manuring and advances in plough technology including iron ploughshares and a mouldboard (Fowler 2000; Rees 2011). These developments lead to the further exploitation of heavier soils and changed agricultural techniques allowing the cultivation of any soil (Rees 2011, 94).

The end of the 4th century was a period of transition and there is significant variation in the history of different settlements. Not every long-established farm became a villa, some continued throughout the 3rd and 4th centuries with few masonry buildings of any kind. Many villas show evidence of decline in this period although non-villa settlement sites may have prospered later into the period suggesting they may have fared better than the villas in the uncertainty of the late 4th century (Cunliffe 2008, 187). There is a marked increase in investment on agricultural infrastructure in the Roman period, this investment does not just point to economic change but also a wider emphasis on the display of wealth (Van der Veen 2014).

THE ANALYSIS OF ROMAN COINS ON THE PAS DATABASE

PAS data is useful for site characterisation along with the study of chronological, functional, economic, socio-political and religious roles of sites based on site morphology and artefact assemblages (Brindle 2014). Yet it has to be acknowledged that the coins and artefacts recorded with the PAS have been removed from their original context between their original deposition and point of recovery, usually this is through agricultural activity but can also be due to other post-depositional processes which are difficult to quantify (Brindle 2014). Although the coins have been removed from the original context, they can be used in statistical study through applied numismatics.

The quality of spatial data can range from a parish to a 10 figure NGR (1m) from a handheld GPS which often have an accuracy of around ± 3 m. The minimum requirement for a find to be recorded with the PAS is usually a 6 figure NGR (100m) or higher. A real strength

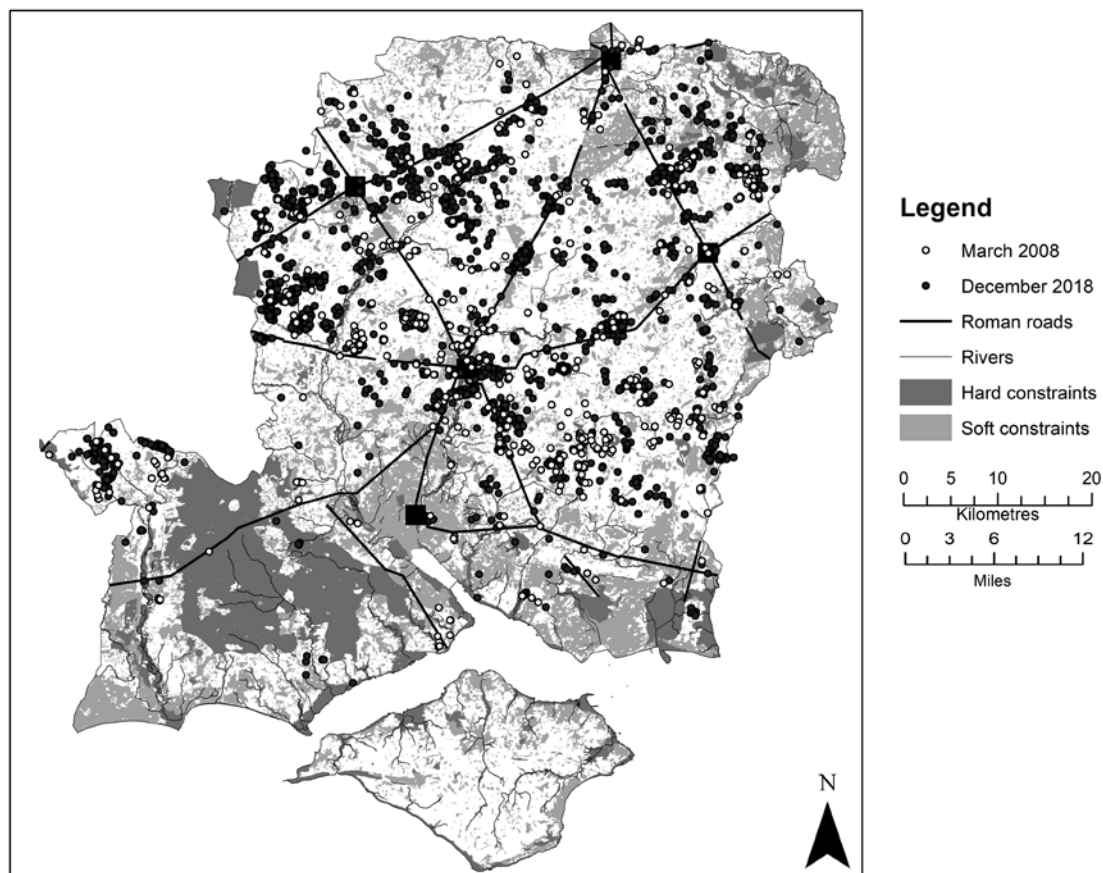


Fig. 1 Comparison of the PAS dataset in March 2008 with December 2018

of the PAS database is the high level of detail to which each object is recorded which allows for interrogation of a range of elements within the dataset. As with any dataset, “data in = data out”, the quality of the data must be of a high standard and the quality of each individual element of the record will have a major impact on accuracy.

Figure 1 highlights the distribution of coinage in Hampshire in March 2008 when Walton (2012) collected the data for Hampshire versus the distribution in December 2018. The significant increase in finds is particularly visible in the south west and north west of the county in the environs of Neatham. There are also concentrations in the environs of *Venta Belgarum* and to the north east of Hampshire,

on the road from *Venta Belgarum* to *Calleva Atrebatum* and at the junction of the Wessex downs and the Hampshire basin to the south east of *Venta Belgarum*. Another key factor to consider is not just the concentrations around the road network but also the river network. As Robbins (2012, 159) notes, the distribution of PAS finds from Hampshire is uneven with the main concentrations centred around the Wessex chalk downlands which downlands cover over a third of the county. There are areas where PAS finds are limited such as the New Forest in the south west of Hampshire or in urban areas including Southampton and Portsmouth. This highlights how bias can affect distribution maps when considered at

Table 1 Hard and soft constraints to metal detecting*Soft constraints*

Elevation over 300m
 Land Cover Map derived data
 World Heritage Sites

Hard constraints

National Trust land
 Scheduled Ancient Monuments
 Sites of Special Scientific Interest
 Ministry of Defence land

face value. To mitigate this bias the concept of ‘constraint mapping’ was developed.

Constraint mapping was first used on a national scale by the Viking and Anglo Saxon Landscape of England (Valse) project (Richards *et al.* 2009). There are numerous constraints which limit metal detecting (both hard and soft constraints – see table 1). Hard constraints are areas where detecting is banned, for example scheduled monuments. Soft constraints are areas where detecting is unlikely to occur, for example woodland or urban areas. World Heritage Sites have been classed as soft constraints as metal detecting is discouraged rather than banned. These maps are essential tools in understanding why there are gaps in the PAS dataset.

For the study a ‘constraints map’ was developed within ArcGIS, combining soft and hard constraints. In addition to the elements included in constraint mapping by Richards *et al.* (2009) or Robbins (2012) data from land cover was also included as previous work has highlighted the benefit of its inclusion (Henry 2018; Henry *et al.* 2019). This dataset had to be modified from a TIFF to a shapefile then queried so that the arable and pasture elements of the dataset were excluded and all other broad habits such as woodland and built up areas were included. This was merged with the other datasets to form the constraints map used within this study. Not all possible constraints may be located within a particular landscape and there can be limitations. For example, in Hampshire there are no World Heritage Sites and metal detecting is unlikely on certain sites such as Langstone Harbour which is a Site of Special Scientific Interest.

The hard and soft constraints maps have been supplied to the Hampshire HER allowing their use for future research.

COMPARISON OF PAS DATA WITH THE HISTORIC ENVIRONMENT RECORD

From 2015, the Hampshire County Council HER has been producing a series of maps titled the Atlas of Hampshire’s Archaeology. The maps present the 50,000 records on the HER as maps from different broad periods. These maps allow an opportunity to compare the HER records for Hampshire with the records from the PAS. The HER now systematically downloads PAS data, therefore the 2015 version of the Atlas is used in this discussion as it clearly maps the variations in the HER and PAS datasets.

As Robbins (2012) states, no data collected by humans is without some form of bias, and the HER is no exception. Robbins (2012) examined in detail the bias within the PAS data and provides a sound basis for examining the bias within the HER dataset as a whole. The archaeological record is inherently biased towards certain types of material remains. This is further complicated by selective collection of certain types and classes of evidence. For example, upstanding monuments or crop marks. These archaeological remains, because of their nature and how we detect them, occur on particular types of landscape (Mills 1985, 39). We must remember that the archaeological record is both the product of the record itself and how this has been sampled and recorded. The Historic Environment Record for Hampshire is recorded by three authorities: Hampshire County Council; Winchester City Council; and, Portsmouth City Council. The HER has the task of recording all archaeological material from the county, yet this is distinct from the original body of archaeological material as only a portion of it will become part of the archaeological record (Robbins 2012, 24).

After considering the work of Robbins (2012) on the bias in the PAS data, there are a number of stages which need to be considered that can affect both the survival of the archaeological record to the present day and its subsequent inclusion on the HER (Henry 2018):

- Inclusion in the archaeological record
- Once it is in the archaeological record it needs to be preserved
- Preservation in the past does not guarantee preservation in the present
- For an object to be recovered or a site to be visible it must be exposed
- The majority of sites will not be discovered unless someone is looking in that specific location
- The discovery may not be recognised and it may not be recorded
- It is up to the individual/ group to decide what is recorded
- It must then be reported to the HER
- Not everything reported to the HER will be recorded depending on the quality of the recording supplied.

The sampling processes undertaken by archaeologists and amateurs, and any inherent bias within their work, will affect the data inputted into the HER. The core aim of the HER in producing a database which records all archaeological knowledge for the county provides its own challenges. As with any archaeological dataset there is the challenge of providing the service expected, inputting new data, reducing the backlog and improving old legacy data.

Although there is bias within any dataset, as was found with a similar study in Wiltshire, the dataset is of a very high quality (Henry 2018). The quality of the data, the creation of the Atlas and the inclusion of new datasets such as the PAS in the HER highlight its value to researchers. Within the HER dataset from the Roman period, the main concentration of recorded sites and findspots are from the chalk downlands. There are also significant concentrations in the environs of the main Roman towns, along the road network and also along the river network. Robbin's (2012, 175) maps the density of concentrations on the HER from the Roman period which highlight the concentrations at *Calleva Atrebatum*, *Venta Belgarum*, *Claesentum* (Southampton); and,

Wickham. Finally, there is also activity on, and to the north of, Hayling Island. The majority of HER records are concentrated in, or near settlements. Robbins (2012, 187) notes that 28 per cent of find spots recorded on the HER as a whole are within 100m of a settlement. Robbins (2012, 187) also highlights that Roman finds are concentrated at further distances, 1.8–2.3km from settlements. When comparing the HER with the PAS it is clear that the PAS dataset is, as already discussed, affected by the distribution of modern constraints.

The distribution of PAS finds in Hampshire does complement the HER dataset and either adds further data to areas where known archaeology is recorded on the HER or, it suggests substantial evidence for settlement or activity in others (Fig. 2). This includes the concentration along the road from *Venta Belgarum* to *Sorviodunum* (Salisbury) and to the south east of *Calleva Atrebatum*. There are also significant concentrations around Rockbourne (to the west of the River Avon) and in contrast to the HER limited numbers of PAS finds from Hayling Island and to the north of the island. Interestingly the PAS does not offer a similar representation of strong concentrations of finds along the Hampshire section of the River Avon although there are significant numbers of finds from Breamore.

The numismatic analysis of the dataset will be undertaken using Reece period analysis and a modified version of Reece's ABCDE. Table 2 and table 3 provide a breakdown of the the sites discussed in the text by Reece period and ABCDE period for the PAS data. Both tools are beneficial as they allow for comparative study of any site throughout Britain with another. Reece divided Roman Britain into 21 periods to assemblages with varying quantities of coins to be studied and analysed together (Reece 1973; Reece 1995, Walton 2012). The analysis is undertaken per mill (1,000 coins). Although Reece period analysis is a useful numismatic tool, it groups coins by when they were made and not necessarily when they were used or lost. Coins can be used for over a century after they were produced and brought into circulation (Reece 1988; Creighton 2014). Therefore, a modified form of Reece's ABCDE analysis is also used (Henry & Ellis-Schön 2017).

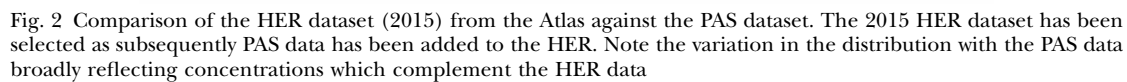


Table 2 Reece period breakdown of the sites and counties described in the text. The Walton (2012) British mean is not included as the raw data was not included in the text. Winchester, Silchester, Rockbourne and Portchester are derived from Reece (1991). The data for Wiltshire and Hampshire derived from the PAS database on 31st December 2018

<i>Reece period</i>	<i>Hampshire PAS mean</i>	<i>Wiltshire PAS Mean</i>	<i>Hampshire RRS</i>	<i>Winchester</i>	<i>Silchester</i>	<i>Rockbourne villa</i>	<i>Portchester Castle</i>
1 (to AD 41)	173	66	49	1	21	2	0
2 (41–54)	75	51	28	19	79	0	1
3 (54–69)	43	26	8	4	22	1	0
4 (69–96)	193	134	26	21	187	2	0
5 (96–117)	140	111	15	14	107	2	0
6 (117–138)	170	110	17	16	125	3	0
7 (138–161)	265	174	35	12	158	3	0
8 (161–180)	167	111	15	16	102	3	0
9 (180–192)	69	62	5	3	40	2	0
10 (193–222)	144	173	22	8	100	4	0
11 (222–238)	58	66	8	5	55	4	0
12 (238–260)	131	105	18	8	71	1	2
13 (260–275)	1474	2031	511	450	2144	89	43
14 (275–296)	1173	1489	419	419	1483	87	69
15 (296–317)	435	501	32	22	168	17	75
16 (317–330)	780	1053	193	54	592	59	67
17 (330–348)	2256	3602	736	358	2901	348	188
18 (348–364)	658	1099	192	146	1068	42	31
19 (364–378)	1771	2593	250	143	1570	8	78
20 (378–388)	71	97	14	11	48	1	5
21 (388–402)	193	258	75	106	673	6	14

Table 3 ABCDE analysis for Wiltshire and Hampshire derived from the PAS database on 31st December 2018

	<i>Wiltshire</i>	<i>Hampshire</i>
A (to AD 260)	1381	2028
B (AD 260–296)	3620	2863
C (AD 296–330)	1554	1221
D (AD 330–364)	4708	2914
E (AD 364–402)	2967	2047

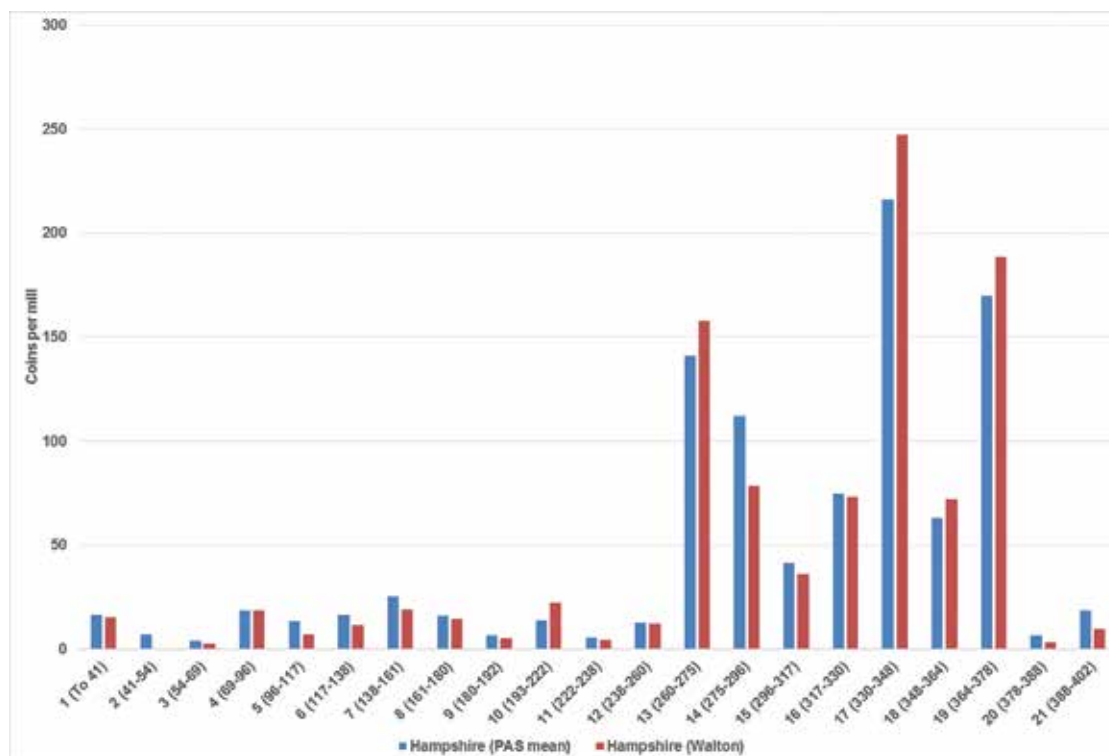


Fig. 3 Reece period comparison of the Hampshire mean by Walton (2012) with the Hampshire PAS mean derived from data downloaded in December 2018. Note the increased peaks up to Reece period 9 and also the peak in Reece period 21. Both charts highlight the rural nature of the PAS county profile

ABCDE analysis highlights wider long term trends and it can be an effective indicator of currency circulation. Both forms of analysis are undertaken in a similar way and can be used to analyse the coins from a particular site, parish, district, county or country: the number of coins from that period divided by the total number of coins multiplied by 1,000. With Reece period 1 coinage in Hampshire the format would be 173 divided by 10,439 multiplied by 1,000.

When comparing the Reece period Hampshire mean compiled by Walton using data downloaded in March 2008, to the current Hampshire mean, the same broad pattern is visible (Fig. 3). There are, however, lower peaks in the PAS mean in the 4th century. The coin profile for Hampshire includes significant increase in coinage in the late 3rd and 4th centuries in comparison to the 1st and 2nd centuries. The main peaks are in Reece periods 13, 14, 17 and 19 which reflects

the rural nature of the county. The peaks up to AD 260 on the Hampshire PAS mean are also significant. When considering the Hampshire PAS mean with those from *Venta Belgarum* or *Calleva Atrebatum* (Reece 1991), the broad pattern is very similar. Apart from a slight increase in Reece period 2 neither *Venta Belgarum* nor *Calleva Atrebatum* have higher peaks than the Hampshire PAS mean until Reece period 13 (Table 2). Both *Calleva Atrebatum* and *Venta Belgarum* do have a significant increase in Reece period 21 representing the last issues imported to Britain. Therefore, the Hampshire PAS mean is a fair representation of the coin profile for the county as a whole.

The data from the Roman Rural Settlement (RRS) project is available to researchers including artefactual data and detailed numismatic data (<https://doi.org/10.5284/1030449>). The RRS ran from 2012–2016 with the aim of creating a

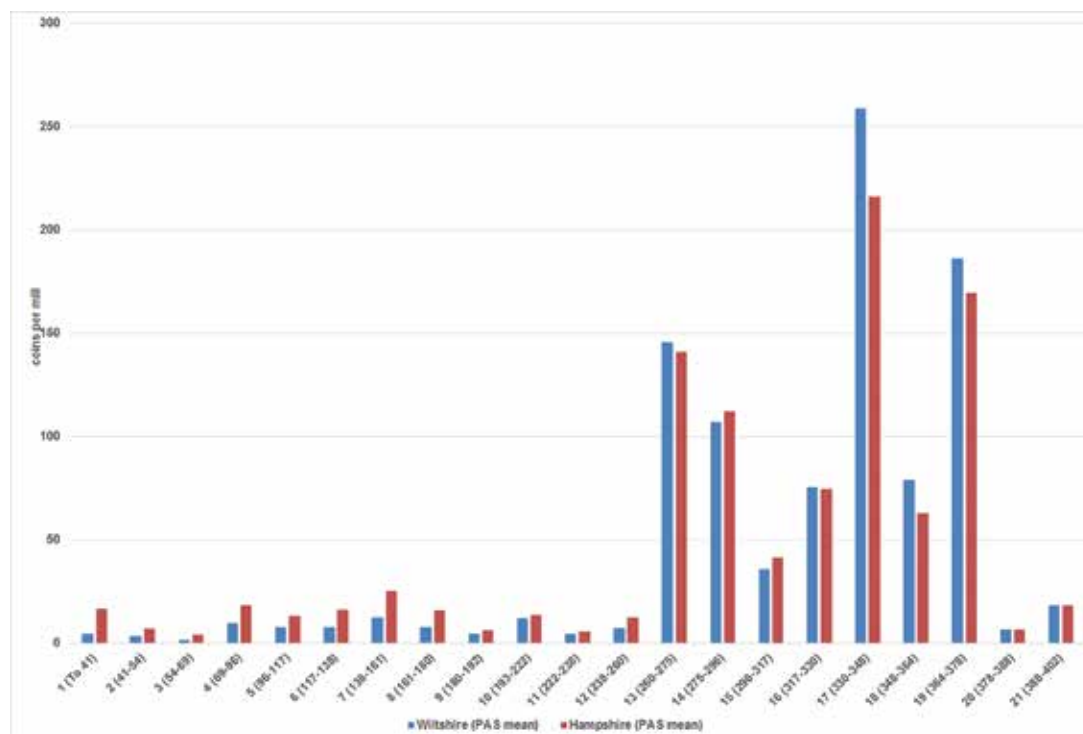


Fig. 4 Reece period comparison of the Hampshire PAS mean and the Hampshire RRS mean

comprehensive database of rural settlement in England and Wales. 3,600 records of rural settlements were created based on grey literature and publications including dating from the various HER's in Hampshire (Smith *et al.* 2016). The largest assemblages recorded by the RRS with a detailed breakdown are from: Neatham (1,261), Rockbourne (570), Hayling Island (458) and Fullerton (103).

The full RRS dataset that can be assigned a Reece period consists of 2,668 coins and provides a good comparator to the PAS dataset from the county. Both datasets have a coin profile which reflects the rural nature of the assemblages and the county as a whole (Fig. 4). The RRS mean has slightly higher peaks in Reece period 1 and 2 based almost entirely on the assemblage from the shrine Hayling Island, highlighting the continuity between the Iron Age and Roman period at the shrine. Subsequently the PAS has higher peaks in coinage until Reece period 13. The

main variation is in Reece period 13, 14, 15, 17 and 19. A note of caution should be made with the RRS Reece period 13 and 14 peak as the assemblage from Neatham recorded these issues together, consequently they were split in half for the RRS project (222 coins in each period). The Neatham assemblage accounts for 48 per cent of all coins recorded by the RRS project from Hampshire from Reece period 13 and 14. Therefore it is likely that the peak would have been more pronounced in one peak. This would then offer a potentially different interpretation as to why the peak has occurred and what it may relate to (see below for a discussion of coinage and hoards from Reece period 13 and 14). There is a substantial decline in coin loss in the RRS dataset from Reece period 19 with only one large assemblage recorded from Neatham (Millett & Graham 1986). The majority of other sites recorded by the RRS project decline in Reece period 19 (discussed below).

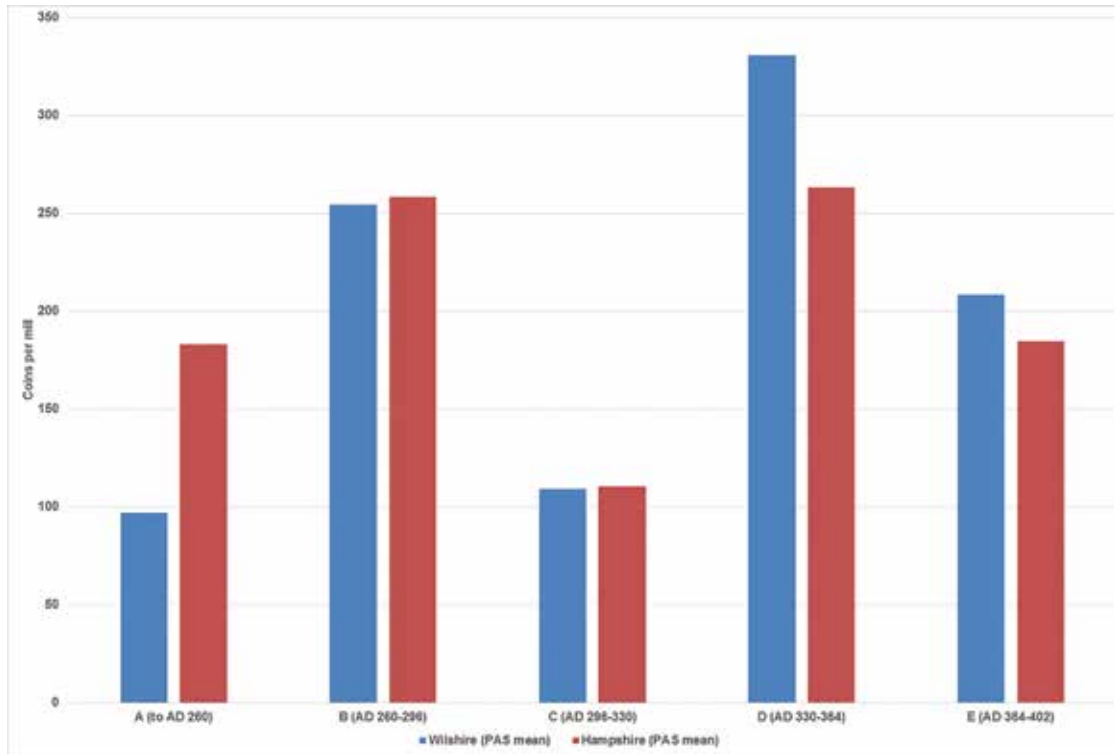


Fig. 5 Comparison of the ABCDE Wiltshire (PAS mean) and Hampshire (PAS mean)

The comparison of the Hampshire PAS mean with that from the Wiltshire PAS mean also offers some interesting insights into the variation of coin profiles in the two counties. Until Reece period 13 every peak is higher in Hampshire, the particularly notable area for discussion is the peaks from Reece period 1–12 (Period A). The higher quantity of coinage from these early periods indicates a higher quantity of circulating currency in the first two centuries of Roman Britain. Although the peaks in the 4th century are higher from Wiltshire, the quantity of late Roman coinage circulating in Hampshire is still substantial and indicates prosperity at rural sites towards the end of Roman Britain.

The peaks up to AD 260 are visible when undertaking Reece period analysis but when we undertake ABCDE analysis the variation is particularly pronounced (Fig. 5). Due to wear on many early coins, often they cannot be assigned a Reece period whereas we can

assign them to period A. Therefore, there are a larger quantity of coins from Period A than the corresponding Reece periods. When comparing the dataset for Hampshire and Wiltshire there is almost a 200 per cent increase in period A coins from Hampshire. In period A, the main denominations circulating in Hampshire are, the silver denarii and the copper-alloy sestertii, dupondii and asses. As mentioned above the slight peaks are also visible in periods B and C.

If an arbitrary division of north and south Hampshire is undertaken (to the north and to the south of Winchester), variations within this coin profile are also visible (Fig. 6). To the north the quantity of coins recorded with the PAS is significantly higher. This is in part due to the constraints to metal detecting to the south including the New Forest and the urban areas of Portsmouth and Southampton (see the constraints in Figure 1). To the south there are higher peaks in to AD 275 excluding

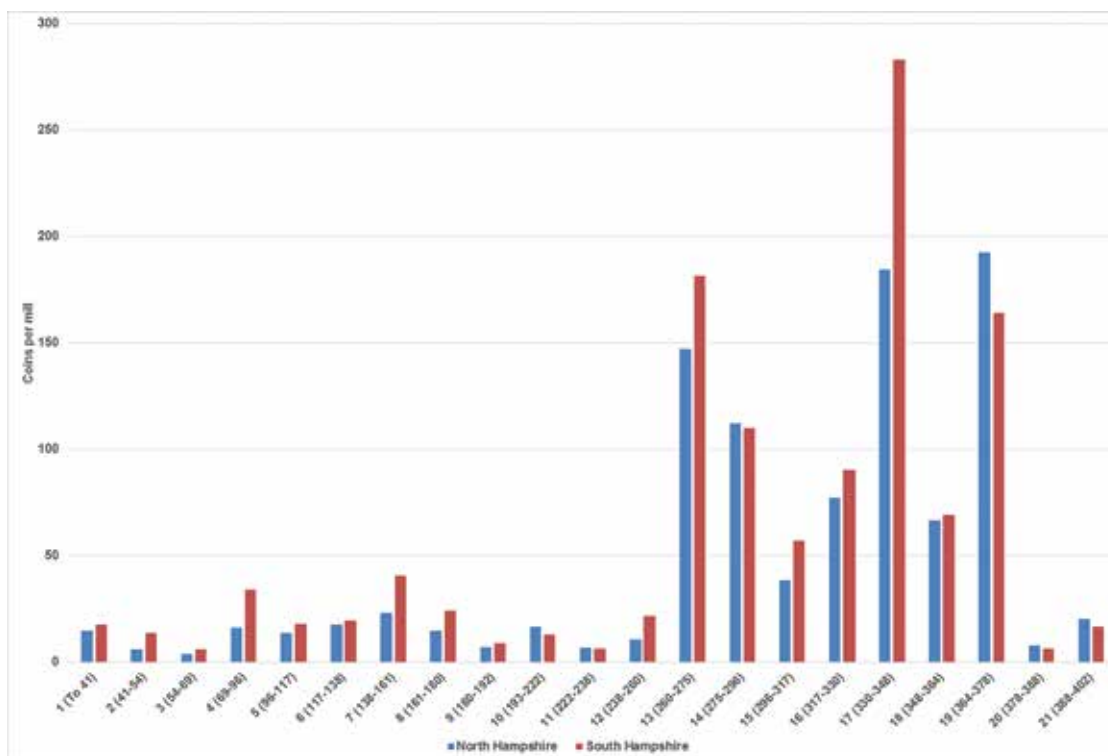


Fig. 6 Reece period comparison of an arbitrary division of north and south Hampshire. Note the increase in peaks to Reece period 13 in in south Hampshire and the significant Reece period 17 peak

Reece period 10, particularly in the Flavian and Antonine period. There is also higher peaks in Reece period 1 and 2 (discussed below).

Interestingly, to the south, the most significant peak is in Reece period 17 and there is also a decline in coin loss in Reece period 19. This mostly reflects the quantity of the assemblages to the west of Hampshire, particularly Rockbourne and Breamore which is located within the Salisbury to Purbeck which declines in coin loss after AD 350 (Henry & Ellis-Schön 2017).

The discussion of the analysis of the Roman coins recorded by the PAS from Hampshire will focus on four themes: the coinage from the Augustan system (within Period A – coins dating to AD 260); the 3rd century; the prosperity of the 4th century; and, a discussion of the decline from Salisbury to Purbeck.

THE AUGUSTAN SYSTEM

Up until Reece period 10 the peaks are higher than the mean compiled by Walton in periods 1, 4 and 7 (Fig. 3). Reece period 2 is now also represented whereas it was not in the 2008 dataset. The initial peak consists mostly of Republican denarii and early imperial denarii. Republican denarii had entered Britain in significant quantities before the Roman conquest in AD 43 (Bland 2018). Walton (2012) noted that there is a concentration of material from this date along the *Claesentum* to *Venta Belgarum* road. Along the south coast these issues appear to have a connection with Continental trade (Walton 2012). They can also remain in circulation until the end of the 1st century AD and may indicate military activity (Walton 2012). Figure 7 compares the distribution of Reece period 1 issues with those from periods 2–4. Reece period 1 coins form a very small proportion of the coin assemblages from *Venta*

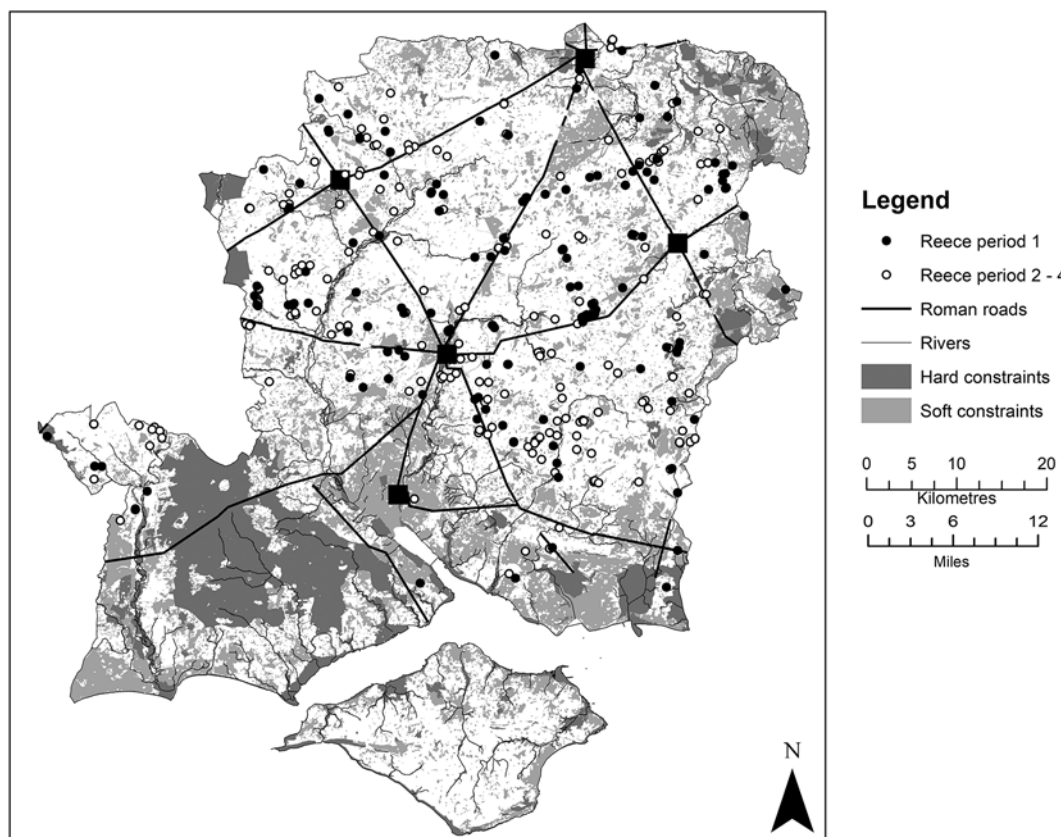


Fig. 7 Comparison of the Reece period 1 (to AD 41) and Reece period 2-4 (AD 41-96) distribution

Belgarum and *Calleva Atrebatum*. Although some issues are recorded in the environs of these towns the majority of the issues are focused on the road network and also the river network.

The coinage from sites which display stronger continuity between the Iron Age and Roman periods have stronger peaks in Reece periods 2 and 3 (Moorhead 2017, 165). Such peaks are now visible in the 2018 dataset and period 2 coinage will be considered further in particular below. Reece (1991) shows that Flavian coin peaks (Reece period 4) are often seen at military or urban sites. Although there is a slight peak in site finds from the Flavian period this may also reflect civilian activity as conversely, most Flavian hoards are from the civilian zone (Creighton 2014; Bland 2018). The Antonine peak in coin loss is due to an influx in coinage from the 150's. The peak also reflects the

influx in coinage to rural sites and from this period coinage is seen in greater quantities in assemblages at rural sites.

When considering Reece period 2 the influx in contemporary copies, often crude imitations of Claudian Minerva type asses requires particular discussion. Pre Claudian copper-alloy coins are rare as site finds in Britain, examples are known from early major sites – such as Fishbourne or *Noviomagus* (Chichester). Very few are known from later Claudio-Neronian sites (R. Kenyon pers. comm.). The problems with supply from the mint at Rome occurred from at least the reign of Caligula (AD 37–41) resulted in the production of copies. It was believed that many of these coins were semiofficial and were struck at legionary bases such as Colchester with the earliest issues produced for the army (Kenyon 1987; 1992). The broad distribution in

Britain is mostly to the south of the Fosse Way (Walton 2012). Following on from the work of Besombes and Barrandon (2000), Kenyon is now assigning many of these Claudian copies to the auxiliary mints which operated in Spain and at Lyon in Gaul. In his doctoral study on Claudian copies, Kenyon (1992) noted that in the territory assigned to the Atrebates (focusing on Hampshire and West Sussex in particular) Claudian coin finds in Hampshire were largely limited to *Clausentum*, *Venta Belgarum* and *Calleva Atrebatum*. Claudian copies are known at military sites, but as regularly are from rural sites and urban centres which highlights their acceptance for goods and services (Kenyon 1987; 1992, 204). The PAS data has provided more examples of these copies at rural sites.

These Claudian asses are important as it provides an insight into circulating currency at this point in time. From the invasion until AD 64, when Nero produced vast quantities of bronze and copper-alloy issues, the general picture of coin circulation in Roman Britain is that Roman imperial coin types, including copies, were the primary means of exchange (Reece 2002). In AD 64 Nero reopened the mint at *Lugdunum* (Lyon) in Gaul which produced the currency for the north western provinces. These Claudian copies were likely to have remained in circulation until AD 70 (Kenyon 1987; Reece 2002; Henry 2018). The high amount of wear evident on some Claudian coins from west Hampshire, Dorset and Wiltshire would suggest longer circulation in more remote parts of Roman Britain. Walton (2012) suggests that the concentration of Claudian copies in Hampshire and Wiltshire may relate to trade rather than a military connection and recent analysis indicates that the majority of the Claudian copies recorded with the PAS follow the Roman road network in the south west (Henry *forthcoming*). In these areas, there may have been variation to the general picture of coin circulation and the potential inclusion of copper-alloy and potentially silver Durotrigan staters in circulation which also prominently follow the Roman road network (Henry 2018; Henry *forthcoming*). Due to the wear on debased Durotrigan staters it is likely that Durotrigan issues remained in circulation until after the reforms of AD 64 and probably fell out of use

along with the Claudian copies *c.* AD 70 if not later (Henry 2018). Such coins are recorded from Hampshire and highlight the challenges faced when assuming that a coin was deposited shortly after it was produced.

The early issues of *sestertii*, *dupondii* and *asses* from Hampshire can be very worn, suggesting they were in circulation for over a century before deposition. A hoard from Vindolanda suggests that such *sestertii* can be in circulation for up to 250 years (Brickstock 2011). Reece (1988) discusses 8 base metal coin hoards which include these issues that are deposited after AD 260; 90 per cent of these coins were over 70 years old and 10–30 per cent were over 130 years old when deposited. He suggests that the likelihood is that bronze coinage in the 3rd century was made up of a majority of old and worn issues and he attributes this to a limited supply of newer issues after AD 196. Therefore, when considering coinage from Period A in Hampshire, care should be taken to consider wear. Worn examples should be regarded as a residual part of an original currency pool which is circulating alongside later issues, potentially even as late as the large number of 3rd century radiates from the county.

THE 3RD CENTURY

In the radiate period (period B AD 260–296) a total of 31 recorded hoards were deposited in Hampshire. This corresponds with a significant peak in coin loss from the period recorded with the PAS where 1,221 coins have been recorded (Fig. 8). The radiate was a highly debased denomination that was produced, lost, and also hoarded, in large numbers. The significant concentration of hoarding in this period must be seen against the pattern of debasement, reform and change in political control (Bland 2018). During this period, the empire was not just a single entity, there were two separate breakaway empires at different times the Gallic Empire and the Britannic Empire. In AD 260 the emperor Gallienus lost control of the North West Empire (Britain, Gaul, Germany and Spain) to the usurper Postumus. This breakaway state is known as the Gallic Empire and survived until AD 274

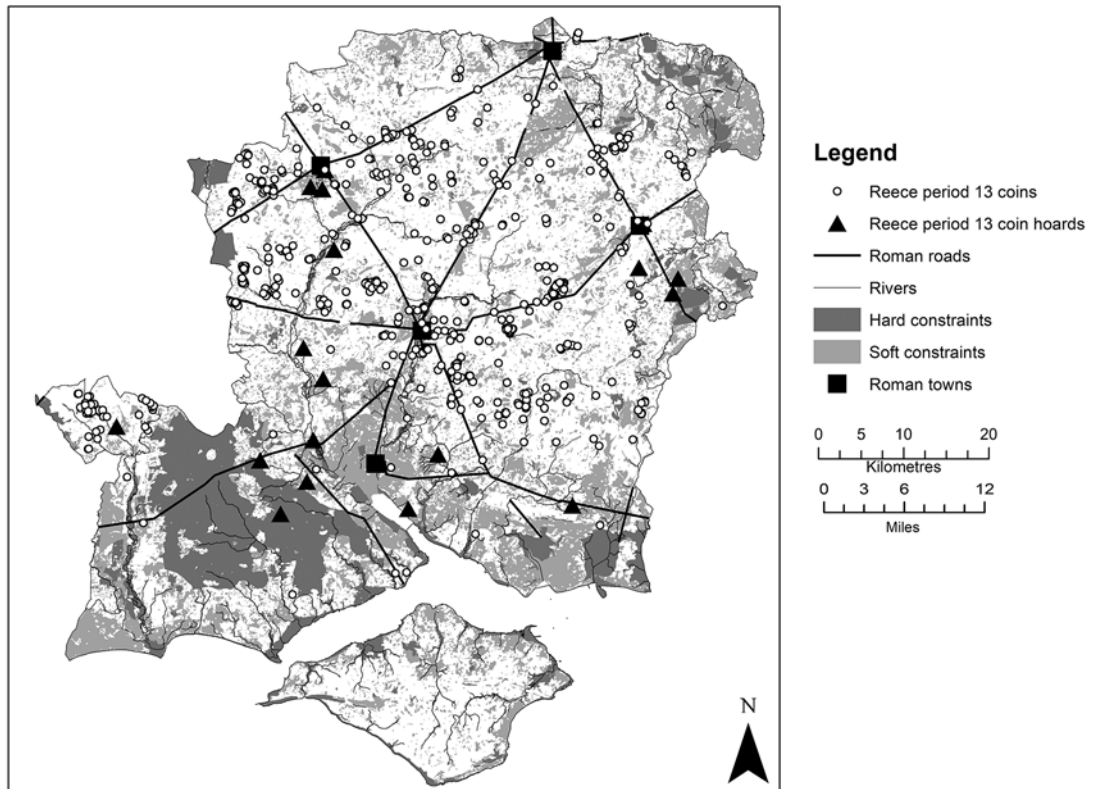


Fig. 8 Comparison of the coins from Reece period 13 and coin hoards (AD 260–275)

when Tetricus I and II were defeated by the emperor Aurelian. In Britain the majority of hoards were either deposited in the years AD 260–271 (122 hoards) or AD 271 to after AD 274 (245 hoards). As Bland (2018, 77) notes, 245 coin hoards from a period of three years is significant, but we cannot assume they were all deposited at this time due to the issue of coin circulation after a Aurelian's reforms.

The main concentrations of coins from Reece period 13 are to the south west, the environs of Venta Belgarum or the river network. Excavations of *Venta Belgarum* and *Calleva Atrebatum* have produced significant quantities of such issues (450 and 2,144 respectively) but Reece period 13 issues have not been recorded in great numbers in the environs of *Calleva Atrebatum*. The distribution of Reece period 13 hoards is of particular interest. The main focus is to the south coast and also along the

river network. In particular, 7 hoards along the River Test.

Within the Reece period 14 assemblage is an unusually high quantity of coinage from the Britannic Empire. In AD 286 Carausius declared himself emperor of Britain and part of Gaul known as the Britannic empire ruling until AD 293 when he was killed by Allectus. Allectus in turn was defeated in AD 286 by Constantius Chlorus (the father of Constantine the Great). Under Carausius and Allectus for the first time since the Iron Age official coinage was being produced in Britain. In Hampshire, over 35 per cent of the coinage recorded from Reece period 14 are issues struck by Carausius or Allectus. Walton (2012) also noted high concentrations of these issues from *Calleva Atrebatum*. This is in contrast to Wiltshire for example, where 20 per cent of the assemblage consists of these issues.

As with the Reece period 13 distribution the

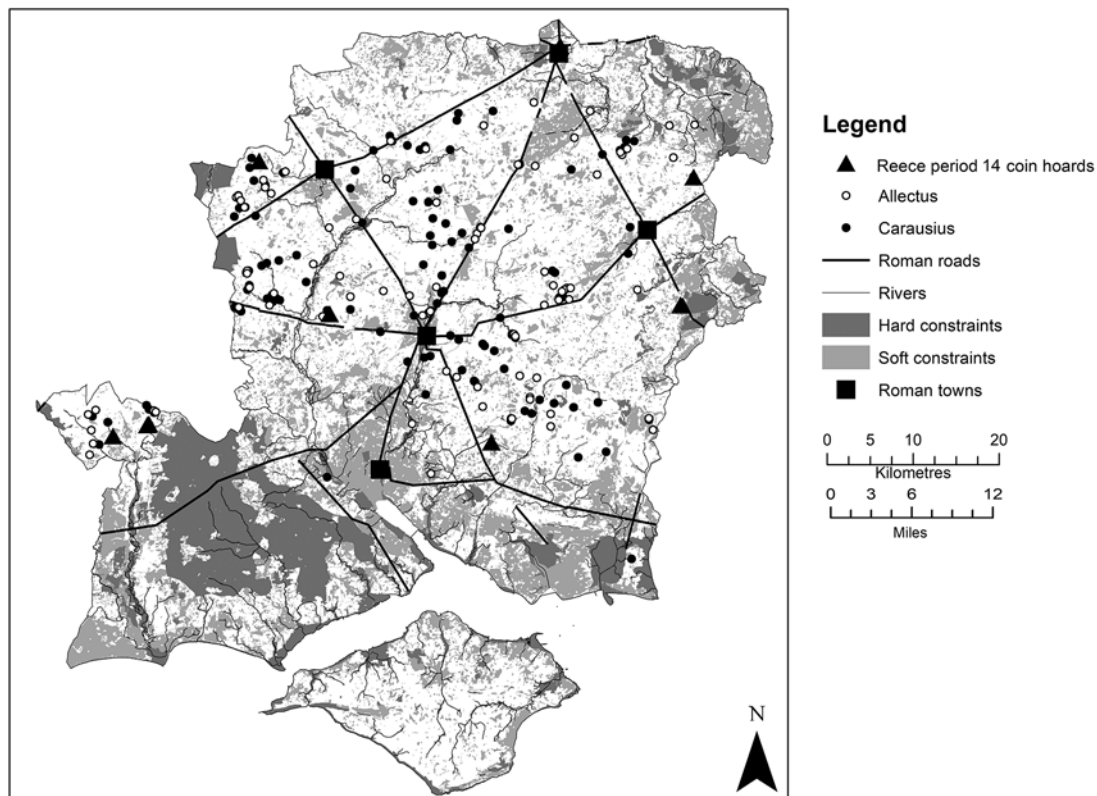


Fig. 9 Comparison of the coinage of Carausius (AD 286–293) and Allectus (AD 293–296) with Reece period 14 hoards (AD 275–296)

main focus for coins of Carausius and Allectus is along the road and river network (Fig. 9). An interesting element of the distribution is that to the south west of Winchester at the junction of the Wessex downs and the Hampshire basin. Given the constraints to metal detecting perhaps the lack of coins from the south coast is unsurprising but given the Saxon Shore forts, such as *Portus Adurni* (Portchester Castle) and at *Clausentum*, perhaps more could have been expected. 69 Reece period 14 coins were recorded from the excavations at Portchester including issues of Carausius (Reece 1991).

THE 4TH CENTURY

The peak in Reece period 17 reflects the vast majority of coin assemblages from Britain as a

whole. Similar peaks in Reece period 17 coinage is also reflected from *Venta Belgarum* and *Calleva Atrebatum*. The Reece period 17 peak is more pronounced to the south of Hampshire (Fig. 6). The peak in Reece period 19 highlights the prosperity of some rural areas to the very end of the 4th century and there is also a peak in Period E (Fig. 10). This peak reflects a productive and wealthy agricultural landscape, able to produce considerable quantities of grain for export to the continent (Moorhead 2001, Draper 2006). It is possibly associated with the increased export of grain after the reign of Julian the Apostate (AD 355–353) when British grain exports to the continent increased (Moorhead 2001, Moorhead & Stuttard 2012, 206–8; Brindle 2014). The main concentrations for period E are along the Roman road network, in the environs of

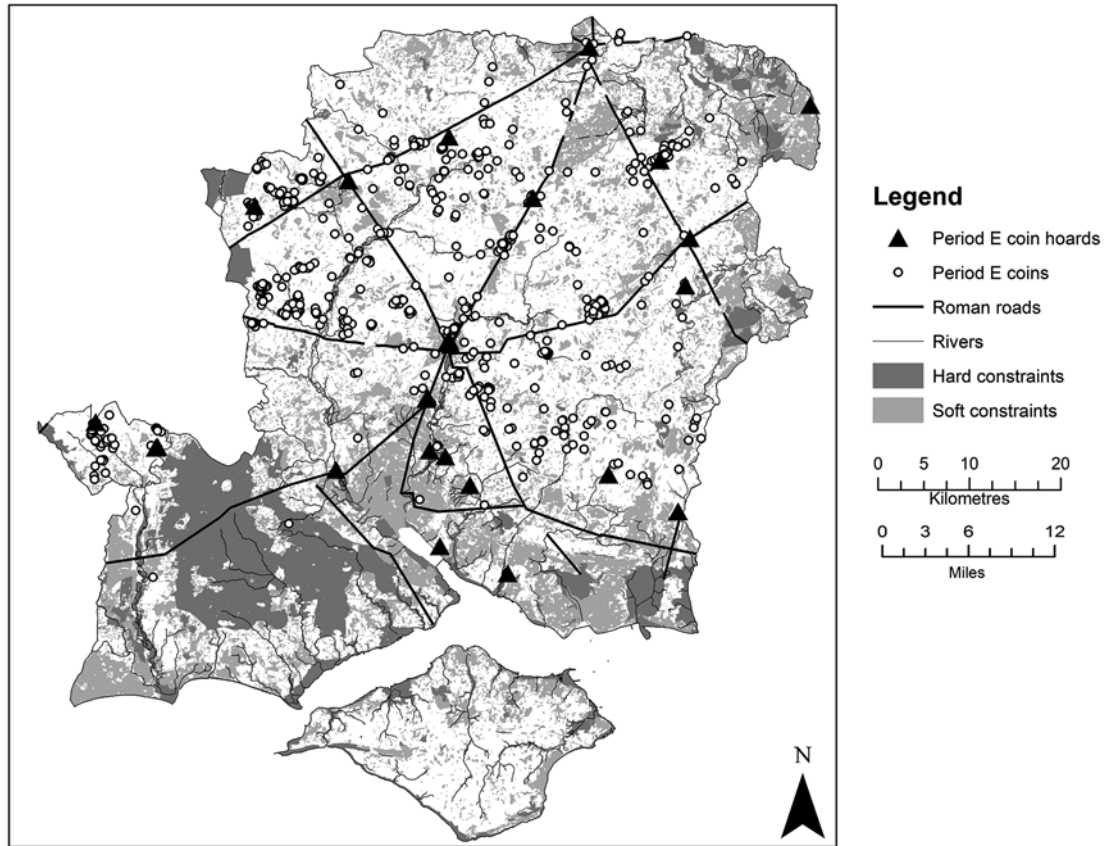


Fig. 10 Comparison of Coin hoards and coins recorded with the PAS from Period E (AD 364–402)

Venta Belgarum and a visible concentration to the south west. The hoards for this period are mostly located in the towns and road network. There is a significant concentration around the environs of *Clausentum*.

The wealthy landscape reflected within the coin profile is also reflected in the quantity and distribution of coin hoards from the county in the late 4th century. The most significant peaks in hoarding in the Roman period are in the radiate period (particularly AD 260–296), the second largest peak in hoards is in the late 4th century. In Hampshire 31 coin hoards are recorded from the radiate period and 22 are recorded that were deposited after AD 364 (period E). The greatest concentration is in the environs of *Venta Belgarum* and *Clausentum* and, interestingly, around Rockbourne. Rockbourne

is located within an area that shows evidence of a decline in coin loss in the late 4th century (Henry & Ellis-Schön 2017).

Silver late Roman coin hoards in particular are a British phenomenon (Kent 1994, Bland 1997, Guest 1997; Bland 2018). After AD 364 there is a sharp increase in the supply for gold and silver coinage which peaks in AD 394–402 (Bland 2018). This increase in supply correlates with the increase in hoarding and the increase in silver siliquae recorded as site finds (Bland *et al.* 2013). Such silver issues, in particular silver siliquae were often clipped to varying degrees.

It is possible that clipped hoards and stray finds which have been clipped from this period could also have been deposited in the 5th century; analysis shows hoards from AD 388–402 were buried over a longer period of time than their

terminus post quem suggests (Guest 2015). In this context, when considering the coins which were produced in Reece period 21, did these issues remain in circulation after AD 402. The clipping of silver *siliquae* is generally accepted to have become widespread at the beginning of the 5th century and to have continued until at least AD 420, and possibly even to middle of the 5th century (Spufford 1988; Guest 2005; Abdy 2013). Clipping provides an indicator of coin use in the decades immediately beyond Britain's final exit from the Roman Empire.

In the western mints the production of bronze nummi ceased in Trier, Arles and Lyon around AD 395. Importantly a cessation of production does not equate to a cessation in circulation and it is difficult to ascertain when nummi ceased circulating in Britain but it is likely to occur in the 5th century. Walton (2012) does suggest that a tri-partite currency system might have remained in place until *c.* AD 425. Therefore, given the late Roman hoards from the county, could these issues have remained in circulation until after the end of Roman Britain.

A DECLINE IN COIN LOSS IN THE WEST OF HAMPSHIRE?

As noted, there are significant concentrations of PAS finds from Rockbourne and Breamore. The HER also highlights significant concentrations of records along the Hampshire section of the River Avon. Sherratt (1996) argues that routes through the Wiltshire Avon and its tributaries, to the Bristol Avon were the major transport routes during several periods in British prehistory. The combined Avon trade axis was particularly evident in the late Iron Age up to 50 BC. Roman domination of Gaul appears to have altered the trading routes of the Channel to a significant extent, limiting the flow of imports (Cunliffe 1991, 116; Cunliffe 1993; Sherratt 1996). Although the prominence and pre-eminence of water transport over road transport in the Roman period, the focus of interpretation of sites or finds remains the road network.

Although Hampshire as a whole has a late Roman peak which reflects the agricultural landscape, as already noted there are variations

when we consider specific areas. This variation is also visible in the RRS data as the majority of sites – excluding Neatham – have below average peaks in Reece period 19. The area from Salisbury to Purbeck has been noted as having a decline in coin loss during the last half of the 4th century. When evaluating the potential reasons for this decline a number of arguments have been put forward.

Narratives of coin use in the period, focus on decline or abandonment. A weak 4th century profile does not necessarily relate to a decline in settlement, nor is it instantly relatable to a historical event. The evidence seems to point to widespread change in the area. The pattern of expansion and contraction in settlement pattern is immediately visible within the study area. The numismatic assemblage is derived from external economic factors coursing through the life of rural localities and stimulating growth or decline. Settlements are interdependent, so a change at one is likely to have an effect on others. In the late Roman period we see clear increase in rural wealth possibly associated with the increased export of grain after the relaxation of grain laws by Probus (Moorhead 2009; Moorhead & Stuttard 2012; Brindle 2014). Rather than view this weak 4th century profile as a decline, culminating in an abandonment of settlement broadly simultaneously over a group of linked clusters, we should consider if it highlights an economic change which influences the neighboring settlements.

By the end of the 4th century the chalk had been cultivated for millenia resulting in a decline in soil quality in the region. On the Marlborough downs for example, thin soils on chalk subsoil ceased to support arable farming and they were instead used as pasture from the 3rd or 4th centuries (Fowler 2001, 208). Pasture requires significant management and feeding stock requires inter community negotiation to sustain the system known as transhumance, as grazing often will be away from settlement (Fowler 2001, 224). Pastoral economies, in contrast to arable farming, can produce lower surpluses and therefore less evidence of wealth. The numismatic profile of Wiltshire suggests that there were significant arable surpluses and significant numbers of

late Roman coins (Period E). Areas which do not reflect this profile are considered to be somewhat anomalous and are suggested to be areas in decline (Hawkes 1947; Taylor 1967).

Although a decline is noted from Salisbury to Purbeck, the stark decline is most visible to the south of Bokerley Dyke (Henry & Ellis-Schön 2017). We cannot assume that a lack of coins equates to an abandonment of settlement. With the current dataset, it is suggested that the wider coin profile of the region from Salisbury to Purbeck potentially reflects a change from an arable economy to a pastoral economy or is evidence of settlement abandonment (Henry & Ellis-Schön 2017).

CONCLUSION

The paper highlights the value of the PAS for research and provides a methodology for using the data and analysing Roman coins from the county. The importance of considering bias within datasets and mitigating the inherent bias is also crucial for researchers. The constraints map for PAS data assists in understanding the distribution pattern and is available from the Hampshire HER. The PAS, now included on the HER offer complimentary datasets which provide a detailed insight into the past. When undertaking research into the Roman period in Hampshire other datasets are also invaluable, particularly the Roman Rural Settlement project.

Roman coinage from Hampshire also offers further insights into the history of the county and the variation seen in different areas and centuries. For example the contrast between the

coin profile to the west of the county where coin loss declines after AD 350. This decline is not evident in the centre and northern regions of Hampshire both in regards to coin loss and also hoarding where the environs of *Venta Belgarum* should be considered as key to understanding the changing pattern of coin loss.

The paper also offers avenues for further research, including; the changing distribution of coinage in different regions of the county, evaluating key concentrations such as those around the *Venta Belgarum* to *Sorviodunum* road, the evaluation of debased silver and copper-alloy Durotrigan staters in respect to early Roman issues, and, as importantly, evaluating areas where previous research has been less undertaken. Understanding the gaps in our knowledge are as essential as the distribution of known sites, as this will help assess whether the gaps are a genuine absence of data or data yet to be discovered.

ACKNOWLEDGEMENTS

Thank you to David Hopkins, the County Archaeologist and Alan Whitney the Historic Environment Record Officer for their assistance providing information regarding the Historic Environment Record. I am also indebted to Robert Kenyon for his insight and comments relating to the circulation and distribution of coinage in the first decades of Roman Britain. This paper also highlights the success of the Portable Antiquities Scheme in Hampshire which is due to the dedicated staff and volunteers of the scheme as well as those who record their discoveries.

REFERENCES

- Abdy, R 2013 The Patching hoard, in Hunter, F & Painter, K (eds) *Late Roman Silver: the Traprain treasure in context*, Edinburgh, 105–113.
- Besombes, P A & Barrandon J N 2000 Nouvelles propositions de Classement des Monnaies de “Bronze” de Claude I^{er}, *Revue Numismatique* 161–88.
- Bland, R 1997 The changing patterns of hoards in the late Roman Empire, *L'antiquité tardive* 5 29–55.
- Bland, R 2018 *Coin Hoards and Hoarding in Roman Britain AD 43–c.498*, London.
- Bland, R, Moorhead, T S N & Walton, P 2013 Finds of late Roman silver coins from Britain: the contribution of the Portable Antiquities

- Scheme, in Hunter, F & Painter, K (eds) *Late Roman Silver: the Traprain treasure in context*, Edinburgh, 117–66.
- Bowen, H C 1990 *The Archaeology of Bokerley Dyke*, London.
- Brickstock, R J 2011 Commerce, in Allason-Jones, L (ed.) *Artefacts in Roman Britain*, Cambridge, 20–45.
- Brindle, T 2014 *Portable Antiquities Scheme and Roman Britain*, London.
- Cunliffe, B 1991 *Iron Age Communities in Britain*, 3rd ed. fully revised, Abingdon.
- Cunliffe, B 1993 *A Regional History of England, Wessex to A.D 1000*, Harlow.
- Cunliffe, B 2000 *The Danebury Environs Programme: the prehistory of a Wessex landscape. Vol. 1: overview*, Oxford.
- Cunliffe, B 2008 *The Danebury Environs Roman Programme: a Wessex landscape during the Roman Era. Vol. 1: overview*, Oxford.
- Draper, S 2006 *Landscape, Settlement and Society in Roman and early Medieval Wiltshire*, Oxford.
- Fowler, P J 2000 *Landscape Plotted and Pieced. Landscape History and Local Archaeology in Fyfield and Overton*, Wiltshire, London.
- Fowler, P J 2001 *Farming in the First Millennium AD*, Cambridge.
- Guest, P 2005 *The Late Roman Gold and Silver Coins from the Hoxne Treasure*, London.
- Guest, P 2014 The hoarding of Roman metal objects in fifth-century Britain, in Haarer, F K (ed.) *AD 410: the history and archaeology of Late Roman and Post-Roman Britain*, London, 117–29.
- Hawkes, C F C 1947 Britons, Romans and Saxons round Salisbury and in Cranborne Chase: reviewing the excavations of General Pitt-Rivers 1881–1898, *Archaeol J* **104** 27–81.
- Henry, R 2018 Using the Wiltshire and Swindon Historic Environment Record as a tool for research, a methodological approach, *Wiltshire Archaeol Natur Hist Mag* **111** 230–245.
- Henry, R & Algar, D 2018 A late Roman silver coin hoard from Tisbury in context: a case study for dispersal through agricultural activity, *Wiltshire Archaeol Natur Hist Mag* **111** 311–317.
- Henry, R *forthcoming* Iron Age and Roman coinage recorded with the Portable Antiquities Scheme in Dorset in the context of the south west, *Proc Dorset Natur Hist Archaeol Society*.
- Henry, R & Ellis-Schön, J 2017 The finding Pitt-Rivers project: a reassessment of the numismatic assemblage from Woodcutts in context, *Wiltshire Archaeol Natur Hist Mag* **110** 179–90.
- Henry, R, Roberts, D, Grant, M, Pelling, R & Marshall, P 2019 A contextual analysis of the Late Roman Pewsey and Wilcot vessel hoards, *Britannia* **50** 149–84.
- Hingley, R 1989 *Rural Settlement in Roman Britain*, London.
- Kent, J P C 1994 *The Roman Imperial Coinage. Vol. X. The Divided Empire and the Fall of the Western Parts 395–491*, London.
- Kenyon, R F E 1987 The Claudian coinage, in Crummy, N (ed.) *Colchester Archaeological Report 4: the coins from excavations in Colchester 1971–9*, Colchester, 24–41.
- Kenyon, R F E 1991 *The Copying of Bronze Coins of Claudius I in Roman Britain*, unpubl PhD Thesis, University College London.
- Mills, N 1985 Sample bias, regional analysis and fieldwalking in British Archaeology, in Haselgrove, C, Millett, M & Smith, I (eds) *Archaeology from the Ploughsoil Studies in the Collection and Interpretation of Field Survey Data*, Sheffield, 39–47.
- Moorhead, T S N 2001 *Roman Coin finds from Wiltshire*, unpubl MPhil Thesis, University College London.
- Moorhead, T S N 2009 Three Roman coin hoards from Wiltshire terminating in coins of Probus (AD 276–82), *Wiltshire Archaeol Natur Hist Mag* **102** 150–159.
- Moorhead, T S N 2017 The Roman coins, in Roberts, D, Moorhead, S, Robinson, P, Payne, A, Winton, H, Henbrey, N, Bishop, B, Campbell, G, Dungworth, D, Forward, A, Middleton, A, Russell, M, Timby, J, Worley, F, Carpenter, E, Edwards, Z, Linford, N, Linford, P, Vallender, J, Henry, R, Marshall, P, Reimer, P & Russell, N 2017 Recent work on Urchfont Hill, Urchfont, Wiltshire, *Wiltshire Archaeol Natur Hist Mag* **110** 134–170.
- Millett, M & Graham, D 1986 *Excavations on the Romano-British Small Town at Neatham, Hampshire 1969–1979*, Proc Hampshire Fld Club Archaeol Soc Monograph 5, Gloucester.
- Moorhead, T S N & Stuttard, D 2012 *The Romans who Shaped Britain*, London.
- Reece, R 1973 Coinage in the Western Empire, *Britannia* **4** 227–251.

- Reece, R 1988 Numerical aspects of Roman coin hoards in Britain, in Casey, J & Reece, R (eds) *Coins and the Archaeologist*, London, 86–101.
- Reece, R 1995 Site-finds in Roman Britain, *Britannia* **26** 179–206.
- Reece, R 2002 *The Coinage of Roman Britain*, Stroud.
- Rees, S 2011 Agriculture, in Allason-Jones, L (ed.) *Artefacts in Roman Britain*, Cambridge, 89–114
- Richards, J, Naylor, J & Holas-Clark, C 2009 Anglo-Saxon landscape and economy: using portable antiquities to study Anglo-Saxon and Viking Age England, *Internet Archaeol* **25**.
- Robbins, K 2012 *From the Past to the Present: understanding the impact of sampling bias on data recorded by the Portable Antiquities Scheme*, unpubl PhD thesis, University of Southampton.
- Sanna, C & Henry, R *forthcoming* The Finding Pitt-Rivers project – the case for an unrecorded hoard discovered by Pitt-Rivers at Bokerley Dyke, *British Numismatic Journal*.
- Sherratt, A G 1996 Why Wessex? The Avon route and river transport in later British prehistory, *Oxford J Archaeol* **15**(2) 211–234.
- Smith, A, Allen, M, Brindle, T & Fulford, M 2016 *The Rural Settlement of Roman Britain*, London.
- Smith, A & Henry, R 2020 A controlled metal detecting survey: revising the Roman numismatic perspective of Sorviodunum, *Wiltshire Archaeol and Natur Hist Mag* **113** 190–201.
- Spufford, P 1988 *Money and its Uses in Medieval Europe*, Cambridge.
- Taylor, C C 1967 Late Roman pastoral farming in Wessex, *Antiquity* **41** 304–306.
- Van der Veen, M 2014 Arable farming, horticulture, and food: expansion, innovation, and diversity in Roman Britain, in Millett, M, Revell, L & Moore, A (eds) *The Oxford Handbook of Roman Britain*, Oxford, 807–833.
- Walton, P J 2012 *Rethinking Roman Britain: coinage and archaeology*, Wetteren.

Author: Richard Henry, Visiting Fellow, Bournemouth University, Fern Barrow, Poole, Dorset, BH12 5BB. Email: RHenry@bournemouth.ac.uk

© Hampshire Field Club and Archaeological Society