

Barcombe Hill quarries and the Thorngrafton Find

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SUMMARY

Studies of past quarrying activity on Barcombe Hill and of the sources of stone used at Roman Vindolanda, together with petrological analysis and archaeological data, have enabled a local chronology of Roman quarrying to be proposed. The results are at odds with the generally accepted version of the events surrounding the discovery of the arm-purse and coin-hoard known as the Thorngrafton Find. A study of historical records concerning the Find, combined with recently published information about the construction of the Newcastle and Carlisle Railway, suggests that the Find was not made in the large Barcombe quarry but during work in the 'railway sleeper' quarries just south of the summit of the Hill. No evidence was found to support the theory that the Find was made in a former Roman quarry. Thus none of the quarries — and none of the masonry derived from them at Vindolanda or on the Wall — can be dated by reference to the Find.

INTRODUCTION

AS PART OF THE VINDOLANDA STONE SOURCES PROJECT, carried out for The Vindolanda Charitable Trust, an extensive survey has been made of past quarrying activities on Barcombe Hill and adjacent areas of Thorngrafton Common. This paper summarises the results of the survey, interpreted in the light of petrological analysis and archaeological evidence, and highlights the fact that the traditional interpretation of the circumstances surrounding the discovery of the arm-purse and coin-hoard known as the Thorngrafton Find is at odds with much of the physical evidence.

HISTORICAL BACKGROUND

Barcombe Hill is a curving sandstone ridge which occupies much of the northern and western parts of Thorngrafton Common, to the north of Bardon Mill in the South Tyne valley. The summit of the Hill, surmounted by an OS triangulation pillar (NY 7819 6659 — location 1 on fig. 1), is at 279 m OD. The Hill overlooks the Roman fort of Vindolanda about 1 km to the west, and the nearest point on Hadrian's Wall is at Hotbank Crags about 2 km to the north. The earliest evidence of human activity on the Hill is a large ditched enclosure on its northern rim (NY 7830 6682 — location 2 on fig. 1) which is interpreted as a univallate Iron Age hill fort (Jobey 1974, 32). In the north-western corner of the fort is a smaller circular ditched enclosure which surrounds the foundations of an early-Roman signal station (Woodfield 1966) which may have gone out of use around the time the Wall was built.

The Long Stone monument (NY 7786 6641, about 80 m NE of location 7 on fig. 1) was erected in 1784, as a memorial to a quarryman who was killed, but it was later damaged, almost certainly by lightning. Thorngrafton Common was enclosed by Act of Parliament in 1792 and the Enclosure map of 1797 shows that nearly all the present field boundaries were in place by then (Fryer 1797).

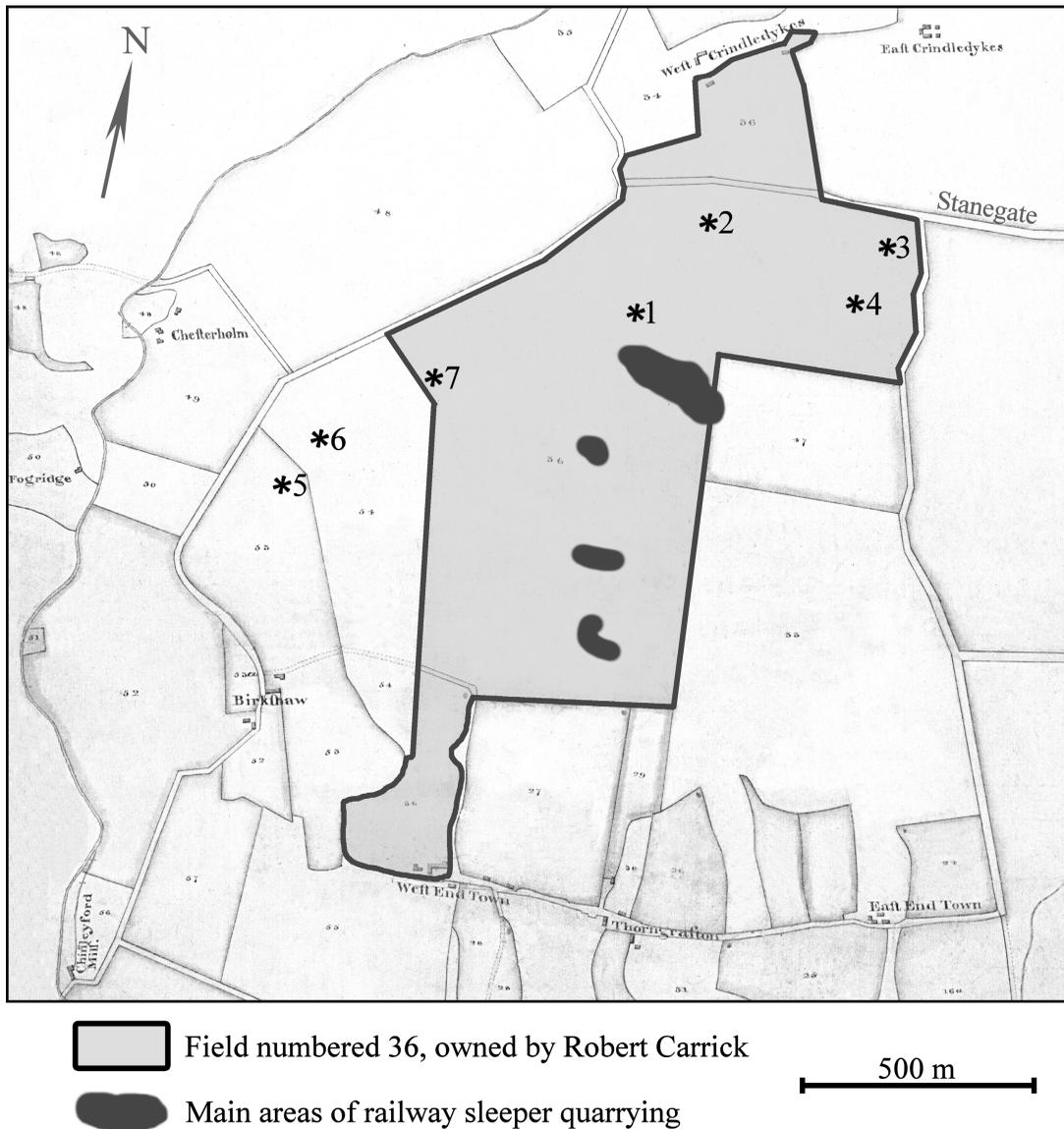


Fig. 1 Part of the 1844 Tithe Award map for Thorngraftern Township, showing the field belonging to Robert Carrick and the main sleeper quarries. Vindolanda is towards the upper left, immediately to the west of Chesterholm. The numbered locations marked with an asterisk, which delineate the main ridge of Barcombe Hill, are numbered as follows:

- | | |
|---|--|
| 1: OS triangulation point | 5: large Barcombe quarry |
| 2: Iron Age hillfort and Roman signal station | 6: small Barcombe quarry |
| 3 and 4: Barcombe East quarries | 7: small quarry adjacent to Long Stone |



Fig. 2 The Thorngrafton arm-purse in Chesters Museum. Photograph © English Heritage and The Clayton Trustees.

On 8 August 1837 some quarrymen, who were working on the Hill in connection with construction of the Newcastle and Carlisle Railway (N&CR), discovered a bronze arm-purse (fig. 2) containing 63 Roman coins of various dates up to the early years of Hadrian. The latest coins were in near-mint condition and the reasonable assumption is that the purse was cached or lost some time during or just after the construction of Hadrian's Wall. The coins were sold in 1929, as explained in the unpublished shelf-notes at Chesters Museum, but the purse remains in the Museum (item 7, case A). The circumstances surrounding the Find form the second part of this paper.

THE VINDOLANDA STONE SOURCES PROJECT

A key research objective of The Vindolanda Charitable Trust's 2008–2012 excavation programme has been to investigate the extent to which the third-century fort and vicus operated as an integrated unit, rather than there being a 'great divide' at the fort wall. It was felt that one line of useful evidence might be the extent to which the same sources of stone were used

at this period for the fort and *vicus*. The Vindolanda Stone Sources Project, led by the author, was set up to investigate this issue. The project has been directed by the Trust's Director of Excavations, Dr Andrew Birley, and professional oversight of, and assistance with, geological aspects of the project have been provided by staff from the British Geological Survey. A survey has been carried out of past quarrying activity in the vicinity of Vindolanda, and petrological analyses of samples from candidate quarries have been compared with similar analyses of masonry samples from different parts and periods of Roman Vindolanda itself. As a result, it has been possible to identify the main Roman quarries and to propose a chronology of their use. The key conclusions of the survey (McGuire 2011; 2013) are summarised here.

Quarry survey

During the project, several quarries were identified on lower ground to the west of Barcombe Hill and it became apparent that at least one of these (at NY 7650 6660) made some contribution to Vindolanda's masonry. However, Barcombe Hill itself provided much the most extensive evidence of quarrying, clearly of several different periods, and it was decided to survey all of these quarries to ensure that no possible Roman sources were overlooked. The key results of this survey are presented here in approximately chronological order.

A line of more or less continuous conical to elongated pits along the northern rim of the Hill may be the earliest evidence of quarrying or mining. The line extends from the eastern end of the Hill (NY 7862 6694), along the northern boundary of the Iron Age hill fort and some way further westwards. Collingwood Bruce's interpretation of these as hiding places for what he called the 'aboriginal Britons' (Bruce 1863, 149) was perpetuated through to the 8th edition of his *Handbook to the Roman Wall* (Bruce 1921). More recently, Woodfield (1966) interpreted them as Roman stone quarries. However, the most plausible explanation is that they are the collapsed remains of bell-pits, or some essentially similar method of working, which exploited a shallow sub-surface seam, probably of iron-rich sandstone. Since bell-pits, as a technique, persisted from prehistory to the early twentieth century, dating them would be a considerable challenge, but an Iron Age or Roman date is certainly possible.

The two Barcombe quarries that overlook Vindolanda are clearly of Roman origin. The famous phallus carving in the smaller quarry (NY 7760 6621 — location 6 on fig. 1) is a typical Roman good-luck symbol. In the large quarry (fig. 3; NY 7754 6609 — location 5 on fig. 1), the north-eastern part of the face seems to have been worked in the Roman period and contains typical Roman wedge-holes and a partially excavated block about 1.2 m (four feet) square. But the most convincing argument that a substantial part of this quarry was excavated in the Roman period comes from a consideration of stone volumes. An estimated 7,500 cubic metres of stone was in use at Vindolanda when its masonry was at its most extensive in the mid third century (McGuire 2011). The large Barcombe quarry is the only nearby source with the capacity to have supplied the majority of this stone. Further to the north east along the ridge, near the Long Stone, is a small quarry (NY 7779 6637 — location 7 on fig. 1) which may also have been a source of Roman stone. Clayton (1859) associated quarrying along the northern ridge of the Hill with the construction of Hadrian's Wall, and drew particular attention to the voussoir stones at Milecastle 37. It is true that stone at two quarried locations (NY 7869 6685 and NY 7865 6672 — locations 3 and 4 on fig. 1) is indistinguishable by eye, even by hand lens, from the stones at the Milecastle. However, such correlations are far from conclusive and detailed petrological examination would be needed to support Clayton's view.



Fig. 3 The large Barcombe quarry, 90 m long, as seen from Vindolanda (top); from the NE (centre), showing the Roman face, 50 m long; and from the SW (bottom) showing, to the right, the face, 40 m long, cut back in 1837 by about 7 m. (Centre photograph courtesy of Ewan Hyslop; top and bottom, author's photographs)

Many small areas of stone extraction are spread across the Common and the most likely explanation of these is that they were sources of stone for drystone walls built during the Enclosure period, mainly the later eighteenth century. Thorngrifton Common includes around 7 km of drystone field-walls, which typically are 1.25 m high and average 0.5 m thick. Assuming 25% of voids in the walls, an estimated 3,300 cubic metres of stone was required for their construction. There is little natural loose stone of suitable size on the Common so the vast majority of this substantial amount of material must have been quarried nearby. Since suitable sandstone outcrops are widespread on the Common, this quarrying is likely to have taken the form of numerous small, shallow workings close to the walls. This expectation corresponds well with what is actually observed. The date of the Long Stone confirms that quarrying was taking place on the Common at this period.

The south-western part of the face of the large Barcombe quarry was subsequently worked back by around 7 m. A nineteenth-century date for this work is confirmed by the presence in the end faces of numerous half-round vertical grooves, typically 1 m long, which appear to be the remains of shot holes used for gunpowder blasting. There are also areas of curved toolmarks typical of nineteenth-century quarrying techniques (Ewan Hyslop, pers. comm.). Local tradition is that this reopening was related to construction of the railway and the most likely explanation is that this was the source of some or all of the masonry for the N&CR in 1837.

On the south-facing slope below the summit of the Hill, and at a number of other places on the Common, is a series of quarries distinguished by the presence of large volumes of waste stone both within and down-slope of the workings. The largest group of these workings (fig. 4) takes the form of a series of at least 10 'bays' worked up-slope, with narrow 'promontories' between them, spread in a disorganised fashion across the slope from NY 7819 6654 to NY 7839 6646 — the most northerly of the darker shaded areas marked on fig. 1. The presence of so much waste stone, mostly in sizes apparently ideal for building, is at first sight very strange. The most likely explanation is that this is where 'sleeper' stones were quarried for the railway in 1837. At this early stage in the construction of Britain's railways the rails were typically laid not on the now-familiar transverse baulks of wood, concrete or steel but on two rows of substantial stone blocks or sleepers, with the rail spacing maintained by iron bars. Evidence from stone sleepers removed from the N&CR and retained for other purposes shows that they were typically 0.6 by 0.6 by 0.3 m (two feet square and one foot deep; Fawcett 2008, 182); the visible blocks all appear to have at least one dimension less than this size and were thus presumably discarded as wasters. Again, an estimate of the required volume is informative. Drawings (Fawcett 2008, 183) show that the sleepers were placed at 0.9 m (three feet) centres, so for 12 km of double-track railway about 53,000 sleepers would have been needed, with a total volume of about 5,700 cubic metres. Whilst no quantitative survey of these quarries has been carried out, which would be very time-consuming given their irregular shapes and the piles of waste, their scale does seem consistent with this estimate of volume.

Petrology

Nearly all the facing stones excavated at Vindolanda are medium-grained sandstones, clearly obtained from sources in local outcrops. The principal petrological factor used to distinguish between the stone sources was the content (as a percentage by volume) of potassium-



Fig. 4 One of the 'bays' of the 1837 railway sleeper quarries, looking SW, showing the piles of waste stone within the bay and in the bracken-covered mounds beyond. The bay is about 10 m wide. (Author's photograph)

containing feldspar (K-feldspar). Crystals of this mineral can be identified by chemical staining of thin sections.

Sandstone units of the Alston Formation, which outcrop around Vindolanda on the lower ground below Barcombe Hill contain virtually no K-feldspar and can be correlated with Vindolanda masonry from the Antonine period (*c.* AD 160–180). Samples from the sandstone units of the Stainmore Formation, which outcrop on Barcombe Hill itself, contain between 1% and 10% K-feldspar. The lowest concentration is in the quarries in the north east of the surveyed area (locations 3 and 4 on fig. 1). A stone from the third-century *vicus* at Vindolanda has been found to have essentially the same petrology as a sample from location 3 (fig. 1). The next lowest K-feldspar concentrations, around 2%, come from the small quarry near the Long Stone and correspond with a masonry sample from the late first-century military bath-house. The small Barcombe quarry yields K-feldspar contents of around 5%. Significant amounts of masonry with this concentration do not appear at Vindolanda until well into the period of the Antonine fort, *c.* AD 180. From this time, until construction of the Severan fort in the first decade of the third-century, this appears to have been the building stone of choice, and so this may have been the main period of use of this quarry. The large Barcombe quarry yields sandstone with the highest K-feldspar concentrations of between 7% and 10%. Stone of this type does not appear in the Vindolanda masonry before the construction of 'Stone Fort 2' by the Fourth Cohort of Gauls from AD 213 onwards. (Stone with lower K-feldspar contents

continues to appear in masonry of this period, but some of this may well be re-used from earlier structures.) It seems that the third century was the period when the main Roman excavation of the large quarry took place. This result is consistent with the logical association of the largest volume of masonry with the largest quarry.

THE THORNGRAFTON FIND

This conclusion — that the main period of the working of the large Barcombe quarry was in the third century — is clearly at odds with the prevailing view that the (Hadrianic) Thorngrafton Find was made in this quarry. In an endeavour to resolve this contradiction, a study has been made of published material about the Find.

Between its discovery and its coming to rest at Chesters in 1858, the Find had a chequered and colourful history which is most comprehensively described in a monograph written in 1871 by the Revd. John Collingwood Bruce (Bruce 1871). The artefacts had been taken by one of their discoverers, Thomas Pattison, who planned to sell the coins on behalf of himself and his companions, but his expectations as to their value proved unreasonably high. Legal action was taken against him on behalf of the Duke of Northumberland, the rightful owner under the law of Treasure Trove as it then operated. Pattison spent a year in debtor's prison at Denbigh, in North Wales, and his death certificate shows that he died at his family home at High Onsett near Blenkinsopp on 14 June 1845. The Find was kept at High Onsett by Edward Pattison, Thomas's brother, who eventually sold it to John Clayton of Chesters in 1858 (Clayton 1859). Collingwood Bruce consistently gives the brother's name as William (e.g. Bruce 1871) but the 1841 census entry for High Onsett confirms that Edward is correct.

Sometime after 1837, a tradition grew up that the Find had been made in a Roman quarry. Many of Collingwood Bruce's accounts of the Find, and that of Clayton, describe a location best interpreted as somewhere on or near the top of the Hill, towards its eastern end. As late as 1921 the 1:2,500 Ordnance Survey map indicated such a location, just south of the triangulation pillar, and the National Monuments Record entry for the quarries in this area (NMR Item 1478887) still gives them as the location of the Find. Increasingly, however, authors have associated the Find with the large Barcombe quarry at the south-western end of the Hill (NY 7754 6609 — location 5 on fig. 1), facing Vindolanda.

The trigger for the Find was the construction of the Newcastle and Carlisle Railway, and some aspects of this are important to a full understanding of the events. Fortunately, Bill Fawcett's recent meticulously researched history of the N&CR (Fawcett 2008) provides much of the necessary information. The final stage of construction, between 1837 and 1838, was from Haydon Bridge to Blenkinsopp. The contract for masonry works (bridges, stations, etc.) on the 12 km (7.5 mile) section between Haydon Bridge and Whitchester Tunnel, near Melkridge, was awarded to Jacob Ritson of Allendale (Fawcett 2008, 65). His contract does not explicitly state where the stone was to be obtained (Fawcett, pers. comm.) but a later contract for the construction of Lambley Viaduct, on the Alston Branch of the N&CR, makes it clear that Barcombe stone was regarded as a suitable material (Fawcett 2008, 127). The N&CR's practice was to purchase stone sleepers quite separately from the masonry contracts (Fawcett 2008, 182).

The first description of the Find comes from an article in the *Gentleman's Magazine* of December 1837, the content of which is attributed to the Revd. John Hodgson (Hodgson 1837). The article reports that the Find was made 'while some workmen were quarrying stone

for the Directors of the N&CR on the top of Borcum', and that the Hill 'overlooks the beautiful green site of the Roman Station of Vindolana.' In the *Numismatic Journal* for January 1838, Joseph Fairless, the only one of these authors known to have visited the site (Bruce 1871, 4), wrote that the Find was made 'about 18 inches under the soil, on a moor near Thorngraston'. In the same journal, three months later, John Fenwick, the Duke's legal representative, reporting on the case against Pattison (Fenwick 1838), wrote that the Find was made 'in a field belonging to Mr Robert Carrick ... in a crevice of the rock'. Fig. 1 identifies the only field on the Common marked on the 1844 tithe map for Thorngraston township (Matthew 1844) as belonging to Robert Carrick Esq. The great majority of the railway sleeper quarries are in this field. The field that contains the large Barcombe quarry is marked as belonging to a Mr John Auburn.

The next description of the Find dates from 1840 and comes from Hodgson's monumental *History of Northumberland* (1840, 289). His description is important to an understanding of what happened later and two key sections are worth quoting in full.

'And a discovery was made, on August 8th 1837 on Borcum, the high brown hill that overlooks Vindolana from the south east, which renders it very probable that the whole, or some part of that station, was built by Hadrian. One of the workmen employed in getting stone for the Newcastle and Carlisle Railway, in an antient quarry, near the pillar, on top of the hill, discovered a small basket or spartula of copper, containing 63 coins ...' After describing the coins and pointing out that their dates imply they were deposited after AD 118, Hodgson went on: 'Many years ago, I noticed that very great quantities of stone had in some antient time been won on the top of Borcum. The rubbish of the quarry is thrown up in ridges in the excavated part, and the hollow lines in the western face of the hill seem to have been worn in conveying stones from it.' He presented much detailed evidence to show that the Wall was built by Hadrian and included in this his interpretation of the dating of the coins and of the Roman quarry in which he claimed they were found.

After purchasing the Find, Clayton produced an article for *Archaeologia Aeliana* (Clayton 1859) in which he wrote that 'a mile south of the Wall runs a ridge of freestone in which quarries have been opened at different points by the Romans for the purposes of building the Wall'. His version of events is that one of these quarries, on Barcombe Hill, was reopened in 1837 and that the Find was made when Pattison was working this quarry for the purposes of the N&CR.

Collingwood Bruce's 1871 monograph is the most comprehensive account of the Find and the essence of his description is similar to Clayton's. However, he gave an important additional piece of information when he wrote that the quarry was reopened because 'a demand arose for sleepers on which to lay the rails'. Although this is the only reference in all the written accounts to the railway sleepers, it is not something Collingwood Bruce could have known without being told, and his likely source would be his friend Clayton who, as legal advisor to the N&CR, had intimate knowledge of all aspects of its construction (Fawcett 2008, 23). Bruce's monograph gives a detailed description of the area where the Find was supposed to have been made. One of the phrases used, 'cavities, half choked with rubbish and earth', is much more consistent with the eighteenth-century quarrying, which probably had already reached its present very overgrown state in the intervening 100 years or so, than with typical Roman work. Like Hodgson, Collingwood Bruce imagined he could see the tracks by which the stone was carried away (Bruce 1871, 2), albeit he was clearly writing about a different part of the Hill. In a similar way, the 3rd (Bruce 1885, 32) to the 9th (Bruce 1933, 32)

editions of Collingwood Bruce's *Handbook* repeat Hodgson's phrase 'on the high brown hill of Borcum', but using the modern spelling Barcombe.

By the mid twentieth century a number of factual errors and contradictions had crept into the story — the exact date and year of the Find, the number and dating of the coins and the identification of the purse at Chesters. Eric Birley (1963) clarified all of these points and his corrections are followed throughout this paper. The year of the find was not fully corrected to 1837 in Collingwood Bruce's *Handbook* until David Breeze's substantial re-organisation and expansion of the text in the 14th edition (Bruce, 2006). The museum notes at Chesters explain that the labels of the Thorngrafton and Birdoswald arm-purses were transposed at one period.

Both Clayton and Collingwood Bruce followed Hodgson in concluding from the dating of the coins that the ancient quarry in which they were found was of Hadrianic date. Indeed, this is a constant theme in all Collingwood Bruce's writings on the subject, from the first edition of *The Roman Wall* in 1851, and it has persisted in all editions of the *Handbook* down to the latest (14th) edition (Bruce 2006, 429). All editions up to the 11th (Bruce 1947, 141) describe the location as 'near the Longstone'. The 12th (Bruce 1966, 133) and 13th (Bruce 1978, 155) editions say 'east of the Longstone'. The latest text includes the phrase 'on the south flank of the hill' and goes on to describe what is clearly the large Barcombe quarry. Other recent books (e.g. Hill 2006, 40; Pearson 2006, 49–51) describe this same quarry. Of particular significance is the section of Paul Bidwell's report of excavations at Vindolanda (Bidwell 1985) that endeavours to reconcile the Hadrianic date of the placement of the arm-purse with dating of masonry at Vindolanda. Bidwell rightly concludes that the large quarry was used for Vindolanda, but also states that the Find was made there. The petrological results given above, in combination with well established dates for the Vindolanda masonry (Birley 2009), make this combination of conclusions very unlikely.

AN ALTERNATIVE INTERPRETATION

The results from the Vindolanda Stone Sources project have made a reappraisal of the circumstances of the Find essential. Three questions must be tackled: where was the Find made; was it in a Roman quarry; and, to the extent that the answers to the first two questions vary from the conventional story, how did the confusion arise?

The first question can now be answered beyond reasonable doubt. The Find was made not in the large Barcombe quarry but in the railway-sleeper quarries on the south-facing slope below the triangulation pillar. Three lines of evidence support this conclusion. Firstly, Fenwick (1838) stated that the Find was made in a field belonging to Robert Carrick, and the 1844 tithe map shows that this field includes nearly all of the sleeper quarries but excludes the Barcombe quarries. Secondly, the arm-purse could not have been cached or lost in the large quarry in Hadrianic times because the combined archaeological and petrological evidence shows that this quarry was the primary source of stone for the large quantity of masonry constructed at Vindolanda in the third century. Finally, Collingwood Bruce described how the Find was made by men winning stone for railway sleepers, and the waste-filled quarries down the slope below the triangulation pillar are the only quarries on the Hill consistent with this activity. Given the likelihood that the arm-purse was deliberately hidden, it is also worth noting that these quarries are in one of the few locations in the area which are out of sight of all known nearby Roman installations, including Housesteads, anywhere on the Wall or Stanegate, Vindolanda and either of the nearby signal stations.

On the question of whether the Find was made in a Roman quarry, no evidence has been found amongst the disorganised sleeper quarries for any form of Roman activity. Of course, the possibility cannot be ruled out that these nineteenth-century quarries completely erased a Roman precursor. However, the bays into which the quarries are divided have significant gaps between them in which evidence of any significant precursor might well be visible. Smaller workings in this area are more likely to be associated with eighteenth-century wall building. Given that it is unlikely that such a valuable object would be cached in a currently- or recently-worked quarry, this lack of physical evidence is quite telling.

Since there is strong evidence that the Find was not made in the generally accepted location and there is no physical evidence it was made in a Roman quarry, the third question also needs to be considered — how did the Roman quarry theory arise? None of the three earliest accounts (Hodgson 1837; Fairless 1838; Fenwick 1838) refers to any kind of old quarry as the site where Pattison was working. Nor do their descriptions point to the area of the large Barcombe quarry as the location. It is not until Hodgson's 1840 volume of his *History* that both of these ideas enter the story. Hodgson was a regular visitor to Chesterholm in Hedley's time and had a great fondness for Vindolanda (Hodgson 1833). He will have seen the quarries on the Hill and the reopening of one of them for the railway. He may well not have been aware that other quarrying connected with the railway was in progress on the other side of the Hill and so he could well have made the assumption that the reopened Barcombe quarry was the site of the Find. From this it was an easy step to the idea that the Find had been cached or lost in an old quarry which, from the dating of the coins, must last have been worked in Hadrianic times. It must also be remembered that the mid nineteenth century was the time when the controversy as to which emperor ordered the building of the Wall reached its height. The old idea that the Vallum had been built under Hadrian and that Severus built the Wall itself, was increasingly being challenged. Hodgson was one of the proponents of the theory that all of the frontier works — Wall, forts, Vallum, etc. — were an integrated whole, built at the command of a single emperor: Hadrian. A substantial part of the 1840 volume of his *History* is devoted to facts about the Wall and culminates with the conclusion that these facts strongly support the Hadrianic theory. He prays his dating of the placement of the arm-purse in aid of this theory, even though he had earlier concluded that the quarry concerned was used for Vindolanda.

Collingwood Bruce was also an eloquent champion of the Hadrianic theory and, through his greater knowledge of where the Find was made, was better placed to associate the supposed Roman quarry with the building of the Wall rather than Vindolanda. It is clear from his re-use of Hodgson's ideas, and even actual words, in many of his writings that he was strongly influenced by Hodgson's account. Given the esteem in which Hodgson was (and still is) held, this is no great surprise. Collingwood Bruce readily took on the Roman quarry theory but, because there are no large old quarries in the area he knew to be correct, he assumed the many small, overgrown eighteenth-century workings to be Roman. Clayton, who may well have provided the information about the location of the Find, likewise adopted the Roman quarry theory.

Like Hodgson, Collingwood Bruce has become a highly respected source on all aspects of the Hadrianic frontier and his legacy has been continued through the many editions of his famous *Handbook*. The Roman quarry theory has persisted through all these editions. However, whereas Collingwood Bruce's descriptions can reasonably be interpreted as referring to the sleeper quarries, most recent accounts (NMR item 1478887 is an exception:

www.pastscape.org.uk) clearly refer, in some cases using photographs similar to fig. 3, to the large Barcombe quarry. The reasons for this shift in emphasis are not clear but may well include an increasing use of Hodgson's 1840 account (see, for example, Bidwell 1985), the absence of evidence for Roman quarrying near the sleeper quarries, and a reduced awareness of the distinction between the two types of railway quarrying.

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