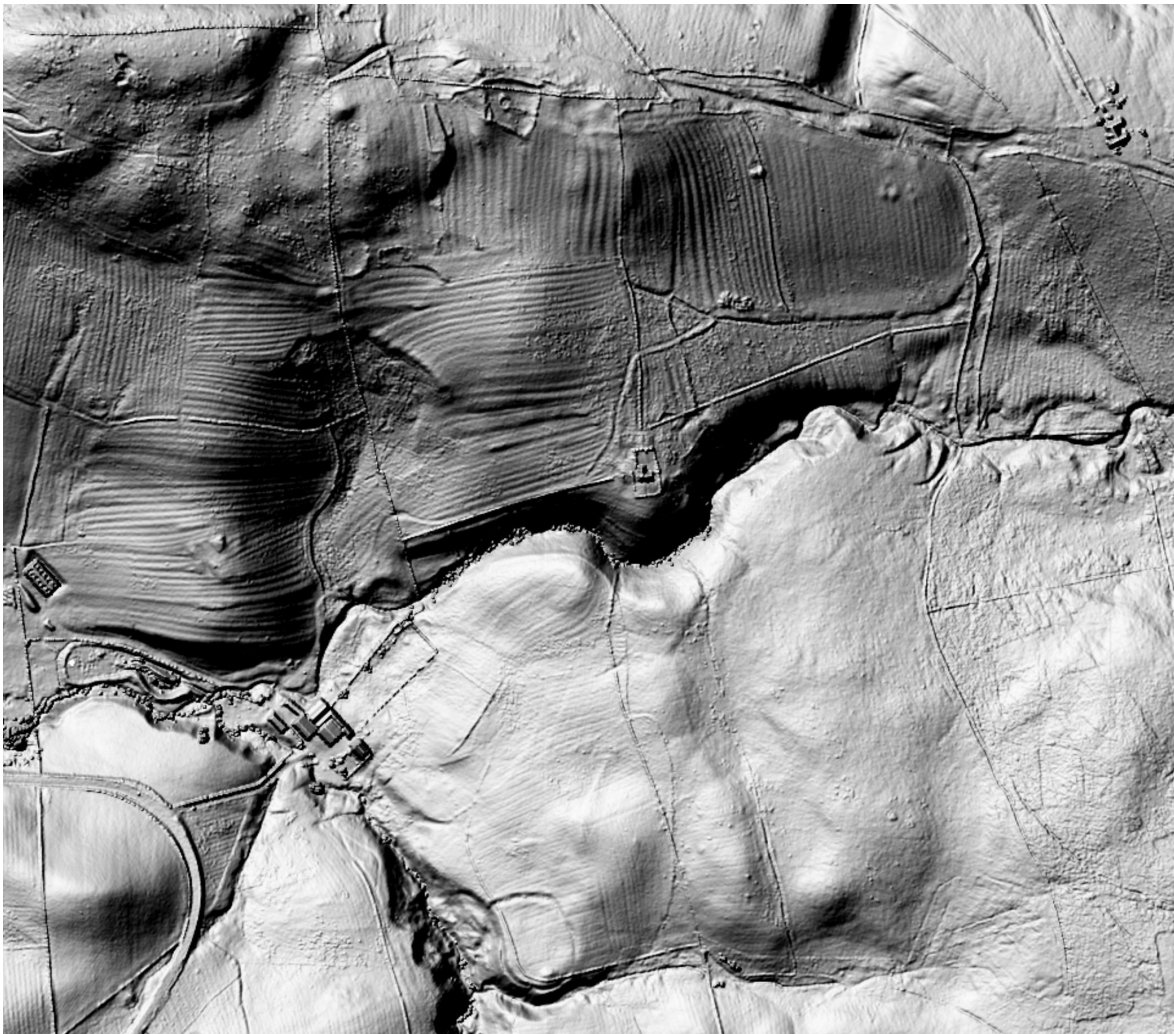# Redesdale
Landscapes through Time

Project Report

January 2022

This document was written by Paul Frodsham (ORACLE Heritage Services). References to it should be structured as follows:

Frodsham, P. 2022. Redesdale - Landscapes through Time. Project Report. *Unpublished report for the Revitalising Redesdale Landscape Partnership and Northumberland National Park Authority.*

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Cover illustration

Lidar imagery of the area around Gallow Hill, c1km south of Elsdon, within this project's Landscape Area 4. This image illustrates the complexity of the archaeological landscape here, and many other areas of Redesdale are no less complex. Such landscapes are usually recorded as collections of individual 'sites', with each allocated to a conventional period such as Bronze Age, Roman or medieval. This is fine as a first, preliminary stage of analysis, but the lidar imagery should allow us to go much further, attempting to identify how individual elements of the landscape relate to others, and how things seem to have changed through time. This project was designed to enable local volunteers to attempt such analysis, with an appropriate level of professional support.

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Acknowledgements

Foreword

By Karen Collins (Revitalising Redesdale Heritage and Engagement Officer)

The germ of the idea that would become the *Redesdale Landscapes through Time* project was seeded by Paul Frodsham, in telling me about a follow-on project idea he had had following the successful *Redesdale Lidar Landscapes* project. Wouldn't it be brilliant, he said, if we could study some of Redesdale's most archaeologically rich areas of landscape and look at how they have developed over time, rather than just focusing on specific sites in their compartmentalised archaeological time periods. From this seed of an idea, a recommendation was suggested in the final *Lidar Landscapes* report, which detailed how this might work. We discussed the idea, I liked it, but I had many other projects planned and it wasn't clear if we could fit this one in to such a busy packed schedule. Then in spring 2020, the Covid-19 pandemic hit and suddenly a project that could be done remotely, without the need for people to leave their homes, started to look a lot more enticing. Still, we had some summer fieldwork planned and this Covid thing would all be over soon anyway, wouldn't it?

By autumn 2020 and the second lockdown, with no end in sight, we decided that we really needed a good remote volunteering project and the *Redesdale Landscapes through Time* project was born. The project kicked off in December 2020, just as a Christmas lockdown went from theoretical nightmare to actual reality. Like its *Lidar Landscapes* predecessor, the *Landscapes through Time* project provided a fantastic, inclusive opportunity for volunteers to get involved in archaeological research without needing to leave their armchairs, but this time it also provided a much-needed lifeline of mental stimulation for those trapped at home and isolated by the pandemic.

Once again, this project owes its success to a small army of dedicated volunteers, who enthusiastically devoted their time to researching this remote corner of Northumberland and giving life to its story. They were aided and abetted once more by Paul Frodsham of Oracle Heritage Services, who put in a huge amount of work and enthusiasm as the Project Consultant, and Ed Hudspeth, at Northumberland National Park Authority who provided technical and digital support. Volunteer Andy Curtis also provided invaluable support in producing GIS maps. Many thanks to all for making this project happen.

This has been yet another fascinating and rewarding project to be a part of and much acclaim must go to Paul Frodsham and all the volunteers for once more delving into Redesdale's past and sharing its rich story for others to discover, wonder at, and enjoy.

1. Project aims and objectives

This project formed part of the *Revitalising Redesdale* Landscape Partnership scheme, funded by the National Lottery Heritage Fund. It was very much an experimental project, designed to provide volunteers who had participated in the earlier *Lidar Landscapes* project to build on their experience of that to undertake detailed surveys of particular landscapes. It was designed and delivered during the Covid-19 pandemic, and a key aspect of it was that participants could work at their own computers at home without the need for workshops or other meetings (other than the final results workshop, discussed below).

Because of the experimental nature of the project, there was no accepted methodology available to adapt from elsewhere. Volunteers were invited to make suggestions at any stage as to how the methodology could potentially be improved, once things were underway. It was hoped at the outset that the basic concept and methodology (a bit like those of the 'Historic Village Atlas', also originally conceived within the Northumberland National Park and subsequently used to good effect by numerous historic village communities throughout northern England) could be developed for use in other places. Given the success of this exercise, there seems no reason why similar projects should not be attempted by groups of volunteers, or indeed enthusiastic individuals, elsewhere.

The *Lidar Landscapes* project (about which a comprehensive report is available on the *Revitalising Redesdale* website) was primarily about recording individual sites from lidar imagery, whereas this project was more about examining how individual sites relate to each other and how such relationships can be used to try and work out how landscapes (and communities) have developed through time.

Six landscape areas were chosen to include places where the lidar imagery demonstrated a visible degree of complexity in terms of development through time, and also to relate to places where other project work was under way or proposed as part of the *Revitalising Redesdale* project. The six areas, shown in Fig. 1, were:

1. High Rochester/Bremenium Roman fort and environs.
2. Rattenraw and Blakehope.
3. Otterburn and Otterburn Camp.
4. Esldon and Raylees.
5. West Woodburn and East Woodburn.
6. Ridsdale and Broomhope.

Detailed maps of these areas are included within the Project Manual.

The key aims and objectives (amended slightly from those set out in the Project Manual) were as follows:

* To engage local communities and volunteers in online archaeological landscape research, gaining new skills and increased knowledge and

contributing to our understanding of the development of Redesdale's landscape.

- To define, research and produce detailed landscape narratives or biographies for key areas in Redesdale (as identified through the Redesdale *Lidar Landscapes* survey), illustrating how landscapes and communities have developed through time.
- To share new knowledge and understanding of Redesdale's landscape with both the local community and a wider audience.
- To enhance the Historic Environment Record with detailed new research.
- To provide outline lists of key research priorities for each area.

Because of the Covid-19 crisis, it was assumed from the outset that progress workshops for volunteers would not be possible; holding these virtually was not really an option as several people attempting to examine and discuss detailed lidar imagery using small screens was not thought feasible. Consequently all feedback and advice was provided by email. While not ideal, this seemed to work well in practice. Volunteers worked in small groups, one for each area, but much of the work was done on an individual basis, with people focussing on topics of particular interest to them.

The individual area overviews should be regarded as the project's main outputs; they are all included within the Project Archive and also available on the *Revitalising Redesdale* website. This report presents a brief overview of the project, including an assessment of how well it worked in practice, along with some brief suggestions for further work.
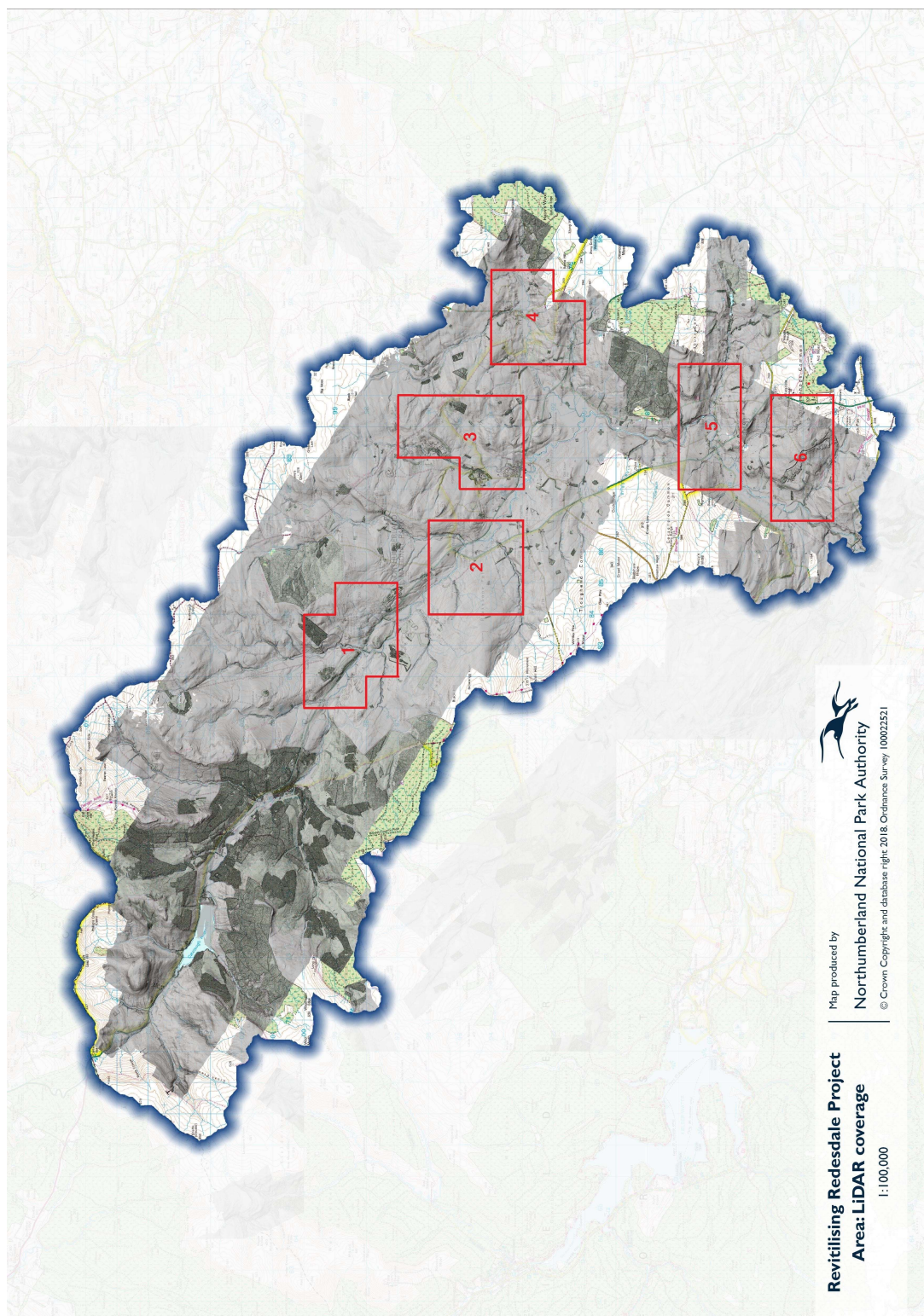
Fig. 1. Landscape Areas studied by this project: 1, High Rochester; 2, Rattenraw and Blakehope; 3, Otterburn and Otterburn Camp; 4, Esldon and Raylees; 5, West Woodburn and East Woodburn; 6, Ridsdale and Broomhope (note - subsequent to the production of this map, Area 6 was expanded by 1km to the W). See project archive for detailed maps of each Landscape Area.

2. Methodology

The full methodology is set out in the Project Manual and will not be repeated in any detail here. To summarise, the work was designed as six phases:

1.   Audit of known sites for each Landscape Area.
2.   Assessment and analysis for each Landscape Area.
3.   Synthesis for each Landscape Area.
4.   Report and recommendations for each Landscape Area.
5.   Results workshop.
6.   Collation of individual Landscape Area reports into a final report with overview.

Phase 1 commenced in December 2020, with the results workshop (having been delayed until the relaxing of Covid restrictions, then postponed due to the Rededsale weather!) eventually held in November 2021. This report was produced in January 2022.

It was stressed from the outset, given the experimental nature of the project, that the methodology would need to be flexible, but work did proceed pretty much in accordance with the above structure, though Phases 3 and 4 were effectively combined into a single phase. Guidance notes were circulated by the Project Consultant in advance of each phase; these stressed the need to undertake work to basic uniform standards, to enable eventual comparisons between areas, but also encouraged participants to think outside conventional boxes in terms of the ways in which things within each area may have related to others, in space and in time.

To facilitate the work, seamless lidar imagery for each project area was produced by Ed Hudspeth. This was the same imagery used for the earlier *Lidar Landscapes* project, but combined into seamless images for each project area (rather than the individual km sqs used in the *Lidar Landscapes* project). During Phase 1, a database (effectively a mini Historic Environment Record) was created for each area by combining results form the *Lidar Landscapes* study with others from the Northumberland HER and other sources. This provided the record for each area that was used for phases 2 and 3. As an example, one of the DSM lidar images for Area 6 is shown here as Fig. 2.

A huge bonus, not included within the original project design, was kindly provided by project volunteer Andy Curtis. Using his specialist IT knowledge, he used GPSVisualizer.com to create an interactive mini-GIS covering the six areas, including details all the sites and finds recorded during Phase 1. The sites were colour-coded according to period, and different symbols were used for sites from different sources (Fig. 3). This system was made available online to all project participants, along with guidance notes provided by Andy. Used alongside the lidar imagery, this proved to be an incredibly useful resource. Several maps showing sites from different periods were generated from it and included within the individual area reports. While the project could have been completed without the GIS, there is no doubt that having it available helped in various ways with the production of the area

reports. That said, it should be stressed that the GIS is wholly reliant on the quality of the data within it, which was in turn reliant on Phase 1 of this project and the preceding *Lidar Landscapes* project.

Within Phase 4, each group produced a provisional report. Comments on these provisional reports were then provided by the Project Consultant, after which they were worked up by volunteers into the final versions now available on the *Revitalising Redesdale* website.

Eventually, the Covid regulations were relaxed and it was possible to hold a results workshop in November 2021. This consisted of presentations by volunteers on each of the survey areas, linked to much discussion. This was the first time that volunteers had seen the results from areas other then their own, and it was interesting to see the variations in content and emphasis between the different presentations. As with all lidar-related events undertaken beneath the umbrella of the *Revitalising Redesdale* project, it overran well beyond its scheduled closing time - demonstrating once again the popularity of this kind of work.

Phase 6 saw the production of this report by the Project Consultant.

Map produced by
Northumberland National Park Authority

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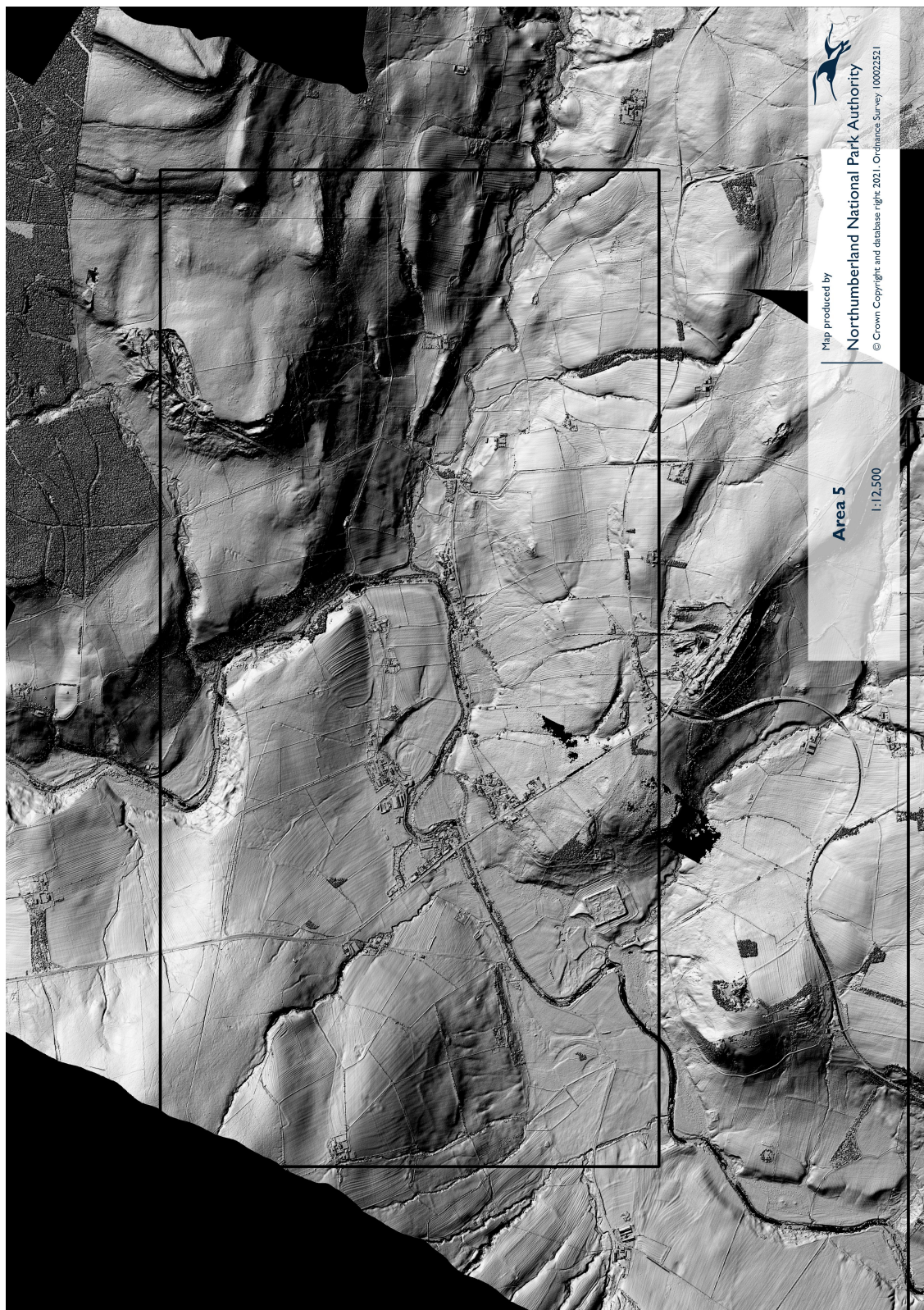
Area 5

1:12,500

Fig. 2. DSM lidar imagery (1 metre resolution, with lighting from the NE) of landscape area 5. (Note: these images show very little detail at A4, but are zoomable to show earthwork features in sufficient detail for this project).
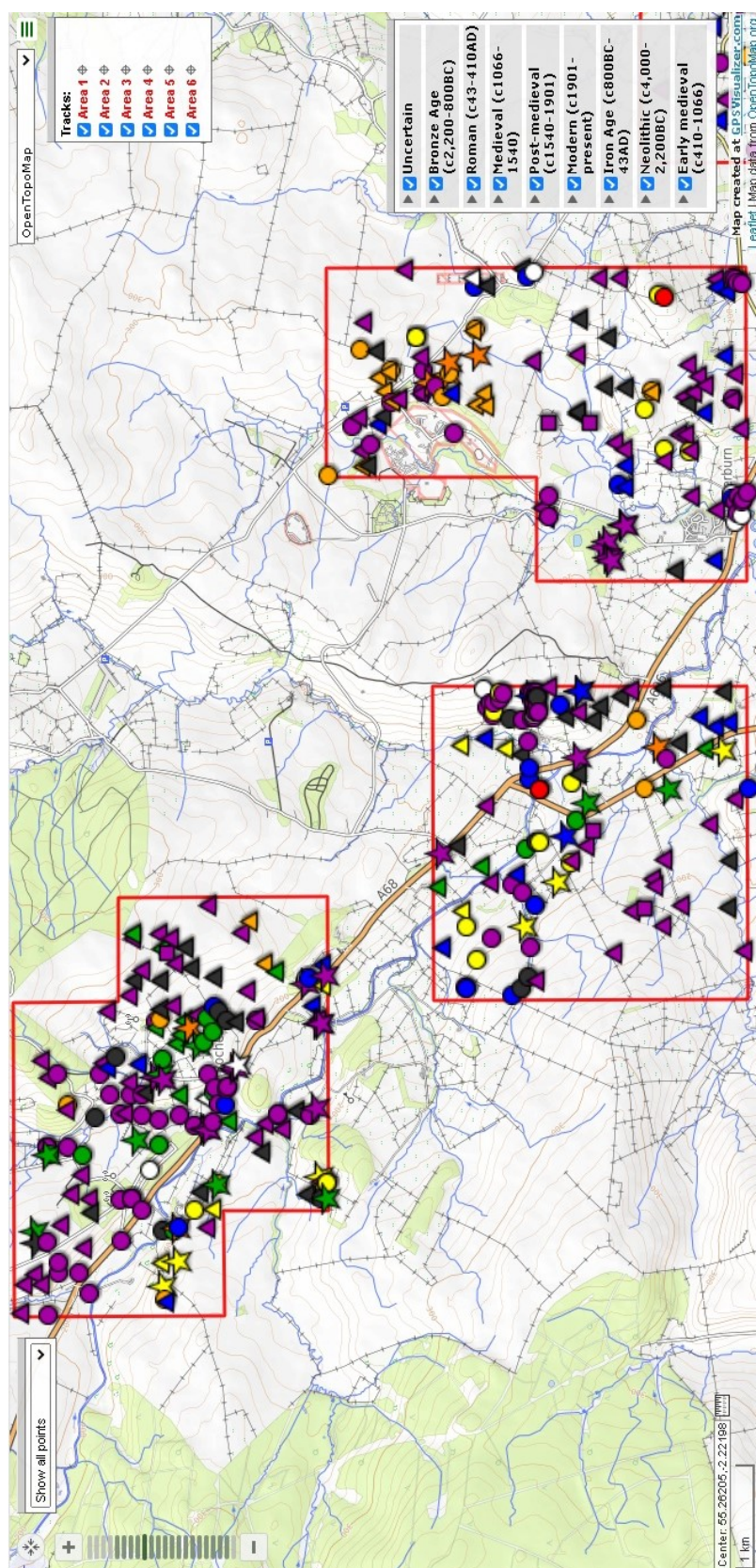
Fig. 3. Screenshot of the online GIS produced for the project by Andy Curtis, showing Landscape Areas 1, 2 and 3.

3.   Results

The results for the six survey areas are presented within the individual area reports. These reports are all structured in accordance with the guidelines provided, but they vary greatly in content due to a combination of the specific archaeological evidence from each area and the particular interests of the volunteers. The volunteers were requested to attempt seamless overviews of their areas in outline, but also to concentrate in as much detail as they wished on any aspects of their areas that particularly appealed to them. As will be clear from the area reports, some spent much time and effort on providing very detailed accounts.

It should be remembered that these six areas represent only a small fraction of the vast Redesdale landscape, but they do include some the busiest and most intriguing surviving archaeological landscapes as represented on lidar imagery. Here, we will discuss, very briefly, the reports produced by the volunteers. No attempt has been made to incorporate illustrations; anyone interested in any of the survey areas should consult the lidar imagery and the individual area reports - all of which are included within the Project Archive. Many relevant illustrations are also included within the *Lidar Landscapes* report.

Throughout the six areas, unsurprisingly, no sites of Mesolithic or Neolithic date were recognised on lidar imagery. Given the location of Neolithic monuments elsewhere in Redesdale, it is possible that some may once have existed within these areas, but no above-ground sign of them has been recorded. The HER includes records of a small number of lithics, including a couple of Neolithic polished axes, that have been recorded over the years, but given the general nature of the landscape it seems inconceivable that this lack of finds represents a real lack of activity throughout all six areas during Mesolithic and Neolithic times. Palaeoenvironmental evidence, including the presence of cereal pollen dated to the Neolithic, proves that people were active in parts of Redesdale, even though archaeological sites and finds remain elusive. Making progress with our understanding of this period will require carefully planned research, designed in the light of knowledge about other parts of Northumberland and elsewhere. Such work may eventually prove people to have been no less active in parts of Redesdale than in other, better-studied parts of the north-east. Given the current lack of knowledge, there is nothing we can say for sure about the ways in which subsequent periods may have been influenced by things that happened during the Mesolithic or Neolithic.

Area 1

Area 1 is centred on the great Roman fort of Bremenium.

The earliest evidence of settlement revealed by lidar imagery is probably an apparent Bronze Age field system at Horsley Plantation, with a possible barrow cemetery nearby (though this could be earlier or later than the field system). The field system seems to include some round houses and should be a priority site for detailed survey.

Several IA/RB settlements survive within Area 1, mostly on the S side of the Rede. Some of these have evidence of apparently contemporary field systems, including cord-rigg. Their chronology is still poorly understood; they seem to straddle late IA - early Roman times, but the extent to which they relate to the Roman military occupation remains unresolved. The site at Woolaw has been excavated. That at Burdhope is particularly important, with the lidar imagery suggesting occupation from late prehistory through into medieval or post-medieval times; it demands a modern survey.

The great fort of Bremenium lies on the line of Dere Street, the line of which is clearly visible in many places on lidar imagery, as is the road eastwards from Bremenium towards the Devil's Causeway. Bremenium has seen much excavation in the past, but there is still scope for much more work here, especially on the vicus, thought to exist all around the fort except in the north. The nearby cemetery of Petty Knowes has been partially excavated; several of its burial mounds are visible on lidar imagery. Several temporary camps along the line of Dere Street can be seen on lidar imagery N of the fort; what role these played, if any, following construction of the fort is not known. Some may relate to the first Roman incursions into this area, and/or to initial construction work on the road.

It is probable that occupation continued at Bremenium following the end of Roman rule, but for how long is not known. Palaeoenvironmental evidence from Brownchesters demonstrates continuing cultivation in parts of Redesdale during the 7th century; it would come as no surprise if the environs of Bremenium are eventually demonstrated to have been one such place. The settlement at Burdhope is another contender for early medieval occupation.

There is no evidence for large-scale medieval occupation at Bremenium, as tended to occur at Roman settlements elsewhere in less isolated locations. But extensive ridge-and-furrow of medieval character survives around the fort, suggesting settlement of some kind. The earthworks at Burdhope include at least seven rectangular buildings of probable medieval date; others can be seen to the north. It is known that a settlement at 'Birdhup' (probably this one) was destroyed by marauding Scots in 1584. This reminds us of the unstable context within which life was lived in medieval Redesdale from the late thirteenth century. It is possible that much of the visible ridge-and-furrow dates from the twelfth and thirteenth centuries, before the onset of cross-border hostilities which led to a more pastoral economy. Place-name evidence suggests the presence of several shielings in and around Area 1, some of which later developed into permanent farmsteads.

At least two bastles were built on the site of the Roman fort at Bremenium, providing a focus for early post-medieval settlement. Subsequently, following the end of Anglo-Scottish hostilities, settlement and cultivation expanded throughout much of Area 1. The report discusses in some depth the development of the post-medieval landscape, including evidence for agriculture and industry (coal mining, quarrying, lime kilns), the development of the transport network, and religion (churches and chapels). A key factor during the twentieth century was the development of the Otterburn Training Area, which had a major impact on the landscape and the local economy. The early 21st century saw the creation of Lord Redesdale's archaeological reconstruction centre, Brigantium, including a substantial IA/RB

settlement based on that at Woolaw, itself now visible as prominent earthwork on lidar imagery.

Area 2

This report combines analysis of the lidar imagery with in depth first-hand knowledge of the local landscape, as its author (Phil Bowyer) has led survey projects here on the ground. Following detailed analysis of individual sites, this report provides an excellent chronological overview discussing the development of the landscape through time, including reference to palaeoenvironmental work.

The report discusses the IA/RB settlements in great detail, incorporating evidence from recent survey and excavation projects and noting the different forms of the sites in relation to earlier published surveys and classifications. All the certain IA/RB sites are located at around the 200m contour, with a few possible sites at lower elevations. The available evidence certainly suggests that some of these sites have pre-Roman origins, but the extent to which occupation extended into the Roman period remains unresolved. The presence of the nearby garrison at Bremenium would certainly provide a context for extensive agricultural production in the area, but further work is necessary if any such relationship is to be conclusively demonstrated. An extensive field system, including cord-rigg, has been recorded around one of the settlement sites at Rattenraw.

Dere Street passes through the area from SE to NW. In the S half of the area it is overlain by the A68, but in the N it survives as a linear earthwork clearly visible on lidar imagery. Adjacent to it, the earthworks of a military camp and a small fort survive at Blakehope, with another camp at Dargues. Exactly when and why the A68 was diverted from the line of Dere Street at Brownrigg, rather than extending northwards towards Rochester, is not known, but this certainly makes sense in terms of the modern road network.

As with the other landscape areas, there is no certain evidence for occupation during early medieval times.

Two well-preserved medieval settlements were recorded during the *Lidar Landscapes* project at Garretshiels, within an ocean of well-preserved ridge-and-furrow. Evidence for medieval settlement elsewhere within Area 2, away from the Garretshiels area, is patchy. Earthworks of a settlement can be seen on lidar imagery at Kellyburn in the NW corner of the area, and a site at Rattenraw has been interpreted, following ground survey, as a possible medieval farmstead that may have developed on an earlier shieling site. Patches of apparently medieval ridge-and-furrow can be seen on lidar imagery in various places, notably around Shittleheugh in the NE, suggesting a substantial population. These field systems can be seen either side of the Rede, but do not extend onto higher ground to the SW.

Post-medieval features include two bastles, but evidence for settlement is sparse, even on the lower ground along the main roads, being restricted to about a dozen farmsteads. There is evidence of extensive coal mining at Brownrigg on Blakehope Fell.

The report concludes with the observation that: 'The degree of continuity of site location across various periods indicates that in pre-industrial eras it is the nature of the landscape itself that is the predominant factor in determination of land usage and habitation.'

Area 3

This is the most detailed of all the reports and covers lots of things in much detail, making reference to other areas where appropriate. It benefits from the inclusion of specially prepared reconstruction paintings by Keith Cooper (there is much scope for further such illustrations, based on archaeological evidence, of sites throughout Redesdale).

The detailed analysis of the nature and location of prehistoric sites (including a table of heights above sea level of sites in all six survey areas) is very useful. This includes analysis of the landscape settings of sites, noting how patterns of vegetation can sometimes vary in relation to past activity, and also including some consideration of water sources and historic woodland (often considered as 'natural' and thus ignored in archaeological surveys, but potentially no less relevant to the historic environment than earthworks). The careful analysis of site locations leads to the suggestion that settlement moved from the higher, northern portion of Area 3 in the Bronze Age down to the lower, southern half in the Iron Age. Checking the validity of this will require further fieldwork, for example to obtain dating evidence and to investigate whether Bronze Age settlements may have been present to the south but have been overlain (and perhaps largely destroyed) by later activity. Such work may also record evidence of Mesolithic or Neolithic activity, even though these have left no surface trace in the form of earthworks.

Lying east of Dere Street and south of the Bremenium to Devil's Causeway road, it is not surprising to see a lack of Roman military sites within Area 3 - a notable contrast with Areas 1, 2, 5 and 6, all of which are traversed by Dere Street. There is also a lack of known sites of early medieval date, as in other areas.

It is possible that much of Area 3 was incorporated within a deer park, associated with Otterburn Tower, for part of the medieval period, and this is considered in some detail in the report. Evidence for medieval settlement and agriculture here is also considered, though there is little that can be said for sure.

There is a vast amount of documentary material relating to post-medieval times throughout Redesdale, and much interesting work can be done relating this to the archaeological record including to earthworks visible on lidar imagery. The potential for such work is particularly well illustrated in the Area 3 report. Themes such as settlement, agriculture, industry, and transport, and the links between them, are all potentially available for such study. There is much variation in the development of post-medieval settlement throughout the six survey areas, much of which is clearly dependent on earlier patterns of settlement and communication, though some developments (such as the development of military training camps in the twentieth century) owes little to past activity. The road network, based on the line of the A68 which largely follows the line of the Roman Dere Street as far north as Horsley, was clearly a key factor in the development of the post-medieval landscape.

Area 4

Several certain and probable IA/RB settlements are recorded towards the SW corner of Area 4, including a couple that are described as 'hillforts'. The area around Gallow Hill (shown on the cover of this report) is particularly interesting and clearly incorporates sites of various periods. While these sites should be clustered here when no others are recorded elsewhere within Area 4 is not immediately clear, though others may have been destroyed by the development of Elsdon and its field system. It is suggested in the report that some of the sites may have lain on an ancient routeway, part of which is visible as a holloway passing through the settlement at Haining Head, that could potentially have linked them with other sites elsewhere (possibly linking into a network of tracks extending as far as Dere Street to the west). Such observations are important, enabling sites to be considered together rather than in isolation.

As with Area 3, this area is located away from the Roman roads and has no recorded Roman military sites.

Area 4 was designed to incorporate the landscape around Elsdon, suspected (though as yet without archaeological evidence) to have pre-Conquest origins. The area around the village is dominated by extensive remnants of the village's ridge-and-furrow field system, which may have obliterated earlier earthworks. The report notes variations in the nature of this ridge-and-furrow within the area, suggesting different periods could be represented. The post-medieval field system, as shown on the enclosure map of 1731, can be seen to overlie the medieval field pattern. The splendidly preserved 12th-century mote and bailey castle, the Motte Hills, shows up clearly on lidar imagery, but little else of medieval date is clearly visible as earthworks. The medieval history of Elsdon (within the context of Anglo-Scottish hostilities) is outlined in the report, linking it where possible to surviving archaeological remains. There is some evidence of medieval or post-medieval coal mining and quarries, but the landscape has clearly always been essentially agricultural.

Area 5

Area 5 is centred on the villages of East and West Woodburn, adjacent to the Rede, extending over adjacent uplands in all directions (see Fig. 2).

The earliest evidence of settlement and agriculture within Area 5 exists in the form of the extensive Bronze Age field systems, visible on lidar imagery at Darney Crags and Staniel Heugh. These are at c250m OD, on land undisturbed by later cultivation, hence their good state of preservation. It is quite possible that similar field systems once existed elsewhere within Area 5, but have been destroyed by later prehistoric or medieval cultivation. Given their excellent state of preservation, these landscapes offer huge potential for investigations into Bronze Age Redesdale.

Several IA/RB settlements have been recorded within Area 5. These cluster between c150 and 200m OD, on lower ground than the BA field systems noted above. This could be due in part to climate change, with wetter and cooler conditions rendering cultivation at the higher elevations unviable. The Area 5 report includes a very useful

analysis of sites throughout the six landscape areas in terms of their heights above sea level. From this it can be seen that the Bronze Age field systems certainly survive at higher elevations (clustering at between 230 and 270m OD) than the IA/RB settlements (c180 - 220m OD) and medieval field systems (c160-200m OD). Most of the IA/RB settlements are surrounded by medieval ridge-and-furrow which has effectively obliterated any sign of earlier field systems that may once have surrounded the settlements.

The great Roman fort of Habitancum sits on the line of Dere Street on the S bank of the Rede, towards the SW corner of Area 5. This must have exerted considerable influence over the entire area while it was occupied. There is some evidence for a vicus, but this may not ever have been very extensive - further work is needed to clarify its nature and extent. It is possible that Roman ironstone mining took place in this general area, potentially managed from Habitancum, but any evidence for this has probably been compromised by large-scale post-medieval mining (notably within Area 6, to the S). N of the fort, to the N of the Rede, the line of Dere Street can be seen on lidar imagery heading through fields towards the line of the A68, which overlies it from Woodhouse northwards. Another important Roman site, possibly from very early in the occupation, is the enormous temporary camp NW of West Woodburn. Now recognised as one of the largest camps in Britain, there is a suggestion that it could occupy a strategic location previously occupied by an earlier 'hillfort' type enclosure, the evaluation and dating of which should be a priority.

It is quite possible that occupation at Habitancum extended into early medieval times, after the end of Roman rule, but we currently have no clear evidence for this, nor of early medieval activity anywhere else within Area 5. Speculation that the cross-base and well at Woodburnhill could be early medieval, and that East Woodburn could have pre-Conquest origins, is fascinating but currently unprovable.

There is documentary evidence for settlement at East Woodburn from the 14th century, and earthworks visible on lidar imagery seem to tie in with this. The adjacent field system seems to integrate medieval elements. Ridge-and-furrow survives at several places within Area 5 and is discussed within the report.

The report discusses aspects of post-medieval settlement (including bastles) and field systems, and notes the importance of droving to the development of the road network. Recent developments, including the water pipeline from Catcleugh Reservoir and quite large-scale quarrying at Darney Quarry, have also left their mark on the landscape.

Area 6

Originally intended to enable analysis of the landscape around the Ridsdale ironworks, this area was constrained by the availability of lidar data. While certainly not an area that would have been highlighted as of particular archaeological interest prior to this project, it can now be seen to have its own very complex archaeological landscape, offering much potential for further analysis.

It contains several certain and possible IA/RB settlements, which (if their occupation extended into Roman times) presumably enjoyed some sort of relationship with Dere

Street, which passes through the area and (along with what appears to be a newly discovered temporary camp at Whitfield) can be seen as an earthwork on lidar imagery. Other evidence of the Roman military presence survives in the form of milestones and altars, the latter no doubt linked to the fort a Habitancum a short distance along Dere Street to the north. Some of these settlements may have been linked to ironstone mining, which developed on a vast scale in post-medieval times. Earthworks of the medieval village of Broomhope are clearly visible on lidar imagery, as is its extensive ridge-and-furrow field system. A unique development which has left its own mark on the lidar imagery is the Ridsdale Range, originally established by Lord Armstrong in the late 19th century and still used today for experiments with explosive ordnance.

4.   Archive

Copies of the digital project archive have been deposited with the Northumberland National Park Authority and the Northumberland HER. The archive consists of the following documents (all pdfs unless stated):

- Project Proposal (October 2020).
- Project Manual (December 2020).
- Guidance notes for volunteers - Phase 1.
- Guidance notes for volunteers - Phase 2.
- Guidance notes for volunteers - Phases 3 & 4.
- Interactive online map - explanatory notes from Andy Curtis.
- Project Report (January 2022)

For each of the six landscape areas:
- Seamless DSM lidar imagery (3 separate jpegs, with lighting from NE, NW and S).
- Seamless DTM lidar imagery (3 separate jpegs, with lighting from NE, NW and S).
- OS map (jpeg).
- Landscape Area Survey Report (LASA) produced by project volunteers in Phase 1 (Excel spreadsheet).
- Archaeological overview produced by project volunteers in Phase 4.

5. Reflections on the methodology

Although this project completed some very interesting survey work that should be of interest to future researchers, as well as to local people, it was stressed at the outset that the benefits to participating volunteers, in terms of experience gained, were just as important as the detail of the results. In the Project Manual it was stated that:

It is important to stress at the outset that the project is as much about the enhancement of volunteer skills and knowledge as it is about the new discoveries and the enhancement of the Historic Environment Record. Participating in it should be challenging but not overly complicated; it should also be good fun!

With this in mind, a discussion about the methodology was held at the results workshop, and volunteers were invited to submit any further observations they might wish to make (including any suggestions they might have had regarding ways in which things could perhaps have been done better) on project evaluation forms. In the event, all comments were positive and nothing negative was received regarding the methodology. Volunteers seem to have found the project very worthwhile, having enjoyed working with the lidar imagery and learning more about Redesdale archaeology. The following comment, included on a project evaluation form, is representative of volunteer feedback:

Thoroughly enjoyed the lock down audit. I had no idea how interesting the A68 was. Exploring the area around High Rochester captivated me. Who would have thought 10 grid squares would occupy my time for 3 months. I travel this road frequently and pride myself in the knowledge I have acquired of these bleak fields and the exciting history they contain.

In retrospect, more emphasis could perhaps have been placed on the detailed recording of apparent aspects of continuity (and discontinuity) between our conventional archaeological periods. This is something that might usefully be considered by anyone seeking to develop the methodology for use elsewhere.

The project would probably have worked even better had it been possible to hold interim workshops at different stages, but despite the restraints imposed by the Covid crisis it seems reasonable to conclude that the experiment was successful. In addition to having provided a worthwhile exercise for participating volunteers, and contributing some new light on the archaeology of Redesdale, the development of a workable methodology was in itself a key project outcome. Hopefully this basic methodology, which could no doubt be enhanced in various ways, will prove valuable to numerous future projects in Northumberland and elsewhere.

6.   Suggestions for further work

As well as presenting the stories of their 'landscapes through time', participants were tasked with creating a list of possible research themes that they thought could shed light on aspects of their areas. Some of these relate to specific places while others are more wide-ranging. Some had already been highlighted in the *Lidar Landscapes* project report, and are further emphasised by this project. Perhaps unsurprisingly, there were many ideas that occurred in more than one of the area reports, suggesting that they could well relate to Redesdale as a whole. The following list (which includes a couple of suggestions added by the Project Consultant) summarises the research priorities identified in the area reports. It is followed by a few suggestions regarding possible ways forward for archaeology in Redesdale.

6.1 Area 1.

6.1.1   Field visits to some sites to check existing HER descriptions and clarify areas of potential confusion and overlap, particularly in the area around Woolaw.

6.1.2   Detailed field survey of apparent BA landscape at Horsley Plantation and nearby possible barrow cemetery.

6.1.3   Detailed survey of the Burdhope settlement (potentially a key site incorporating settlement from late prehistory through into medieval times and beyond).

6.1.4   Landscape survey of the ancient holloway and adjacent sites between Burdhope and Evistones via Woolaw (potentially in combination with 6.1.3).

6.2   Area 2

6.2.1   Assessment of possible BA cairnfield (site 2.103) and of distribution of BA burial mounds.

6.2.2   Further work at Rattenraw (in the light of awaited C14 dates and other analysis of samples from the 2019/2020 excavations), and potentially similar work at other roundhouse settlement sites.

6.2.3   Detailed survey of the medieval settlements and extensive well-preserved field system at Garretshiels.

6.2.4   Detailed investigation, possibly including excavation, of a settlement site at Rattenraw that may have developed from a shieling to a permanent farmstead.

6.3 Area 3

The Area 3 report, while very comprehensive, doesn't actually include a list of suggested future research topics. However, the following may be regarded as potential priorities:

6.3.1   The *Revitalising Redesdale* project has already undertaken fieldwork at prehistoric landscapes at Todlaw and on the southern slopes of Fawdon Hill. The results of this work will no doubt throw up further questions that could lead to suggestions for further fieldwork. The Todlaw landscape is of particular interest in that it appears to display evidence for settlement and agriculture from Bronze Age through into Iron Age times; a comprehensive modern survey here, including the use of lidar imagery, should be a priority.

6.3.2   Accurate modern surveys, potentially including geophysics, of the two 'hillforts' on Fawdon Hill and Camp Hill (very unusual monuments for Redesdale that would be more at home to the north in the Cheviots) would be useful. Depending on results of such surveys, small-scale excavation at one or both sites might provide useful information about their function and chronology.

6.3.3   Work to try and determine the form of the documented medieval deer park associated with Otterburn Tower would be potentially fascinating. The park boundary probably utilised natural landscape features where available, but artificial boundaries (perhaps now partly camouflaged as field boundaries) might reasonably be expected to have existed around at least part of its perimeter. Such work could perhaps be designed as part of a wider initiative to record all elements of the medieval landscape, including ridge-and-furrow.

6.3.4   A search for remains associated with the Battle of Otterburn (1388), including an attempt to define the battlefield, might previously have been listed here as a priority, but recent work undertaken as part of the *Revitalising Redesdale* project suggests that locating the actual site of the battle could be impossible. Perhaps chance finds will one day cast some light on this.

6.3.5   Further work linking documentary evidence with field evidence, building on that incorporated within the Area 3 report, could usefully be done.

6.4 Area 4

6.4.1   Work to better understand specific sites/landscapes of general IA/RB date: Ravenscleugh 'hillfort', Castle Hill, Gallow Hill complex, Haining Head complex.

6.4.2   Work to accurately record and investigate supposedly medieval field systems throughout the area, with a view to establishing their chronology and in particular whether some could have pre-medieval origins. This could potentially throw light on the origins and history of Elsdon.

6.5 Area 5

6.5.1   The Darney Crags BA landscape has been surveyed previously, but a modern survey using lidar imagery and modern survey technology (including potentially some geophysics to investigate 'empty areas' between visible features) would be potentially very interesting.

6.5.2   The Roman camp at West Woodburn, now recognised as one of the largest in Britain, should be surveyed on the ground, enabling the production of an updated version of the inaccurate plan published by RCHME. Ideally, such a survey should also incorporate an assessment of the possible large enclosure and other earthwork features to the E; is this large enclosure something pre-Roman, or just medieval/post-med field boundaries? If the former, perhaps this was an strategically important place in the pre-Roman Iron Age, replaced on a temporary basis by the Roman camp and later by the fort of Habitancum a short distance to the S along Dere Street.

6.5.3   Further work, possibly including geophysics, is needed to assess the size and nature of the vicus and cemetery at Habitancum.

6.5.4   There is a need to better understand the (potentially early medieval) origins and subsequent development of East Woodburn, using a combination of field and documentary research.

6.5.5   Different patterns of potentially medieval ridge-and-furrow have been noted in different places within Area 5; there is potential for these to be surveyed in detail and potentially linked to adjacent settlements of different dates. Work could also be usefully done at the same time on the analysis of post-medieval field patterns.

6.5.6   Work could usefully be done on trying to establish the chronology of ironstone workings in this area, which may have Roman (or earlier) origins.

6.6 Area 6.

6.6.1   The Iron Age/Roman landscape of Area 6 offers much potential for detailed investigation in the field. Detailed survey of the settlement sites (perhaps including geophysics to check for the presence of internal features) would be useful, ideally linked to small-scale, carefully targeted excavation to address issues of chronology. Were all these sites in use concurrently? Were some occupied long after others had been abandoned? Were some reoccupied in later centuries? How do these sites relate to contemporary or later field systems? The possible IA/RB enclosures listed as 'date unknown' should be included in this.

6.6.2   How well is Dere Street preserved in this area, where it is not overlain by a modern road? How has Dere Street influenced developments in the Roman and post-Roman landscapes?

6.6.3 The possible Whitfield (Chesterhope Common) Roman camp should be investigated on the ground to establish its true nature.

6.6.4 Is it possible to suggest possible locations for Roman shrines, linked to natural springs/streams and historic finds of altars? It might be worthwhile working out some possible locations and checking them in the field.

6.6.5 Given the presence of Roman and medieval settlements and field systems within the area, is it possible to predict (and test in the field) where evidence of settlement and agriculture during the early medieval 'missing centuries' might be hiding?

6.6.6 Can different forms of ridge-and-furrow be identified and characterised from lidar imagery? If so, can these different forms be dated? Can they be linked with particular phases of settlements?

6.6.7 What are the origins and chronology of Broomhope medieval village and Broomhope Mill? Both sites should be surveyed in detail (if this hasn't already been done). A Broomhope survey should also extend to the surrounding medieval field system.

6.6.8 What is the chronology of ironstone mining within Area 6? Is there any evidence for it before post-medieval times, for example in Roman times?

6.6.9 Can we find out more about the Ridsdale Range, in Lord Armstrong's time and subsequently, including the date and function of various features visible on historic mapping and lidar imagery?

6.7 Summary

Inevitably, some of these suggestions relate closely to suggestions made at the end of the *Lidar Landscapes* project. Taken together, the results of both lidar projects provide a good base on which to design projects of future work. Themes that cut across the six areas include:

- The need for detailed topographical surveys (possibly including geophysics) at several sites, of various periods, recorded from lidar imagery; potentially an excellent volunteer project.

- Is there a realistic way of furthering our understanding of Mesolithic and Neolithic activity throughout Redesdale, perhaps through a combination of fieldwalking, test-pitting and palaeoenvironmental work?

- Investigating the areas of Bronze Age landscape that survive in places such as Darney Crags (Area 5), Todlaw and Fawdon Hill (Area 3) and Horsley Plantation (Area 1). What is the nature of these places? Are they the earliest permanent settlements/farmsteads in Redesdale? How do they relate to later settlements and field systems? Can the location of known sites be used to predict the probable location of others elsewhere within Redesdale?

- The need to better understand the numerous Iron Age/Roman settlements and their field systems, including their relationship to Roman roads and forts/vici.

- Opportunities to better understand aspects of the Roman military occupation, including further work within and around the vici of Bremenium and Habitancum.

- The absolute priority to try and locate and investigate sites dating from between the end of Roman rule and the Norman Conquest - the so-called 'early medieval period' (encompassing what used to be called the Dark Ages, the Anglo-Saxon period, and the Viking period). Such work could be based on a combined study of the later phases of known Roman sites and early phases of sites currently classed as medieval. The multi-phase complex at Burdhope is perhaps the best site demonstrating potentially continuous occupation from late prehistory through to medieval/post-medieval times.

- Can different forms of ridge-and-furrow be identified and characterised from lidar imagery? If so, can these different forms be dated? Limited test-pitting in different places might help to clarify when different field systems were actually in use; this could potentially be a good volunteer project, but would need some initial trials to assess the likelihood of potentially significant results. Can remnants of other medieval features such as deer parks be identified in today's landscape?

- There is an almost infinite amount of interesting work that could be done to trace the post-medieval development of settlement, agriculture and industry throughout Redesdale over the past 500 years. This would perhaps best be done by focussing on individual areas through time, rather than by focussing on particular site types. Such work will require documentary research as well as fieldwork.

- The investigation of sites recorded on lidar imagery as 'period unknown', in order to try and establish their nature and chronology.

7.   What next?

The following three suggestions are offered regarding possible ways forward for Redesdale archaeology following completion of the *Revitalising Redesdale* programme.

7.1 A local community archaeology group
In order to build on the success of the *Lidar Landscapes* and *Landscapes through Time* projects, and other archaeological work undertaken during the *Revitalising Redesdale* programme, serious thought should be given to the setting up of a local community archaeology group, perhaps linked closely to the Redesdale Society, founded as a long-term legacy of the *Revitalising Redesdale* programme. This could be modelled on NOWTAG to the south of Redesdale and Coquetdale Archaeology to the north, and Altogether Archaeology in the North Pennines; members of these groups have already offered to assist with the setting up and running of a new group in Redesdale. As an independent group it would be free to seek funding from various sources, and could work in effective partnership to deliver projects jointly with universities, schools and other groups active in other parts of Northumberland. It could utilise opportunities offered by social media to bring archaeology to new audiences, in addition to the many people that we already know would be keen to participate in new projects.

7.2 A Redesdale research framework

The results of the *Lidar Landscapes* and *Landscapes through Time* projects, and in particular the suggested research priorities as set out above, provide a sound basis on which to develop an archaeological research framework for Redesdale. This could be as comprehensive or as basic as people want it to be, but its purpose would be to provide a structured list of key research questions against which new projects could be designed and funding sought. It should seek to tie in with other research frameworks where appropriate (eg NERRF - the North East Regional Research Framework; the Northumberland National Park Archaeological Research Framework) but should be specific to Redesdale. It should include research themes that cut across conventional period divisions, merging, for example, late Neolithic and early Bronze Age, or late Iron Age and Roman. In other words, it should seek to explain change through time, not simply to study particular periods in isolation. A key topic could perhaps the search for the 'missing centuries' of the early medieval period, between the end of Roman rule and the Norman Conquest, elusive evidence of which must be hiding somewhere within the Redesdale landscape. The document should be structured in a way that enables it to be updated from time to time in the light of new discoveries or new ways of thinking about the past. It could perhaps be curated by the local group suggested above.

7.3 The environment

The lidar imagery demonstrates the futility of considering evidence of the past in terms of a collection of 'sites', or 'dots on maps' - such sites must be considered within the context of the entire landscape. There is a need to integrate archaeological sites with patterns of landscape change based on palaeoenvironmental evidence. There is some scope to attempt this using existing data, but if possible then the undertaking of new, carefully targeted paleoenvironmental fieldwork, to give a clearer picture of past environments relating to specific archaeological sites and also general landscape change throughout Redesdsale, should be encouraged. Such work offers opportunities for effective cooperation between ecologists and archaeologists, which makes a lot of sense because at the end of the day there is no such thing within Redesdale as an entirely 'natural' landscape', nor an entirely 'artificial' one, but just one landscape which should be subjected to integrated programmes of study designed to better understand its past and help influence its future.

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