



**HISTORIC ENVIRONMENT
AUDIT AND ACTION PLAN**

**ARCHAEO-ENVIRONMENT
LTD FOR THE LIMESTONE
LANDSCAPES
PARTNERSHIP**

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Hawthorn Dene (left),

Forward

"...I happened to read somewhere that is the bounden duty of someone in every locality to write the history of the locality, so that those who come after may learn to be loyal to the community into which they are born..."

...it has been a pleasant pastime, and the necessary research for it has opened out a number of items of information that have never been before published to the general reader."

So wrote James J. Dodds in 1897 in his engaging local history book *The History of the Urban District of Spennymoor: with occasional references to Kirk Merrington, Middleton, Westerton, Byers' Green, Croxdale, and Ferryhill*. While perhaps not the most succinct of titles, Dodds' book does provide an eloquent account of the history and archaeology of one small part of the Durham Magnesian Limestone Plateau while also expressing many wider concerns still very familiar to us today regarding the loss of old and valued buildings and landscapes to the forces of progress and economic development, and also the rights of access to the countryside itself. In the quote above Dodds clearly identifies how the study and care of the historic environment consisting of locally distinctive villages, buildings, archaeological sites and historic landscapes is something we should all have an interest in, the better to appreciate our surroundings and strengthen the communities we live in. We should all be custodians of the heritage we have inherited from the past, the better to pass it on to future generations. Crucially he also mentions that this should be "a pleasant pastime" not a burden!

The East Durham Magnesian Plateau is a wide area stretching almost from Tyne to Tees and from the coast to central Durham with a rich human heritage stretching from distant prehistoric times to the 20th century. While across the area can be found rich cultural diversity, there are also considerable common themes often closely tied to the underlying geology which through quarrying and mining has provided materials to build with, coal to sell and export, and lime to sweeten the land for agriculture for many generations. This interaction between geology, people and the natural world has shaped the landscapes of the area in a unique and particular way.

For over 150 years the history and archaeology of the area has been the subject of study, conservation and in more recent times interpretation. Sterling work has been undertaken particularly by local authorities in recent years to provide access and interpretation for the public to their heritage and to encourage visitors. This report provides an opportunity to review that work and identify ways in which the communities of the Magnesian Limestone Plateau can understand, appreciate and engage with their heritage and so care for and take pride in their historic environment with all of the quality of life and economic benefits this can bring.

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Summary

The intention of this report is to support the aims of the Limestone Landscapes Partnership in delivering its key vision “*Working together in a landscape scale Partnership to make a positive difference to quality of life and to the unique natural environment of the Magnesian Limestone area*”. Over the centuries through farming, building and mining, humans have to a lesser or greater extent affected every corner of England, no landscape in England should therefore be viewed as purely natural. It is essential therefore and a great strength of the Limestone Landscape Partnership that along with geology and natural environment a key understanding of the area’s historic environment is essential to inform the work of the partnership and provide further avenues and opportunities to inspire, engage and work with the communities of the area and in particular support and facilitate historic landscape conservation.

Using the Historic Environment Records for Durham, Tees and Tyne & Wear, this study has brought together evidence for human occupation, exploitation and use of the Magnesian Limestone area since at least 10,000 BC and the end of the last Ice-Age. It has identified a wealth of archaeological sites from prehistoric flint tools to 20th century Cold War radar stations; early Christian burials to coal mines and quarries. In addition to collating existing information for the area, additional research has been undertaken using a variety of sources including aerial photographs and 19th century Ordnance Survey mapping to enhance the records for the area and so provide a sound basis for analysis and future management decisions.

As well as specific individual sites an appraisal has been made of the historic character of the landscape and smaller settlements to assist with future work to protect and enhance the area’s distinctive heritage. This is intended to complement the already existing landscape character descriptions for the area. Risks and threats to this heritage are also identified and discussed.

From the many thousands of historic sites identified, 25 key sites which exemplify the rich heritage of the area are identified and proposed for a combination of investigation, conservation and interpretation through a variety of projects and means of delivery, but all with community participation. In addition to the 25 key sites a number of broader projects have also been identified which cover themes or matters of concern across the whole area and which if approached on a landscape wide scale will have both an increased positive impact and also foster the idea of a wider community and belonging to the Limestone Landscapes area.

The key sites and projects have been chosen to fulfil a number of objectives including research and understanding, but as this is a landscape initiative, they each have been chosen for the positive impact they can contribute to historic landscape conservation in particular.

Acknowledgements

The author would like to thank a significant number of people past and present who have contributed to this report either through their direct involvement, or by past effort and enthusiasm in exploring, researching, celebrating and conserving the rich heritage of the Magnesian Limestone area.

In particular thanks go to the members of the Limestone Landscapes Partnership and to Natural England in the guise of Ingo Schüder for funding the work, to Sue Mullinger of Durham County Council for managing the project and to David Mason (Durham County Council), Robin Daniels (Tees Archaeology), Jennifer Morrison (Tyne & Wear Specialist Conservation Team) and Rob Young (English Heritage) for providing the specialist sub-group to steer the work.

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1.0 Introduction

Running from just south of the River Tyne in a band some 10 miles wide from east to west, down the Durham Coast and sweeping inland just to the north of Hartlepool to finish around Redworth Hill south of Shildon, the Magnesian limestone of South Tyneside, East Durham and the northern Tees Valley is an area of distinctive character which is defined as a National Character Area (NCA). In 2006 Natural England and Durham County Council began an innovative partnership project to look at the best way of managing and conserving the natural and historic character of this area which resulted in the Limestone Landscapes Project. This consists of a wide partnership of local government, national agencies, regional NGOs and charities, parish councils and community groups with a keen interest in the character area, from which is drawn a smaller representative steering group. The extent of the area is shown at figure 1.

In 2008 to support and inform their work, the Steering Group identified that studies of Geology, Access & Green Space, and Historic Environment were required to provide a firm understanding of the Limestone Landscapes Area and inform the partnerships future work in conserving its unique character as seen in its bio and geo diversity, its historic environment and cultural heritage. Archaeo-Environment Ltd (AE) was commissioned by Durham County Council on behalf of the Limestone Landscapes Partnership in December 2008 to undertake the audit and action plan for the historic environment.

This report has a clear focus and builds on a number of past studies which it does not seek to simply reiterate, but to build on their work and move forward. In particular it seeks to provide an easy reference source for the historic environment of the character area composed as it is of archaeological sites, historic buildings and the wider landscape as it has been influenced by human kind. It seeks to identify gaps in our knowledge and understanding of these resources, and finally to identify specific projects for future research, for conservation and for education, and some simple guidelines to preserve the area's distinctive character. Each of these projects can and should be taken up by a wide range of people from universities to primary schools, historical societies to parish councils; indeed it is important that an awareness of what defines the area's distinctive character is instilled across the area if it is to be valued and enhanced in years to come.

The study and conservation of the area's historic character should not be seen as just an interesting past time. The care, study and interpretation of archaeological sites, the informed maintenance of historic buildings and design of new build, the management of field systems, hedgerows, walls, woodlands, parks and village greens; all have a huge part to play in quality of life, educational provision, tourism and economy and the support and development of jobs in traditional skills. In the spirit of James Dodds quoted at the front of this report it is important that each of us can write the history of our locality, the better to preserve it and pass it to the future.

As previously noted this report takes forward much previous work over the last three decades, in particular studies of the archaeology of the Magnesian Limestone by Jones et al. Recent work supported by the Aggregates Levy Sustainability Fund, and the English Heritage Rapid Coastal Zone Assessment of the North-East Coast; it also responds to the issues and agendas put forward in 'Shared Visions, The Regional Research Framework for the Historic Environment'.

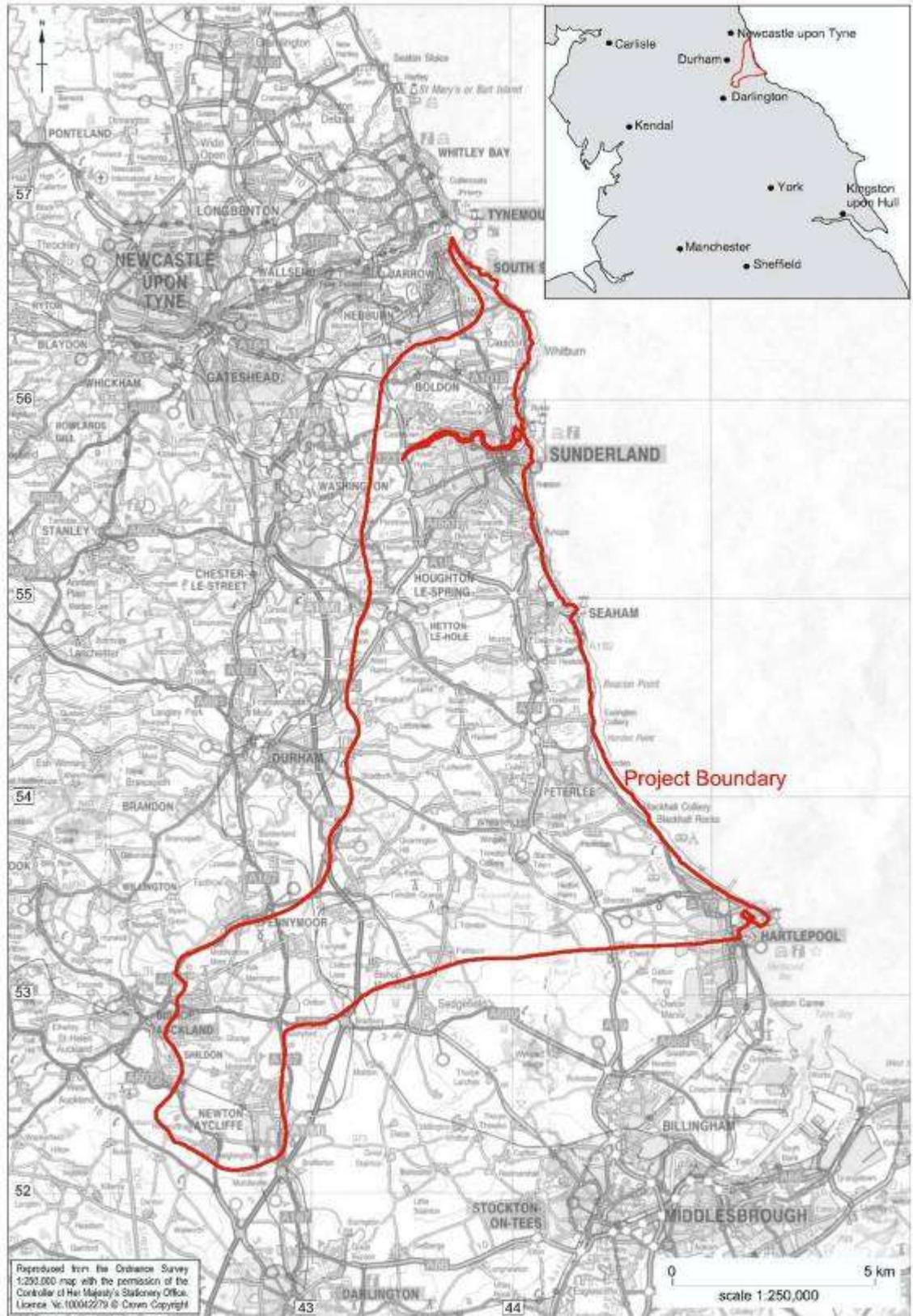


Figure 1 Limestone Landscapes HER Audit and Action Plan : study area

2.0 The Purpose of this Report: Aims & Methodology

2.1 Purpose.

This report is designed to inform and support the work of the Limestone Landscapes partnership in its aims of conserving and enhancing the distinctive character of the East Durham Magnesian Limestone Natural Character Area. The report seeks to do this through a three stage process. Firstly to provide an assessment and synthesis of already existing information held principally in the three¹ local authority Historic Environment Records (HERs), and from this define something of the historic character of the area. Secondly to enhance the available information in a number of key areas already identified from prior assessment as deficient, and then provide this back to the HERs to ensure there is a consistent knowledge base. Thirdly to identify strands of further work and projects which the Limestone Landscape Partnership can take forward both to engage the communities of the area with their heritage and to ensure that unique and distinctive heritage and character is conserved and enhanced.

2.2 Audience

Although there is considerable technical detail within this report the content and presentation have been produced with a wide audience in mind in keeping with inclusive membership of the Limestone Landscapes Partnership (LLP). Printed copies of the report will be sent to each HER and members of the LLP Task Group, it will also be available as a PDF on CD. The report is intended to inform and inspire the work of the partnership and all those interested in its historic environment and cultural heritage.

Historic environment is a broad term used throughout this report and for the lay reader requires a short definition. It is used to foster an understanding that the world we live in and much of the English landscape both in town and country has been created or altered by human activity and that to some degree our daily environment can all be seen as forming the historic environment be it buildings, archaeological sites, parks and gardens, woodlands, hedgerows and coast. Some elements of the historic environment have a much higher profile than others such as listed buildings, but it is the contribution of all manner of built, planned or created things from hedgerows to gardens, quarries to ruined castles which give a place its unique character and mark out the endeavour of past generations and the legacy they have passed to us to care for and hand to future generations. It is however the interaction between the historic environment we have created and the natural environment of underlying geology and the living creatures and plants which have colonised it, that creates an area's broader unique character. These factors are all closely bound together. The geology dictates for instance where coal can be mined, what stone can be used for building and how suitable the soil is for particular crops; as much as human farming activities and the building of towns and villages has altered the distribution of indigenous wildlife.

2.3 Aims

The aims of the report are summarised as follows;

¹ Durham, Tees, Tyne & Wear.

- To produce a dataset of information relating to the historic environment of the Magnesian Limestone Natural Character Area by drawing together information from the HERs for Durham & Darlington, Tees and Tyne & Wear.
- To enhance this dataset by historic map analysis of the 1st and 2nd edition Ordnance Survey maps to identify sites and monuments previously un- recorded on the three HERs.
- To ensure consistency of data across the project area by examination of existing aerial photographic material for that part of the project area not recently assessed by the CDAAP/ALSF or the RCZA and produce new HER entries for those sites identified.
- To use the assembled dataset to provide an assessment of the area's historic environment by historic period and in a similar format to the NERRF and from this provide proposals for future projects which would enhance elements of the historic environment and/or improve current knowledge.
- To review the sites included on the database using a series of set criteria to assess each site's importance and suitability for expressing or exemplifying the character of the area and providing opportunities for access and community involvement.
- From this data analysis and enhancement an action plan is provided identifying a series of research topics, projects and actions to be taken forward to conserve and protect the historic environment of the Magnesian Limestone Character Area through further research and the involvement of communities across the area. In particular 25 key sites are identified on the basis of their value to the historic environment and character of the area taking note of the value geological and public access criteria add to their importance.

2.4 Methodology

This report brings together the work of several previous studies and individual pieces of research on the historic environment of the Magnesian Limestone. In terms of structure it seeks to build on the work of the North East Regional Research Framework for the Historic Environment (NERRF), published in 2006 by adopting a similar methodology and approach but looking in more specific detail at a smaller area. The Limestone Landscapes Project area also overlaps to a considerable extent, particularly to the west with that covered by two earlier studies, firstly the *Magnesian Limestone Escarpment Plan. The Archaeological and historical resources*. (Rick Jones The Bowes Museum 1977) and much more recently 'The Archaeology of Aggregate-producing Areas in County Durham, UK' study undertaken by Archaeological Research Services (Hewitt 2008) and funded by the Aggregates Levy Sustainability Fund and which was awaiting final completion at the time of writing. This project, referred to from hereon as the ALSF project, also closely followed the model of the NERRF and produced a resource assessment of information to identify the current state of knowledge. This was followed by further enhancement of information for the project area largely through study and transcription of existing aerial photographic collections. It then proposed a number of research objectives. Resource assessment and research objectives provided by both the NERRF and ALSF provide substantial foundation for this report which while having a different focus concerning wider historic landscape conservation and community involvement, takes note of and builds on these documents which should be seen as a part of a supportive family of texts for the benefit of the region's historic environment.

2.4.1 Shared Visions: The North-East Regional Research Framework for the Historic Environment (NEERF), a short explanatory note.

It is intended to have documents such as this for each region of England to assess the current state of knowledge and direct future research and investigation. The basic approach taken to this project is derived from the model laid out in *Frameworks for Our Past* (English Heritage. Olivier 1996, 5), which provides for a simple three part format for the framework comprising:

- Resource Assessment: the current state of knowledge and understanding.
- Research Agenda: gaps in knowledge, potential of resource, research topics.
- Research Strategy: priorities and methods for implementing the agenda.

The main Assessment and the Agenda are subdivided into period-based sections, though the agenda also addresses a series of thematic issues. As the Strategy primarily tackles structural issues, it is arranged in an entirely thematic way. The Resource Assessment was used as a basis for drawing up the Research Agenda, noting strengths and weaknesses in the existing resource, and highlighting areas for future research.

The NERRF was published in 2006 and is expected to have a 5 year life before being revised to take into account new discoveries and research and then assess progress on the many initiatives recommended. The NERRF is available as a hard copy publication and can also be viewed and downloaded from the internet at www.durham.gov.uk/research

2.4.2 Limestone Landscapes; Data Collation

Data for this project was provided from three principal sources, the HERs for Durham & Darlington, Tees, and Tyne & Wear. Each HER is based on a different IT platform and although largely complying with national standards for HERs as defined in MIDAS and through standardised lists provided by the Forum on Information Standards in Heritage (FISH), each HER has its own idiosyncrasies due to the history of its development, IT standards of the hosting authorities and the various staff who have developed them over the past few decades. Rather than full HER records only certain core information fields were obtained (Table 1).

HER Number
Description
Site Form/Type
Grid Ref (Easting and Northing)
Period
Listing/Scheduling/Conservation Area/Register of Historic Parks & Gardens

Table 1. Information Fields obtained from HERs

In addition to the local authority HERs data was also obtained for specific landholdings owned by the National Trust and the Ministry of Defence, both of whom also maintain HERs for their estates. These were loaded on to a project database held in MS Access and geo-located on a Geographical Information System (GIS) to produce digital mapping using AutoCad Map 3D and ArcView.

To supplement the HER data, a number of other datasets were imported into the project GIS, in particular landscape and access material. The full list of datasets is as follows.

1. Ordnance Survey 1:50,000 scale raster map tiles
2. Administrative areas of County Durham, Darlington, Hartlepool and Tyne and Wear.
3. Urban areas of the study area, digitised at 1:50,000 scale
4. Study area boundary
5. Ordnance Survey quarter sheet boundaries
6. Historic Environment Record, points (County Durham HER).
7. Historic Environment Record, points & polygons (Tyne & Wear HER)
8. Historic Environment Record, points & polygons (TEES HER)
9. Limestone Landscapes Access and Greenspace Audit information. Polygons. (The Access Company).
10. ALSF/CDAAP Aerial photographic transcription data, lines and polygons.
11. Conservation Area Boundaries (polygons).
12. Listed Buildings (points)
13. Registered Historic Parks and Gardens (polygons)
14. Scheduled Ancient Monuments (polygons)

In addition to the supplied HER data, a search was made of regional journals for significant recent research and finds regarding the project area produced since the publication of the NERRF in 2006. This included the *Durham Archaeological Journal*, *Archaeologia Aeliana* (Journal of the Society of Antiquaries of Newcastle Upon Tyne) and *Archaeology County Durham* annual review.

Further data was included in the form of historic mapping and aerial photography and is described below (2.4.3 and 2.4.4).

2.4.3 Historic Mapping

A significant amount of information on the heritage of the area is contained within available historic mapping. Although there are maps of the historic county of Durham (within which the whole project area lays) from the late 16th century onwards, the first comprehensive coverage of the area with an accurate scale and common point of origin is that provided by the Ordnance Survey. Fortuitously the 1st Edition Ordnance Survey of Durham undertaken at a scale of six inches to one mile was surveyed and published between 1856 to 1861 at a time which captured the largely medieval and early modern settlement and landscape pattern as it began to be encroached upon in a significant way by urban expansion and the growth of industry. The 2nd edition OS of c.1895 provides a further snapshot of the evolving face of the area. The Limestone Landscapes Historic Environment Audit and Action Plan (LLHEAAP) undertook to review both 1st and 2nd edition OS mapping and to identify any sites not already contained either in the HER records, or in the ALSF data. A wide net was cast regarding site types to be identified to include amongst many others quarries, mines, shafts, lime kilns, and boundary stones. Unless of special note buildings were not individually identified as the Limestone Landscapes initiative is principally concerned with the rural not urban landscape and consideration of settlements would have required a different approach and a significant additional amount of resources. Major houses, farms and designed landscapes were however all included. For each site recorded a central point was recorded as a GIS file with a single identifying number. This number was from a numerical sequence drawn from a block of HER numbers provided by each of the three HERs. This primary reference number (PRN) was then referenced in the project database with basic fields of information completed as follows; PRN/Name/Grid reference/Site type/historic period/source-reference.

2.4.4 Aerial Photography

Aerial photographic coverage of the project area taken specifically for archaeological purposes is neither extensive nor comprehensive as has been demonstrated by both the ALSF project (2008) and the Rapid Coastal Zone Assessment (2008). These projects have in part assessed the AP coverage for the western and coastal zones of the Limestone Landscapes area, leaving a narrow and irregular strip between them requiring enhancement to provide uniform coverage of the study area. As with these two earlier projects it was not part of the remit of the LLAAAP to undertake any new aerial photography, but to identify and use existing coverage to allow enhancement of the HER databases. Unlike the ALSF and RCZA projects which provided transcriptions of newly identified sites, this study has only assessed aerial photographic coverage and then provided basic data on any previously unrecorded archaeological sites observed in the form of a central point plotted on GIS and then linked to a basic record on the project database which in turn was allotted an HER number. After discussion with the project steering group and the Aerial Photography Unit of English Heritage, it was felt that transcription of these sites should be undertaken as a separate project and to English Heritage National Mapping Programme standards thereby matching the approach and standards of the ALSF and RCZA. The action to undertake this work is included in the Action Plan (section 11.0) of this report

The aerial photographic collections used in this report are as follows;

1. Durham County Council Archaeology Section.
2. Durham University, Department of Archaeology.
3. Tees Archaeology.
4. Museum of Antiquities/Great North Museum, Newcastle.
5. Google Earth

2.4.5 Data Analysis.

The project database/GIS had a number of fields added to it to allow the ranking of sites by specific criteria. This was principally intended to allow sites to be identified for their value and suitability in fulfilling the objectives of the Limestone Landscapes project and for what contribution they could make to the Key Research Themes and Period Themes of the NERRF.

The criteria identified for assessing each site were scored on a scale of 1 to 5, as follows and with nine separate criteria identified a maximum score of 45 was possible and a minimum of 9.;

- 1 = Very Low
- 2 = Low
- 3 = Moderate
- 4 = High
- 5 = Very High

The criteria were as follows:

Community/Training Potential. Is the site suitable for community participation in further research, or does it have potential to act as project to develop skills in archaeological excavation, surveying, recording; or traditional building or countryside management skills?

Survival/visibility/condition. Does the site survive sufficiently for public understanding and to a suitable extent to permit worthwhile investigation and in a safe condition?

Rarity. Is the site, regardless of access and condition, exceptional or common in its occurrence within the Limestone Landscape project area?

Access. Is the site easily accessible by virtue of public ownership and unhindered access, is it next to or visible from a right of way or open access land, or is it in private ownership and not visible from public rights of way or roads?

Group Value. Is the site part of a group which collectively provides it with importance?

Period Significance. Is the site of particular interest or value to a single historic period?

Landscape Significance. How visible is the site, building or feature, and to what degree does it contribute to the quality and distinctiveness of the Limestone Landscapes area?

Representivity. To what degree is the site, building or feature representative of the character of the Limestone Landscapes area?

Primary Assessment. Score to be used by the report authors to weight certain sites on professional judgement to ensure their profile.

Key and Period themes were taken directly from the NERRF and identified by their letter/number code. NERRF themes were not identified for each individual record, but have been assigned for each of the 25 key sites.

Use of these criteria were fundamental to the process of identifying 25 key sites judged to be either representative of the character of the area or of high importance and potential in understanding and communicating its history.

2.4.6 Identifying 25 Representative Sites

The brief for the project required the identification of 25 key sites which encapsulate the essential features of the historic environment of the Limestone Landscapes area. These may be individual sites or buildings, designed or historic landscapes, conservation areas or groups of cropmarks or indeed sites offering a combination of different aspects. The selection of the sites was intended to inform and focus the work of the Limestone Landscapes Partnership in future project work and was made by first of all scoring all sites on the project data as set out in 2.4.5 above, following which final selections were made by considering the following additional three criteria:

1. A good geographical coverage across the Limestone Landscapes area to ensure widespread opportunities for participation.
2. A good spread across all historic periods and site types.
3. The consideration of expressed enthusiasm and opportunity provided by the interest of local heritage groups.

It had originally been the intention to identifying not only the 'best' 25 sites but also a reserve list of a further 25 'shadow' sites to ensure that should future circumstances remove one of the identified 25 sites that a reserve option was available. As the research for the project developed it became clear that many of the 'sites' identified actually covered wide areas or geographically scattered features and so with one or two exceptions this risk was largely eliminated. The final 25 sites identified then are

presented as the basis for viable projects while requiring some flexibility in their detail and delivery

Once the 25 sites had been identified a **Field Reconnaissance** exercise was undertaken to confirm their potential and any access issues. This also allowed notes to be made of condition and management issues on the site not evident from the desk based audit part of the study. Core information was produced and provided in a set format for each of the sites as set out in section 8.0.

2.4.7 Conservation Issues

The process of auditing the historic environment of the Magnesian Limestone area has highlighted conservation issues particular to each site type, theme and aspect of historic landscape character across the area. This is perhaps most obviously seen on the Limestone Coast where historic sites are subject to coastal erosion and are most sensitive to climate change, while sites on the Limestone Escarpment are most subject to plough damage. A site by site condition assessment is beyond the remit of this study except for the 25 identified sites, but general conservation themes and those specific to the Limestone area have been identified in addition to specific conservation issues on the 25 key sites. These are addressed under both settlement and rural heading in section 9.1 and 9.2. Also included is a synopsis of the English Heritage inspired Buildings and Heritage at Risk surveys undertaken on an annual basis since 1998 for Grade I and II* listed buildings and Scheduled Monuments, and more recently widened to include a more inclusive list of heritage assets. Aspects of the Limestone Landscapes historic environment identified as 'at risk' in national or regional reports were distilled and are presented at section 9.3. A short appraisal is also made of local heritage at risk such as Grade II listed and unlisted buildings many of which provide significant local character or are important to communities, but which currently have no protection or sympathetic consideration for repair or reuse.

2.4.8 Identifying research and interpretation opportunities.

For each site within the project area a rapid assessment was undertaken on the project database to relate sites to the research priorities in the NERRF. In addition, the 25 key sites have in part been chosen for the contribution they can make for research and interpretation. Access is obviously essential to take forward both research and interpretation, and data gathered for the Access Audit² being undertaken in parallel with this report was made available to gauge each site's accessibility in association with PROW³ information from Ordnance Survey Mapping. Finally while this study focuses on the historic environment, the Limestone Landscape project is all about a multi-disciplinary approach and so the final selection of the 25 key sites takes into account known bio and geo diversity and conservation interests to provide a more holistic understanding of the landscape and an opportunity to add value to the historic interest.

2.4.9 Action Plan

The final result of the audit, enhancement and field reconnaissance exercises is the identification of 25 site specific projects and an additional number of thematic projects of value to the wider Limestone Landscapes area. These are provided in a tabulated Action Plan at section 11.0. While many of these projects are of equal value and can be

² The Access Company 2009.

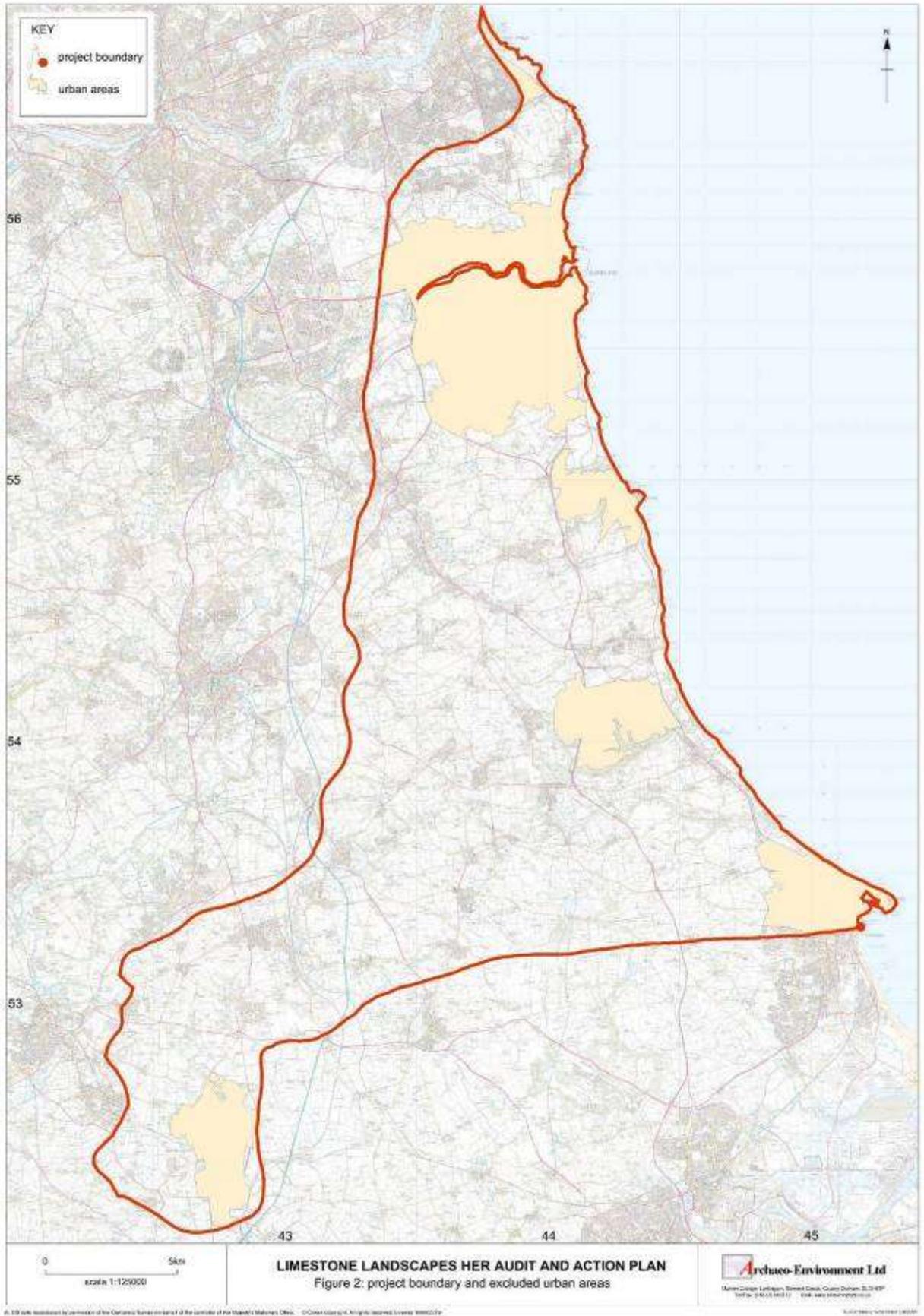
³ PROW Public Right of Way

implemented by a range of partner groups ranging from local communities to specialist interest groups and land managers in partnership with the Limestone Landscapes Partnership, the Action Plan provides some idea of priority particularly in relation to pressing conservation issues. Although the Limestone Landscapes Partnership is well placed to lead on these, it is intended that any group or body with an interest in the area could take up the baton and seek to run with these projects under the umbrella and support of the Partnership if not its direct involvement. The Action Plan also indicates baseline and target scales of achievement for each project.

3.0 The Study Area; Essential Background Information

The Study Area constitutes the Durham Magnesian Limestone National Character Area of some 44200 ha largely running in a band from north to south down the coast of the historic county of Durham starting just south of the Tyne and eventually sweeping inland from Hartlepool to finish west of Newton Aycliffe. (Fig 1). Following local government reform in April 2009 the area is now divided between 5 local planning authorities South Tyneside, Sunderland City Council, Durham County Council, Hartlepool Borough Council and Darlington Borough Council. The area includes arable land often intensively managed within a post medieval enclosure framework of hedgerows and has a wealth of historic sites ranging from cropmarks, former monastic estates, former industrial land, ruined and upstanding industrial archaeological structures, coastal defences from a range of periods, ports and harbours, and a variety of settlements ranging in size from the city of Sunderland to the many small villages of medieval and later origin and which form essential components of local character, several of which are Conservation Areas.

The study focuses on rural land and smaller settlements and excludes detailed consideration of the major modern settlements of Sunderland, Seaham Harbour, Hartlepool and Newton Aycliffe. Here the production of a comprehensive desk top study and audit requires a different methodology and a significant resource input which should they be included would drain the project of resources to the detriment of the rural landscape and small settlements which are the focus of the Limestone Landscapes Partnership. However, when discussing the heritage of the area these larger settlements cannot be ignored and where discussion of an event, site or building is key to understanding the area's historic environment such as the monastery at Monkwearmouth, the windmill at Fulwell or the pumping station at Ryhope then mention is made. The boundaries of those settlements excluded were based on a GIS data set of 'urban areas' provided by Durham County Council compiled originally as part of their landscape assessment work. The boundaries of the LLHEAAP and the excluded urban areas are shown in figure 2.



3.1 Location.

The Limestone Landscapes project area of the East Durham Magnesian Limestone is located in North-East England largely running north to south along the coast of the historic county of Durham. It is shown in figure 1 and described in detail at section 3.3 below. It should be noted however that the boundary was drawn as part of a high level strategic assessment dividing England into broad character areas and as such when viewed on a more local scale can appear ill-conceived in its detail as it severs several medieval villages in two such as Heighington and Elwick, or divorces obvious historic and geological expressions of the Magnesian Limestone such as Shackleton Beacon Iron-Age hill fort from the spur of hillside it is attached to within the boundary by only a few metres. This deficiency should not be dwelt on and is a largely unavoidable product of a high level exercise. This report has taken the approach that historic landscapes rarely have a definitive boundary and that for the purposes of this project the boundary should be seen as fluid with acknowledgement paid to related and relevant sites 'beyond the border'.

3.2 Geology and Topography.

At the same time that this historic environment audit was being prepared the Limestone Landscapes Partnership also commissioned a similar project on the geology of the area. For detailed information on the geology the reader is therefore referred to this document⁴. In summary the area is defined by its geology of Permian Period (299-251 million years ago) rocks, the Magnesian Limestones. These in turn overly earlier rocks of the Carboniferous Period (359-299 million years ago), known more commonly in County Durham as the Coal Measures. Sea cliffs to the east and a prominent escarpment to the west define the area which forms a north-south plateau on average around 100m above sea level over a large part of its range down this eastern coastal strip reaching a locally maximum height of 193 metres above sea level to the north of Cassop. To the north and west it descends into the Wear Valley and to the south to the Tees into generally lower lying ground. A prominent ridge extends south-west through Ferryhill and Kirk Merrington reaching the study area's highest point of 203 metres above sea level at Westerton crowned by the 18th century observatory of Thomas Wright (1711-1786), eminent local mathematician and astronomer credited with first explaining a theory of galaxies and the Milky Way.

3.2.1 Building Materials

The geology provides the area with a good range of building materials and in so doing a large part of its historic character as exemplified in its vernacular buildings. Prior to the development of a widespread railway network in the mid 19th century, 'foreign' materials such as Welsh slate for roofs would have been unknown except perhaps on the most high status buildings as an example of wealth. Even red brick, now possibly the most common building material across the area, only became widespread in its use from the second half of the 19th century when ground up shale, a by-product of coal mining provided an ample source of raw materials. The bricks produced from this material have strength and durability but together with being machine rather than handmade have a uniformity and an inability to weather which has led some commentators to describe their appearance as one of 'unrelieved ugliness'⁵. This is perhaps slightly harsh and liked or loathed, the Victorian and early 20th century locally produced brick of the area is particularly distinctive. Prior to the widespread use of brick the major building material

⁴ Lawrence, D. J. D. 2009.

⁵ Clifton-Taylor, p73 in Pevsner 1990.

was locally produced stone from one of the many quarries scattered across the area. Perhaps the most extensively used of these are the sandstones of the Coal Measures which are most easily accessible to the north-east and west where they can be seen used in high status buildings such as Hylton Castle and St.Laurences' church at Pittington. The Magnesian Limestone itself was also widely quarried as a building stone, but also produced, through burning in kilns, the quicklime necessary to make lime mortar, the mainstay of building construction from the earliest times until the widespread introduction of harder, faster setting Portland Cement in the second half of the 19th century. The Magnesian Limestone is an attractive building stone and was quarried for such at Aycliffe, Ferryhill and Trimdon amongst many places. The strength of the stone varies depending on where it was quarried and is perhaps seen at its best at Castle Eden, or Roker Church (1904-7), a late example of its use. Elsewhere, it can be commonly seen in many older buildings, often with a distinctive eroded, worm-eaten look due to its susceptibility to weathering dramatically. For this reason older houses were originally, and in many cases still are, either lime-washed or rendered to protect the stone. A distinctive element of many house and boundary walls across the study area is the time worn limestone, often patched or extended with harder brick. Roofing materials today almost inevitably use grey Welsh slate, which has replaced local thatch, or lead on high status buildings such as churches. The only exception to this, and seen perhaps most commonly in the south of the area towards the Tees Valley is the use of pantiles.

3.3 Landscape Character.

We live in landscapes that have been changed through the centuries by people modifying their environment. **The European Landscape Convention**, which came into force in the UK in 2007, defines a landscape as 'an area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors'. Our landscapes continue to change and evolve and so do people's perceptions of them.

The Convention highlights the need to identify and assess landscapes. To do this requires an understanding of how landscapes have changed throughout history. This understanding is needed to inform work with local communities or developers to shape continuing landscape change which, while it is inevitable, can be directed and informed to conserve the best and important aspects of local character.

3.3.1 Natural Areas are tracts of land in England with similar types of wildlife and natural features. In many instances they also share similar landscapes. Their boundaries do not follow existing administrative boundaries, but are defined by their wildlife and natural features, their land-use and human history. Natural Areas provide the framework for much of the work of Natural England, the government's agency responsible for the countryside and wildlife, and are used as the basis of their advice to others. Each Natural Area is supported by a description, or *profile*, of its ecological character. Crucially, each Natural Area also has a set of long-term *visionary objectives*, resulting from discussions between Natural England and local bodies concerned with Nature Conservation. These provide direction for nature conservation and guide action plans and strategies such as the Limestone Landscapes Partnership. Natural Areas and Natural Area Profiles have been developed in tandem with *NCA's-National Character Area* descriptions (formerly called *Joint Character Areas-JCAs*). These offer an equivalent subdivision of England on the basis of its landscape, and were developed by the Countryside Commission for similar reasons to Natural Areas - to provide a reasoned approach to the conservation and re-building of the countryside. The two end-products of these approaches - wildlife and landscape - are clearly closely associated, and this has led Natural England to produce a *joint map*. Broadly speaking, a Natural Area comprises one, sometimes more, countryside character areas, as landscape divisions are often

smaller than areas with characteristic suites of wildlife. The Durham Magnesian Limestone Natural Area and Countryside Character Area are, however, contiguous.

The full Natural Area description is available at; http://www.naturalengland.org.uk/Images/naprofile6_tcm6-4124.pdf while the National Character Area description which is of more relevance to this report is explained further below (section 3.3.2).

3.3.2 NCA 15. Durham Magnesian Limestone Plateau

The key characteristics of the Durham Magnesian Limestone Plateau are:

- Gently undulating low upland plateau, of open, predominantly arable, farmland dipping southward and eastward, with incised denes cut into coastal edge on the east.
- Clearly defined west-facing escarpment, dissected by minor streams, with remnant broadleaved woodland, scrub and species-rich limestone grassland on steeper slopes
- Widespread industrial development, with large scale active and disused quarries and landfill sites, often prominent on the escarpment, and areas of derelict, under-used or recently restored colliery land.
- Varied coastal scenery of low cliffs, bays and headlands, rich in wildlife, although despoiled in places by former extensive dumping of colliery waste on beaches and foreshores.
- Strong urban development, dominated by Sunderland and by larger mining towns and villages towards the north and east, contrasting with small villages in rural areas.
- A19 corridor, railway lines and other infrastructure elements.

The full document is available at; http://p1.countryside.gov.uk/Images/JCA15_tcm2-21123.pdf

3.3.3 County Character Areas

In addition to the Natural and National Character areas produced on a country wide scale, Durham County Council has produced a more detailed landscape character assessment and landscape strategy⁶ with finer detail which, while not explicitly covering the Tyne & Wear or Tees Valley parts of the Limestone Landscapes area does provide an exceptionally useful assessment of the majority of the area. The DCC character assessment is GIS based and offers increasingly detailed assessment of the landscape beginning with **County Character areas**, which are sub divided into first **Broad Landscape Types** and then further into **Local Landscape Types** each with detailed mapping and descriptions. The Limestone Landscapes area falls into the County Character Area of *East Durham Limestone Plateau*, with a small area falling into the *Tees Lowlands* on the southern edge.

⁶ Lawson, G DCC 2008

County Character Area; East Durham Limestone Plateau, Key Characteristics

- Gently rolling low plateau dipping southwards to the Tees plain and eastward to the coast where it is incised by steep sided denes.
- Soft Permian magnesian limestones are overlain by thick glacial boulder clays.
- A low west-facing escarpment is dissected in the north by minor valleys separated by well-defined spurs.
- Varied coastal topography of low limestone cliffs and clay slopes, sandy bays and rocky headlands, despoiled in places by the tipping of colliery wastes.
- Open largely arable farmland on heavy clay soils with large fields bounded by low clipped hedges and few hedgerow trees.
- Remnants of magnesian limestone grassland on thin calcareous soils on steeper escarpment slopes and drift free ridges. Limestone plant communities in old quarries.
- Woodland cover is low. Ancient ash woods are found in steep sided limestone denes towards the coast and on the escarpment inland.
- Widespread urban development with scattered mining towns and villages becoming more concentrated towards the coast. Large industrial estates fringe the main settlements.
- Strong corridors of infrastructure in the east and west including major roads, the A1(M) and A19, railway lines and transmission lines.
- Large limestone quarries are prominent on the escarpment. Areas of derelict or recently restored colliery land are found close to towns and villages.
- A landscape heavily influenced by development with a semi-rural or urban fringe character in places.

Description

A low upland plateau of Magnesian Limestone falling eastwards to the sea and southwards to the Tees plain and defined in the west by a prominent escarpment. The soft Permian rocks that underlie the plateau are covered in most places by a thick mantle of glacial drift but outcrop on the escarpment and coast. The escarpment is deeply divided in the north forming a spur and vale landscape which becomes less sharply defined in the south and merges with the low eastern ridges of the Pennine fringe. The topography of the plateau is gently undulating and is deeply incised in the east by coastal denes. The coastline is one of clay crested limestone cliffs, giving way in the south to low dunes, with a foreshore of sandy beaches and rock outcrops heavily despoiled in the north by tipping of coal wastes.

The heavy clay soils that cover much of the plateau support mixed, predominantly arable, farmland in an open rolling landscape of low hedges with few trees. Field patterns are fairly regular in places but more often fragmented by amalgamation into large arable fields. The shallow calcareous soils of the steeper escarpment slopes have a more pastoral emphasis and contain areas of older, more diverse, Magnesian limestone grassland. Tree cover is sparse and there is little woodland. Ancient semi-natural ash woodlands are found in the coastal denes and occasionally on escarpment spurs and valley sides together with areas of scrub.

Old agricultural villages are scattered thinly across the landscape. Buildings are of local limestone or carboniferous sandstone with roofs of slate or clay pan tile and are often set around a village green. Mining towns and villages are more widespread and increase in density towards the coast. Many were built on the site of older villages and some retain an older core. Most have a centre of 19th century terraced housing of brick or stone and slate surrounded by estates of post-war public housing. Settlement edges are often abrupt or fringed by allotment gardens, pony paddocks or industrial estates. The large new town of Peterlee lies in the south. The landscape is locally dominated by industrial

land use and its associated infrastructure including major roads, railways and transmission lines, particularly in the coastal (A19) and central (A1M) corridors.

The landscape has been heavily influenced by coal mining both in its settlement pattern and infrastructure, and in the substantial areas of derelict and recently claimed land in the urban fringe. The escarpment and parts of the plateau have also been affected by the quarrying of limestone. Large active and disused quarries occupy prominent sites on the escarpment. A number of older quarries that have naturally re-vegetated are managed as nature reserves.

The landscape is generally open and broad in scale although the plateau terrain rarely affords long distance views. From the higher ground of the escarpment there are panoramic views across the Wear lowlands to the Pennine fringes beyond, and south across the Tees plain to the Cleveland Hills. The landscape of the plateau has been heavily influenced by urban and industrial development and its scattered mining towns and villages and busy roads give it a semi-rural or urban fringe character in places.

County Broad Landscape Types within the East Durham Limestone Plateau.

- Limestone Escarpment
- Clay Plateau
- Coastal Limestone Plateau
- Limestone Coast

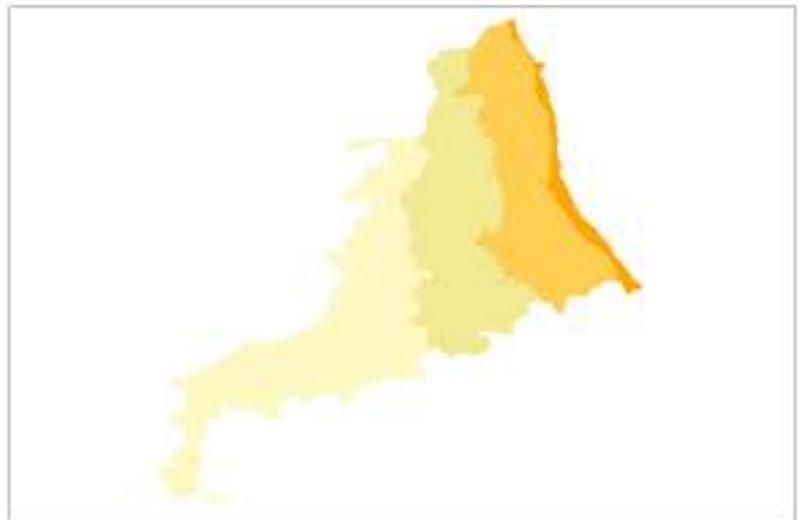


Figure 3. County Broad Landscape Types within the Magnesian Limestone National Character Area.

The East Durham Plateau can be broadly divided into escarpment and plateau landscapes. In the north and to a lesser degree in the south where it merges with the eastern ridges of the Pennine fringe, the Limestone Escarpment is deeply divided by minor valleys giving rise to distinctive 'spur and vale' topography. In its central section it forms a more singular ridge. East of the escarpment, on the Clay Plateau, the limestone is overlain by thick glacial drift and is rarely expressed at the surface. Towards the coast - roughly east of the A19 - it outcrops more frequently in the low rounded hills and steep-sided coastal denes of the Coastal Limestone Plateau. The Limestone Coast, with its low cliffs and dunes, is also identified as a separate landscape type, defined inland generally by the coastal railway line.

The full DCC County Landscape Assessment and its accompanying strategy document can be viewed at:

<http://www.durham.gov.uk/landscape/usp.nsf/pws/landscape+-+welcome>

3.3.4 Historic Landscape Characterisation (HLC).

To complement the natural and landscape work identified above, English Heritage have been working with local planning authorities across England, usually on a county by county basis to produce landscape wide assessments of an area's historic character.

At the time of writing HLC is incomplete for the project area being unavailable for T&W and a 'work in progress' in Durham and Darlington, based with Durham County Council, and in Cleveland as part of the North Yorkshire HLC project.

In addition to HLC, English Heritage have also sponsored work on **an Atlas of Rural Settlement**.⁷ This divides up the country into areas where similar settlement patterns can be identified and to some degree characterises them. The majority of the Limestone Landscapes area falls into one particular category and a related zone to the north both of which share similar characteristics to a great belt of land which sweeps across Northern England running from the Humber to the Tyne and lies between the Pennines to the west and North York Moors and Coast to the East. In terms of its medieval history of nucleated villages around greens surrounded by open fields and which in later times witnessed a decline in rural populations and desertion of many settlements it has much in common with large areas of the English midlands. It differs however in that it has a history of laying to waste the land after the Norman Conquest and subsequent different manorial arrangements and the accessibility of the uplands.

Wrathmell and Roberts have designated the area as The Humber-Tees sub-province and describe it as follows.

'A vast corridor between the uplands of the Pennines and the North York Moors comprises a great fertile lowland and includes the Vale of York and the Tees Lowlands. The area includes many local variations caused by slight differences in terrain. It is a fascinating and complex landscape. Moving northward from the Humber and alluvial wetlands gradually give way to lacustrine clays and sands and gravels, flanked by other varied drifts, and eventually the vale is crossed by low morainic ridges. Further north the vale gradually acquires a central ridge, which reaches a summit north of Northallerton, before descending to the wide plain of the Tees. The northern boundary is seen along the scarp of the Magnesian Limestone in Durham, whose drift covered dip-slope grades southward to the Tees.

A landscape generally dominated by market towns, villages and hamlets, in detail the pattern reflects both the local variations in soils and –in no small measure- the impact of depopulation. Counts of the numbers of nucleations per 25 by 25 km square in both the northern and southern portion of the province produce scores of just over 70, directly comparable with those of the Midlands.

The pattern of dispersed farmsteads intercalated between the nucleations is mainly of post-medieval date, created by movement out of the villages and onto newly consolidated holdings following enclosure. Some, however, are more ancient dispersals, the results of manors, granges and other farmsteads being moved out of villages in the Middle Ages; others have become isolated by the process of village depopulation, which has had a substantial impact in the vale.

This is a complex zone in which the geomorphology is so intricate that no two published studies agree, making generalisation difficult. In many ways this is an area characterised by the classic features of the great village belt of the midlands: strongly nucleated settlements once supported by communal fields with secondary intercalated dispersion. The economic forces bringing depopulation have a marked impact. How then does it

⁷ Roberts and Wrathmell 2000

differ from English Midlands proper? First there is clear evidence for a crucial phase of discontinuity after the devastation (following the Norman Conquest) of 1069-70; this is associated with- but did not necessarily cause- differences in manorial arrangements; second the northern location, together with proximity and access to significant uplands are important elements of the region's historical geography⁸.

3.4 Protected Heritage

In England there are a number of ways in which the historic environment can be protected. In principal these divide into two main mechanisms; either statutory protection and control for a specific building or archaeological site by designating it; or alternatively through the planning process when a site or historic building may be threatened by development work which requires permission from the local planning authority. There is also a third strand in rural areas where stewardship schemes administered by DEFRA can both prohibit works likely to damage archaeological sites and historic buildings and also provide grant funding to assist with their positive management. The distribution of protected heritage in the study area is shown at figure 4.

⁸ Roberts & Wrathmell 2002. 46.

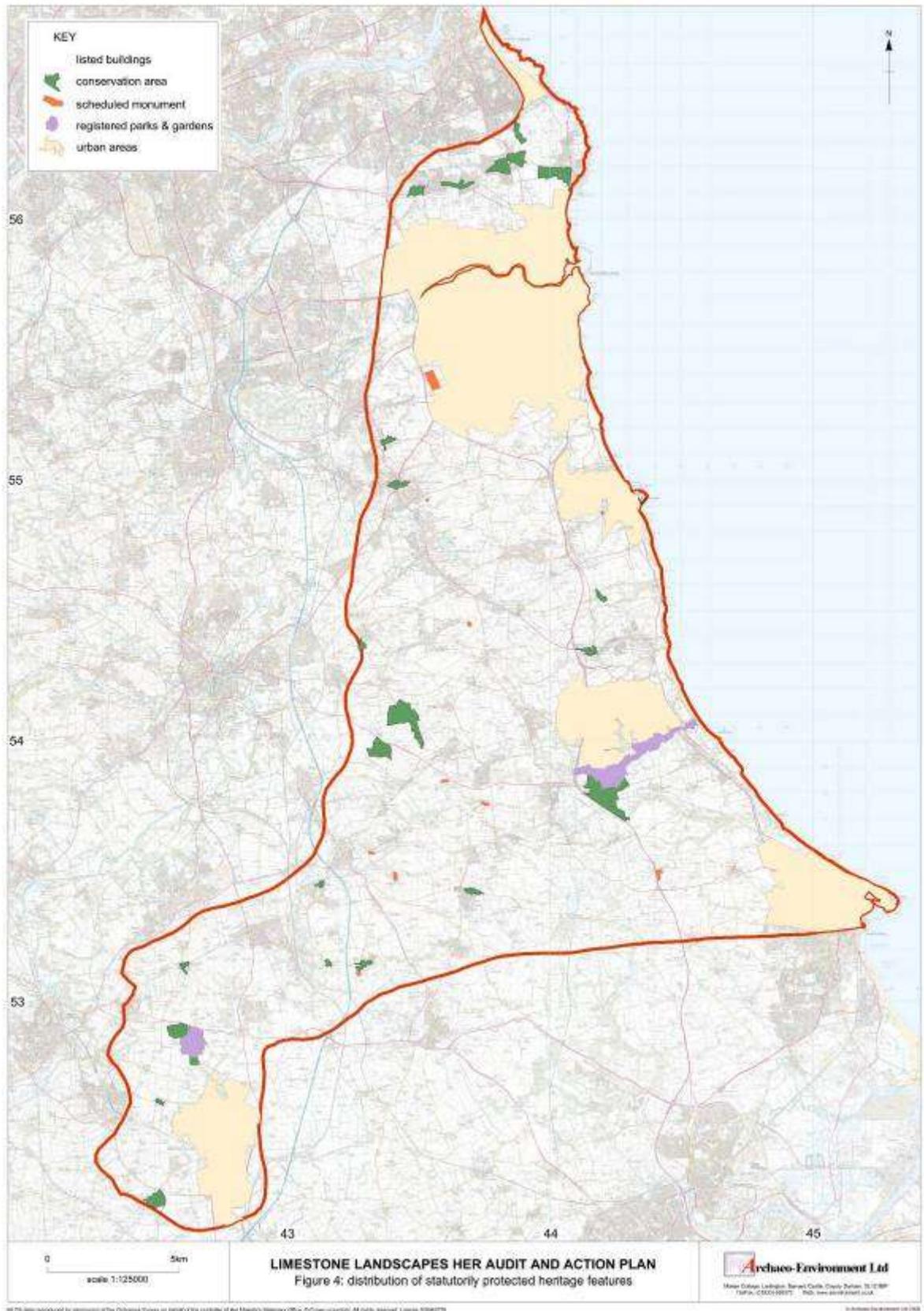


Figure 4. Limestone Landscapes Study Area showing distribution of Statutorily Protected Heritage Features, Conservation Areas (Green), Scheduled Monuments (red) and Registered Historic Parks & Gardens (purple) Listed Buildings are not shown, Urban areas excluded from the study in pale brown.

3.4.1 Statutory Protection

Scheduled monuments are our most valued archaeological sites and landscapes, designated because they are of national importance. Within the Limestone Landscapes area they include prehistoric burial mounds such as Copt Hill, deserted medieval villages such as Sheraton, deposits within villages such as the Anglo-Saxon and later manor house of the De Brus family at Hart and the structures of our more recent industrial and military past such as the monumental colliery winding engine tower at Haswell. Together they are a unique inheritance that tells the story of many generations of human endeavour and, indeed, they provide the only record for millennia during which we have no written history. These evocative monuments also create a unique sense of time and place in the landscape, adding greatly to the distinctiveness of both our towns and our countryside.

Although protected by law under the *Ancient Monuments & Archaeological Areas Act 1979*, scheduled monuments are still at risk from a wide range of processes. Like listed buildings and registered landscapes, they are vulnerable to neglect by owners or development. In addition, they are exposed to several intense pressures quite beyond the reach of the spatial planning system; these include agricultural intensification, forestry and wholly natural forces, such as coastal erosion. It is these pressures which are not controlled by the planning process which pose the greatest threat to the majority of scheduled monuments.

Listing

Buildings of special historic interest which for the most part are still capable of occupation or economic use can be designated as 'Listed Buildings' under the *Planning (Listed Buildings and Conservation Areas) Act 1990*. This does not in principal prevent owners altering or extending them, but does place an extra layer of control requiring consultation with either planning authority or English Heritage if anything other than regular maintenance works are proposed. If proposals are agreed then 'Listed Building Consent' will be granted, which is very similar to a planning permission and may come with conditions requiring specialist recording work or the use of specific traditional materials such as lime mortar or local stone. For a building to be listed it must meet strict criteria and assessment and depending on its importance may be designated as Grade I, Grade II* or Grade II.

Registers

In addition to the statutory designations of scheduling and listing English Heritage also maintain registers of 'Historic Parks & Gardens' and Historic Battlefields'. While these do not provide legal protection they do provide added importance if any development or planning matters are proposed which might affect such registered sites.

There are currently 1595 designed landscapes across England on the English Heritage **Register of Historic Parks and Gardens of Special Historic Interest**. These registered landscapes include private gardens, public parks and other green space, country estates and cemeteries. They are valued for their beauty, diversity and historical importance and may vary in date from medieval to modern. They have no statutory protection but are material considerations in the planning process whose preservation and conservation is largely presumed through local planning policies.

The **Register of Historic Battlefields** was established by English Heritage to encourage local authorities, owners and others to understand the importance of these sites. Currently there are 43 battlefields on the register. As with Parks and Gardens this

designation introduces no additional statutory controls, one of its primary objectives is to encourage policies and other mechanisms that ensure that change and development affecting battlefields is sensitive and appropriate. Another aim is to support initiatives that use improved access, interpretation and education to give a better understanding of battlefields.

Conservation Areas,

Local Authorities have a duty under the *Planning (Listed Buildings and Conservation Areas) Act 1990 Section 69* to review their areas from time to time to consider whether further areas of conservation are called for. The definition of a conservation area is an area with 'special architectural or historical interest, the character or appearance of which it is desirable to preserve or enhance'. Designation of a conservation area gives control over demolition and can be the basis for policies to preserve and enhance all aspects of the character and appearance of the area. Conservation area status is in addition to listing and provides a level of protection to all buildings and trees within the conservation area boundary. Local authorities are also directed through Planning Policy Guidance Note 15, to provide Conservation Area Character Appraisals and Management Plans to provide clear definition of why the area is important and guidance to owners and developers regarding design and materials for repair and new build. There are c.8,000 Conservation Areas in England. Excluding the largest urban areas of the Limestone Landscapes Area, there are 28 Conservation Areas, of which 15 currently have Conservation Area Appraisals. A full list is included in Appendix 4.

World Heritage Sites.

UNESCO the cultural wing of the United Nations maintains a list of World Heritage Sites these may be natural or manmade such as a forest, mountain, lake, desert, monument, building, complex, or city) A world heritage site is a place of either cultural or physical significance.

The UNESCO programme catalogues, names, and conserves sites of outstanding cultural or natural importance to the common heritage of humanity. The programme was founded with the Convention Concerning the Protection of World Cultural and Natural Heritage, which was adopted by the General Conference of UNESCO on November 16, 1972. Since then, 185 state parties have ratified the convention.

As of 2008, 878 sites are listed: 678 cultural, 174 natural, and 26 mixed properties, in 145 states. UNESCO references each World Heritage Site with an identification number; but new inscriptions often include previous sites now listed as part of larger descriptions. As a result, the identification numbers exceed 1200 even though there are fewer on the list.

Each World Heritage Site is the property of the state on whose territory the site is located, but it is considered in the interest of the international community to preserve each site.

The UK has a number of World Heritage Sites including Durham Castle and Cathedral just to the west of the Magnesian Limestone Escarpment and there is currently a proposed bid to include the Anglo-Saxon monastery of Wearmouth-Jarrow on the list in 2010 which will provide the Limestone Landscapes area with its own WHS.



Heritage Protection reform

At the time of writing this report English Heritage and the Department of Culture, Media and Sport had undertaken a review of existing heritage legislation and guidance with the idea of producing improved measures to make systems more integrated and less confusing. A Heritage Bill has been prepared but no parliamentary time has been allocated at present. Further detail can be found on the English Heritage website at; <http://www.english-heritage.org.uk/server/show/nav.8380>

3.4.2 Protection through the planning system.

Only a small proportion of the archaeological sites and historic buildings of England have statutory protection through listing or scheduling. Local planning authorities can however offer protection through the planning process. This relies on documents known as Planning Policy Guidance Notes 'PPGs' and their adoption in local, county and regional structure plans. PPGs 15 and 16 in particular give local planning authorities the powers to request from developers information, surveys and studies on the archaeology and architecture of any site or building they believe may be of interest. Such work is at the cost of the developer and will be used by the planning authority to inform the decision to give planning permission or not and if appropriate impose conditions for further archaeological work or the protection of features and architectural details in-situ.

3.4.2 HERs

Historic Environment Records are maintained by planning authorities to both inform their work as explained in para 3.4.2 above, and to act as a source of information for anyone interested in the history and archaeology of their own area from school children to university academics. Most HERs contain information on many aspects of the historic environment including archaeological sites, past excavations, historic buildings and historic landscapes. This is held on a computer database usually linked to computerised mapping (a GIS-Geographical Information System), and supplemented by a range of books and journals. English Heritage also maintain a National Monuments Record in Swindon which may contain additional information.

The Limestone Landscapes crosses several local authority boundaries and is so covered by three HERs. Currently two of these, Durham and Tyne & Wear can also be searched on line through the internet. Contact details for each HER are provided below;

Durham HER:

Archaeology Section,
Regeneration and Economic Development,
Durham County Council
The Rivergreen Centre
Aykley Heads
Durham
Co. Durham
DH1 5TS

email: archaeology@durham.gov.uk
Tel: 0191 370 8712
Fax: 0191 370 8897
Web: <http://www.keystothepast.info>

Tyne & Wear HER:

D. Heslop or J. Morrison,
Planning Department,
Newcastle City Council,

Civic Centre,
Barras Bridge,
Newcastle upon Tyne,
Tyne & Wear. Web:

Tel: 0191 2816117
e-mail: david.heslop@newcastle.gov.uk
<http://www.newcastle.gov.uk/Sitelines>

Tees HER:

Tees Archaeology
Sir William Gray House
Clarence Road
Hartlepool
TS24 8BT

Tel. 01429 523 455
fax. 01429 523 477

email. info@teesarchaeology.com or tees-archaeology@hartlepool.gov.uk

Web site. <http://www.teesarchaeology.com>

Limestone Landscapes Historic Environment Audit and Action Plan

	Total number in Magnesian Limestone National Character Area	Total Number in LL Project Area (excluding the urban areas identified at section 3.0 and figure 2).	Durham & Darlington		Tees		Tyne & Wear	
			Rural	Urban	Rural	Urban	Rural	Urban
HER Entries								
Start of Project	2640	1358	944	340	173	313	241	629
End of Project	3578	2296	1741		195		360	
Listed Buildings	675		233		55		387	
Scheduled Monuments	28	23	14	1	4	2	5	2
Conservation Areas	38	28	18	20	1	2	9	16
Registered Parks & Gardens	7	2	2	0	0	0	0	0
Registered Battlefields	0	0	0	0	0	0	0	0
World Heritage Sites	1 (candidate)		0	0	0	0	0	1 (candidate)

Table 2 *Limestone Landscapes Historic Assets. HER entries and numbers of protected Heritage statutory designations.*

4.0 A Brief Overview of Previous Archaeological Work.

More specific references to previous research work are mentioned in the following chapter which looks at the historic environment of the Limestone Landscapes area on an historic period by period basis from earliest times to the present. It would seem useful however to provide the reader with a brief overview of previous work to provide an understanding of how archaeological study is undertaken and how this has changed over the years.

In England the earliest interest in the remains of the past was often expressed by historians and surveyors from the 16th century when eminent national figures such as William Stuckley travelled the country describing and noting major monuments of the past, but often with little idea of how old they really were. These early **antiquarians** focussed on major towns and sites and so the East of Durham figures little in their writings at this time. From the late 18th and early 19th centuries county based historians such as Robert Surtees (himself a resident of Bishop Middleham and Mainsforth within the Limestone Landscapes area), and William Hutchinson (1785), began writing more detailed accounts of Durham itself and we have the first proper accounts of major monuments in the Limestone Landscapes area. Their work describes fortifications such as Daldon Tower and Hylton Castle and the major villages such as Easington. Surtees also notes several prehistoric monuments such as the now lost Fairies Cradle at Hetton. The focus of much of their work, and indeed later 19th century writers such as MacKenzie & Ross (1834) and Fordyce (1857) with their histories of the historic county of Durham, was however on the genealogies of the county's great historic families, the Bowes, Lambtons, Pembertons and the like with large parts of their books devoted to long and complex family histories, often with the books dedicated to, or sponsored by, members of those families. Interest in the study of the past grew throughout the 19th century both in the county gentry and aristocracy and also the wider population with the founding of the Society of Antiquaries of Newcastle Upon Tyne in 1812 (the first such county society outside London), and the Architectural & Archaeological Society of Durham & Northumberland in 1862. Such societies held regular lectures, published an annual journal and arranged visits to particular towns, villages and monuments and did much to widen and popularise the study of the past and its remains including the work of such eminent nationally important figures as Canon William Greenwell who first excavated the Neolithic and later burial mound at Copt Hill above Houghton-Le-Spring on the Magnesian Limestone escarpment.

By the late 19th century the recording of archaeological sites and historic monuments had also become a national concern. The advent of the Ordnance Survey provided the first comprehensive and accurate mapping of the county and country and so recorded many archaeological sites. By the start of the 20th century the publication of the first volumes of the Victoria County History of Durham, part of a nationwide project, were also published. Although incomplete for much of the county, it provided an inventory and description of the historic sites and monuments of the county on a ward and parish basis.

The first half of the 20th century is characterised by the continuing work of the regional societies and several individuals who in particular focussed on the prehistory of the area and often were also keen students of the geology and natural environment such as

Charles Trechman who not only excavated several prehistoric barrow burials such as Warden Law (between Seaton and Houghton-le-Spring) and collected large quantities of flint tools along the coast, but was also a dedicated and published geologist.

The later 20th century saw a rise in the teaching of archaeology at the region's two universities first at Durham and then Newcastle. For the limestone landscapes area this saw a growth of interest both for individual sites such as the excavation of the Iron-Age farmstead at Coxhoe by Colin Haselgrove and the deserted medieval village of Thrislington by David Austin in the 1970's; and wider landscape scale surveys such as the Durham Archaeological Survey in the 1980's which looked at and sampled wide areas, collecting flints and pottery from arable fields and identifying sites from aerial photographs. Indeed the use of aerial photography for identifying new sites not visible on the ground but visible as parch marks in growing crops proved to be an extremely valuable tool in the 20th century with country wide systematic survey by English Heritage as part of their National Mapping programme, and by the work of more regionally based archaeologists such as Denis Harding, Blaise Vyner and Tim Gates. Aerial photographic surveys have used vertical coverage taken by the RAF and others since the 1940's and photos taken from more oblique angles specifically for archaeological purposes. More recently the advent of easily accessible aerial photographs via Google Earth has found many more members of the public making enquiries about 'odd' marks in fields close to their homes leading to the discovery or clarification of several new sites, perhaps most dramatically to the east of Chilton where a large complex of late prehistoric enclosures and a possible henge are visible. (Plate 2).



Plate 1. Complex of cropmarks east of Chilton, Co. Durham showing a late prehistoric enclosure and possible henge seen on an aerial photograph taken from Google Earth (2006). The easy availability of aerial photography has allowed many people to explore their local historic environment.

Several **local archaeologists and historians** have added to our knowledge of the Magnesian Limestone in the second half of the 20th century such as Robin Walton of Coxhoe, Bill Fawcett of Belmont and Don Wilcox of Bowburn, studying and excavating many sites from the postulated Roman Road from Binchester to Hartlepool, the deserted medieval village at Grindon or the industrial heritage of abandoned collieries and railway lines. In addition to this there have been a number of archaeological projects either set up for **community participation** by local authorities or by the communities themselves. Notable examples of such have included the HLF funded work at the prehistoric barrow of Copt Hill by the Friends of Copt Hill and community excavations at Seaham Early Christian cemetery (plate 3), and the ruins of Coxhoe Hall by Durham County Council.



Plate 2. Seaham Hall Early Christian Cemetery excavation in 1999 provided an opportunity for local volunteers to work and train with professional archaeologists and had an open door policy for visitors with a daily website and updates. (<http://www.seaham.com/heritage/dig99>)

Several projects have been funded by the National Lottery through either the Local Heritage Initiative scheme or the Heritage Lottery Fund. These have included a survey of the prehistoric coastal remains between South Shields and Whitburn by the Arbeia Society in 2001-4, and a local history project involving school and community at Ludworth. Other notable community excavations on the periphery of the Limestone Landscapes area includes the Roman site at East Park Sedgefield, on-going work at Arbeia Roman Fort, and at the Iron-Age to Romano-British settlement site of Catcote to the west of Hartlepool by Tees Archaeology. Public interest in the local or 'vernacular' architecture of the area has also increased with a growing awareness of buildings of local importance, distinctiveness and value to communities. Research by societies such as the North East Vernacular Architecture Group (NEVAG) and by individuals has recognised the importance of such buildings as the previously unrecognised 16th century manor house at Rock Farm, Wheatley Hill, and communities have raised their voices in response to the prospective loss of buildings important to them such as Easington Colliery School once threatened with demolition.

Since 1990 when Planning Policy Guidance gave local planning authorities the power to request archaeological survey and excavation relating to planning applications, there has been a significant growth in **Contract Archaeology**, where a developer has to pay for professional archaeologists to investigate sites before or during construction works. This has led to numerous pieces of survey work across the area, some small 'key-hole' excavations during house extensions or small building schemes, other much more extensive pieces of work associated with major pipelines such as that crossing the site of an Iron-Age settlement at Pig Hill north of Haswell (plate 4), wind-farms or road

schemes such as the Bowburn to Wheatley Hill link Road where work by Archaeological Services University of Durham has identified rare and interesting late Anglo-Saxon occupation.



Plate 3. Pig Hill, north of Haswell showing Iron-Age settlement features exposed during construction of a pipeline through arable fields. Such modern excavations are usually undertaken by professional archaeological contractors and paid for by the developer as a condition of planning permission.

The future of study and conservation of the historic environment in East Durham looks bright with the respective local government archaeology services for Durham/Darlington, Tyne & Wear and Tees all providing monitoring and enforcement of archaeological work during development and then ensuring the new information reaches the public through HERs. Many local history and archaeology societies such as the AASDN⁹ and the Tees Archaeology Society continue to undertake field work, hold lectures and study tours/site visits. Several local groups such as the Friends of Copt Hill and the Crowtrees Heritage Group have received lottery funding to undertake archaeological survey and interpretation of sites, while many others have a passionate interest in their more recent history through collecting historic photographs and memories of the now fading mining culture of the area. Through all of this runs a strong vein of community interest and involvement in all aspects of the heritage of the Limestone Landscapes area.

⁹ Architectural & Archaeological Society of Durham & Northumberland.

5.0 An audit of the areas historic resource.

The following chapter looks at a range of historic periods from earliest times to the 20th century in chronological order, and assesses the state of existing knowledge for each regarding the Limestone Landscapes study area. Where the understanding of the study area’s historic environment is enhanced by the consideration of sites outside of the study area’s boundary these are referred to.

Archaeologists and historians have traditionally compartmentalised human history into a number of periods identified by technological or cultural changes such as ‘Iron-Age’ when the widespread use of ferrous metals became prevalent, or ‘Roman’ identifying the dominant culture in Britain. Such labels are useful in helping to understand the broad sweep of human history but in reality cannot be assigned firm start or end dates. These periods and their names have mostly been invented since Victorian times and no one living around 800BC would have ever considered themselves prehistoric, let alone Bronze-Age and would not have been keenly watching the time for the Iron-Age to start.

While on occasion cultural change can be short and brutal, even momentous events such as the Roman conquest of Britain happened over 30 years with the initial landing of AD43 on the south coast not leading to military occupation of the lands up to the Tyne-Solway until the campaigns of Agricola in AD78-79. The following periods then should be looked at as a convenient way of coping with a vast sweep of history largely from the end of the last Ice-Age around 10,000BC, while bearing in mind that the pace of cultural change was such that in the 1st century AD Roman North-East, some people in the region may have been living a largely Iron-Age lifestyle, while only a few miles away immigrants from Spain or the Middle-East could have been relaxing in heated baths while drinking imported wine.

Even the recent history of the 19th and 20th centuries is considered here as no less important than any other and perhaps of far more concern regarding the conservation of its historic remains and memories which are often fast disappearing.

NOTE: Figure 5 shows the distribution of prehistoric and iron-Age sites across the Limestone Landscapes and as these are catalogued on the regions HERs. Due to uncertainty in dating individual sites and differences in cataloguing between HERs it has only been possible to produce a single distribution map for all of prehistory rather than the individual sub-periods described in the text.

Historic Period	Dates	Terms used within this period
Last Ice-Age	before 10,000 BC	
Prehistoric	c.10,000-4,500 BC	Mesolithic
	c.4,500 to 2,300 BC	Neolithic
	c.2,300 BC to c.700BC	Bronze-Age
	c.700BC to 43AD	Iron-Age
Roman	43AD to 410AD	Romano-British
Early Medieval	410AD to 1066	Anglo-Saxon. And Viking
Medieval	1066 to 1547	Norman, Plantagenet, Tudor
Post Medieval	1547-1900	Industrial Revolution
20 th century	1901-200	World War I, World War 2, Cold War

Prehistory.

The distribution of known archaeological sites belonging to the prehistoric period are shown at figure 5.

5.1 The Palaeolithic (before 10,000 BC), and Mesolithic (c.10,000-4,500 BC)

Recent evidence suggests that early humans were occupying parts of the British Isles as early as 700,000 years ago, evidence for which largely takes the form of stone tools, human bone and worked or butchered animal bone. The surviving evidence for Northern England is however very limited, not surprising when it is considered that many thousands of years and many tons of ice during the last ice-age have scoured the landscape removing both major landscape features and far more ephemeral human remains. Nevertheless there are one or two finds from the region and the potential of surviving pre-ice-age soils which may contain evidence for human occupation. The two known palaeoliths (stone tools), are both from the coast, the first being found by Charles Trechman (1884-1964) a local geologist and antiquarian who worked extensively on the coastal areas of East Durham. Trechman excavated a single stone tool of quartzite from beneath glacial till at Warren House Gill near Horden¹⁰. The second find was part of an Acheulean¹¹ handaxe found more recently at South Gare¹², Redcar which although to the south of the study area enhances the possibility that Palaeolithic material is present, either offshore, or within the coastal zone. The sand and gravel beds of the local coastline, are sealed by till lain down during the last (Devensian) ice age and may be a possible source for this material. Survival of Palaeolithic material in such soil deposits may provide evidence for human activity from either before the last ice age or from one of the several temporary warm periods during which the north of England was habitable for a short while. Further evidence and encouragement for investigation of this area is provided by several finds of the bones of now extinct animal species. This has included an undated mammoth tooth from Redcar in 1954,¹³ and immediately south of the Limestone Landscapes study area a *Hippopotamus amphibius* molar from a gravel pit four miles northwest of Stockton-on-Tees¹⁴ and a Devensian rhinoceros bone from Brierton (Hartlepool).¹⁵ A number of late glacial elk and deer finds have also included discoveries of elk in peat by the River Skerne in Darlington, and Giant Irish deer from South Shields and Seaton (Teesside).¹⁶ A find of a Giant deer (*Megaceros giganteus*) 'in clay' at Mainsforth near Ferryhill,¹⁷ also hints at survival inland on the Magnesian limestone away from the coast.

¹⁰ Trechmann 1928.

¹¹ A style of stone tool manufacture dating from earliest human times to about 100,000BC.

¹² Rowe, P. in preparation

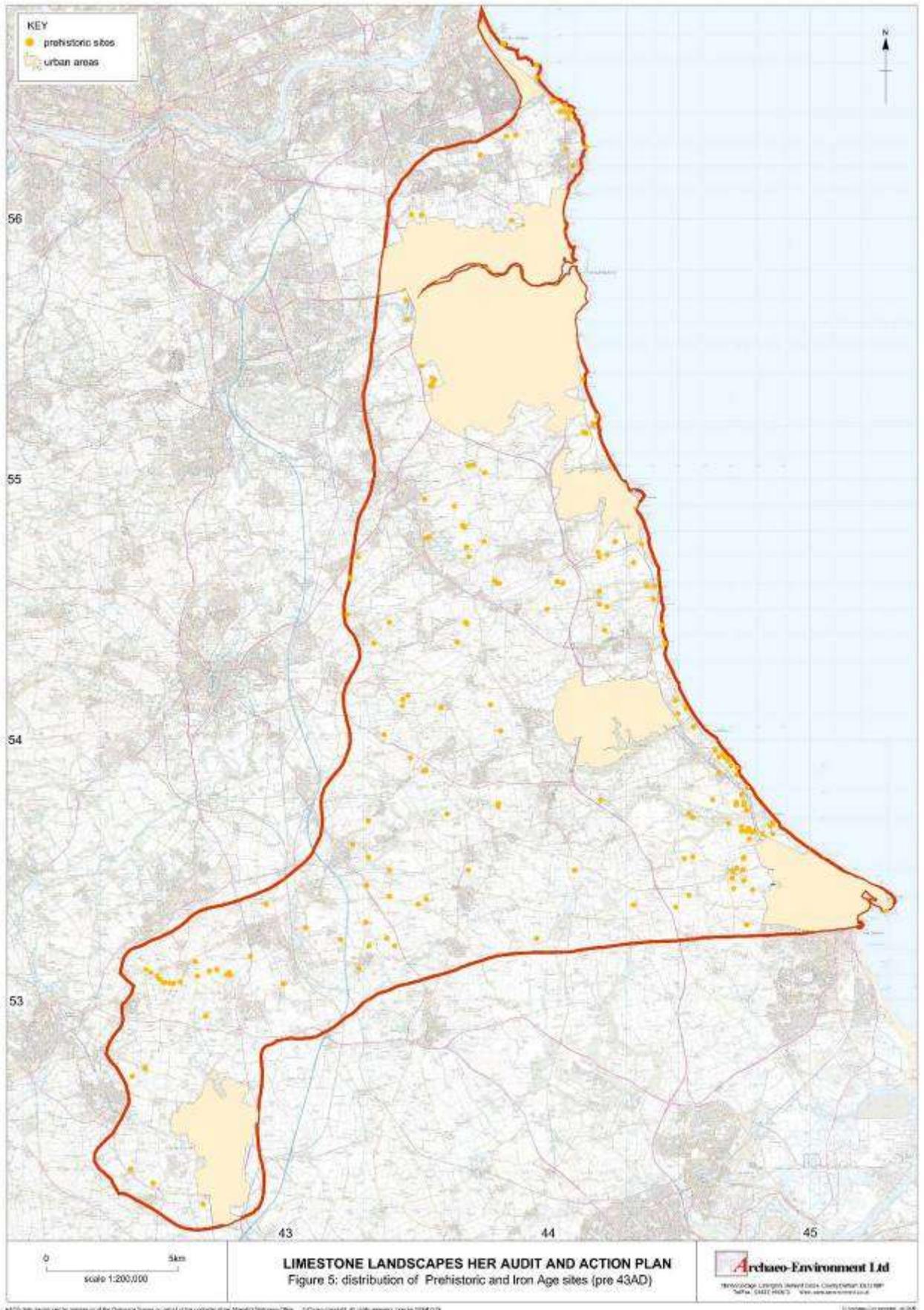
¹³ Rowe, P in preparation.

¹⁴ Johnson 1995

¹⁵ Trechmann 1939

¹⁶ Trechmann 1936; 1939; Huntley and Stallibrass 1995, 89.

¹⁷ Howse 1861; cited by Johnson 1995.



It has also been observed that other information on the environment our distant ancestors lived in and exploited could well be preserved in deeply buried soils at several locations. 'Along the Durham coast, breccias and clays of supposed Middle Pleistocene age, 'rammed by a later ice sheet into fissures of the Magnesian Limestone near Blackhall Colliery' (Johnson 1995), were found to contain freshwater shells, peat, tree trunks, insects, rodent teeth and the vertebra of an elephant attributed to *Archiskodon meridionalis*.¹⁸ These sediments have only been identified at three locations, two at Blackhall Colliery, and a third at Warren House Gill and were in the mid 1990s deeply buried by colliery waste. It is likely that following the Turning the Tide project to remove colliery waste after the ending of deep mining that these deposits may become accessible again here at these known sites and that further exploration may identify other denes within the Magnesian Limestone which pre-date the last ice-age and also hold similar material.

One cautionary note should be raised regarding any finds of Palaeolithic stone tools on the coast itself. It was common practice in the 18th and 19th centuries for colliers returning empty from delivering coal to the south of England to load up large quantities of flint as ballast for the return journey. Some of this was ground in flint mills for use in the pottery industry, but much was jettisoned off the coast, perhaps to wash up on the beach several years later, potentially bringing with it stone artefacts from southern England. To complicate matters further, seaweed was often traditionally taken from the coast to use as a fertiliser, potentially moving any newly introduced material further inland.

Any study of the coast over such a large sweep of time also needs to take into account significant changes in sea level and the soft nature of the Magnesian Limestone itself. These factors have not only caused significant coastal erosion perhaps of up to 4 km since 8,000BC, but have also drowned landscapes once above sea level under the waters of the North Sea, perhaps by as late as around 5,800-3,800 cal BC. The clearest evidence for this are the submerged forests visible on the beach at Hartlepool, running northwards up the coast towards Crimdon and in a separate exposure at Whitburn. This is a remarkable preserved former woodland area the tree stumps of which along with peat deposits are preserved beneath the sand and water of the coast as sea levels have risen since the last ice-age. Various excavations since the 1930s have shown the former woodland was burnt away in the 5th millennium BC. The earliest evidence of this burning was associated with a concentration of hoof prints of juvenile wild cattle. Other Mesolithic finds include a series of wooden stakes dated to the mid 4th millennium BC which were interpreted as part of a fish trap. A late 4th millennium BC red deer skeleton was also recovered which showed signs of being butchered by humans.²⁰

The submerged forest and the finds from it are from the period known as the **Mesolithic** (Middle Stone-Age), differentiated from the Palaeolithic (old stone age) by developments in the manufacture and use of stone tools and the emergence of early structures and dwellings. Scatters of Mesolithic lithics are found widely across the North-East and one of the earlier dates for a lithics assemblage of Mesolithic character comes from Fillpoke Beacon, just to the south of Blackhall Colliery, which has a radiocarbon date of 6,810 BC (± 120 uncal).²¹

The Durham Coast is of considerable importance in the early recognition by archaeologists of a distinctive Mesolithic archaeology of North-East England. Charles

¹⁸ Hewitt, R. 2008. ALSF Report

²⁰ Waughman 2005

²¹ Jacobi 1976

Trechman's contribution has already been mentioned. Arthur Raistrick a reader in geology at Kings College Newcastle, (a forerunner of the university) and who retired in 1956, was responsible for some of the first regional syntheses of existing evidence. Throughout the 1930s he was active in recording Mesolithic material in the region, including the important site at Crimdon Dene in County Durham.²²

The presence of sites on the coast which have seemingly easy access inland is noticeable. Good examples include those close to the steep denes on the Durham coast like Crimdon Dene. While many of these sites are thought of as coastal, just how much their location is influenced by the sea depends, as we have seen, on how far away the sea was at the time.

The Mesolithic also sees the first evidence of buildings and shelters. Immediately north of the Limestone Landscapes study area, Mesolithic tools and a possible Early Neolithic ditch were identified beneath the Roman fort at South Shields²³ while to the south at Darlington Market Place, an intact Mesolithic or Neolithic land surface with artefacts and possible structural remains was found to be preserved around 1m below the modern ground surface.²⁴ The true potential of the coastal area is best seen in Northumberland where at Howick one of the best-preserved Mesolithic sites in the British Isles was discovered and excavated.²⁵ Here a sunken-floored hut, with rings of postholes and stakeholes and a series of hearths indicating at least one rebuilding was dated to c.7,800BC by a sequence of over 20 radiocarbon dates. Further evidence for more permanent occupation on the coast is also indicated by the remains of a midden found eroding out of a cliff at Low Hauxley near Amble on the Northumberland coast²⁶ which contained evidence for the consumption of shellfish.

The concentration of flint and stone tools found in the study area is of interest when trying to identify specific zones or localities which may have been more intensively used or occupied by prehistoric peoples. Finds to date should be viewed with caution as they may reflect a number of factors apart from human activity in the Mesolithic. For instance due to the lack of good quality local flint, a range of other rock types was exploited, including chert, agate and quartz. Flint may have been collected from coastal locations, where it was washed ashore from off-shore deposits, and secondary flint deposits are also known from the boulder clays of the North-East coastal plain. Some flint may have been imported from the Wolds area of East Yorkshire. Quartz is widespread throughout much of the region. Also finds of stone tools are obviously made where people look, and it has been suggested that the collecting work of Trechman, Elgee etc. could well have biased the picture to make the coast more intensively used than further inland. It is however more likely that sheltered denes close to easily accessible marine fish and shell fish resources were more attractive to early hunter-gatherers than the adjacent and at the time heavily wooded higher ground of the Magnesian Limestone escarpment. The Durham Archaeological Survey (DAS), in the 1980's which undertook additional fieldwalking across a variety of landscape areas in the County noted that the coast had four times the density of worked flint per hectare than in the next highest transect, the Middle Tees Valley. Two areas of very high flint concentration were identified that were thought to represent probable Mesolithic sites; Field 6 south east of Middlethorpe Farm, Hart, and Field 18, north-west of Hart Warren Farm, Hartlepool.²⁷ The highest flint densities occurred within a narrow strip not usually

²² Raistrick and Westoll 1933; Raistrick et al 1935

²³ Hodgson et al 2001

²⁴ ASUD 1994, 14-15

²⁵ Waddington et al 2003

²⁶ Bonsall 1984

²⁷ Haselgrove and Healey 1992, 23

more than 1km from the coastline, although at Hart Warren, high densities were noted further inland. Elsewhere the DAS Mesolithic flint was found only at low concentrations on the Magnesian Limestone plateau and was more likely to be found in lowland, riverine environments.

Other material culture

Although early prehistoric archaeology is dominated by the study of lithics, other types of material culture are also present. Possible bone harpoons include one washed ashore in the mid 19th century near Seaburn,²⁸ and a bilaterally barbed flat point antler harpoon from Whitburn²⁹ (plate 6) both within the Limestone Landscapes area.

Museum collections

Mesolithic flint and stone tools (lithics), from the Limestone Landscapes area can be found in many of the region's museums. The largest collection is in the Museum of Antiquities, Newcastle, which holds the collection including the Whitburn harpoon. The Sunderland Museum holds assemblages from Monk Hesledon, Crimdon Dene and Fillpoke Beacon. Much material collected by Raistrick is now held by the Craven Museum in Skipton (North Yorkshire).



Plate 4. Mesolithic harpoon from Whitburn (Tyne and Wear). © Museum of Antiquities, Newcastle.

²⁸ Trechmann 1936

²⁹ Mellars 1970

5.2 **The Neolithic (c.4,500 to 2,300 BC and Early Bronze Age (c.1,800 BC)**

History of research

The upstanding remains of prehistoric times have long exerted a fascination on those wishing to understand the early history of the North-East, and it was in the *Neolithic period*, (the new stone-age), that our earliest visible monuments were built. As early as 1834 the noted Durham historian Robert Surtees was commenting on one particular burial mound on the Magnesian Limestone at Hetton.

"In a field on the right-hand side of the road from Eppleton to Hetton, and only one field from Houghton-lane, is a remarkable tumulus, consisting entirely of field-stones gathered together. At the top there is a small oblong hollow, called the Fairies' Cradle: on this little green mound, which has always been sacred from the plough, village-superstition believes the fairies to have led their moonlight circles, and whistled their roundelays to the wind.

The subterraneous palaces of the fairy sovereign are frequently supposed, both in England and Scotland, to exist under these regular green hillocks:

*'Up spoke the moody fairy king,
Who wons beneath the hill;
Like wind in the porch of a ruin'd church,
His voice was loud and shrill.'*

But the Hetton fairies, of whom, however, there is no living evidence, spoke in a voice remarkably small and exile."³⁰

Sadly, the expansion of industry, villages and towns and the intensification of agriculture has caused the destruction of many such monuments over the last 200 years including the Fairies Cradle, now partially covered by late 19th century terraced housing but remembered by the house builders by street name and an inscribed memorial stone, perhaps as a cautionary nod to any supernatural revenge.



Plate 5. Site of the Fairies Cradle, prehistoric burial mound, Hetton.



The 19th century did however see the first attempts to excavate and explore these pre-historic and enigmatic monumental sites. Amongst the more prolific of these early archaeologists or antiquarians as they were often known, was Canon William

³⁰ Mackenzie and Ross 1834. p369.

Greenwell, a Durham clergyman who carried out excavations on a large number of barrows in Durham, Northumberland, and Yorkshire. He was also a founder member and lifelong president of the Architectural and Archaeological Society of Durham and Northumberland, still going strong nearly 150 years later and a partner in the Limestone Landscapes project.

In 1877 Greenwell excavated the Seven Sisters Barrow at Copt Hill, still a prominent landscape feature overlooking Houghton-le-Spring today with its crown of trees. Greenwell's work and the subsequent further excavation and investigation, most recently involving the Friends of Copt Hill a local community group, has provided evidence that the barrow is perhaps the oldest visible human made structure on the Magnesian Limestone. Sixty six feet in diameter and nearly 8 feet high, the barrow is made chiefly of Magnesian limestone with pieces of sandstone and soil (probably remains of turf) intermixed, together with pieces of burnt limestone. The primary burial appears to be a Neolithic cremation, probably in a mortuary structure but there were also several Bronze Age cremations and inhumations, and a possible Early Medieval inhumation dug into the sides of the mound. A geophysical survey of the hill has suggested that the barrow was encircled by ditches and a possible pit alignment leading up to the barrow and several other circular and rectilinear features tentatively interpreted as ring ditches, enclosures and the possible terminus of a cursus. Excavation by the University of Durham in June 2003 found that many of the suggested features were natural fissures in the limestone bedrock, although a complex of pits/postholes were found and interpreted as a possible pit alignment leading to the barrow. The fill of one of the pits has been radiocarbon dated to 5780-5620 BC, indicating a Mesolithic presence on this site even before the barrow was built.



Plate 6. Copt Hill Seven Sisters. A Neolithic and later burial mound above Houghton-Le-Spring built around 3,500 BC and perhaps the oldest visible human made feature in the Magnesian Limestone Landscape.

Most of the artefacts discovered by Greenwell are now in the British Museum, and his work is the subject of an important research project based in the Department of Archaeology, University of Durham (Graves and O'Connor 2003). Other early scholars mainly focused their work elsewhere in the North-East outside of the Limestone Landscapes study area, especially in Northumberland. In the 20th century, despite the teaching of archaeology at both Durham and Newcastle (King's College, Durham, until 1963) universities, little work on the prehistory of the region was carried out before World War II. For a long time the only university scholar to undertake significant fieldwork was George Jobey. In East Durham and Cleveland pre-war work carried out by Charles Trechmann and Frank Elgee added to the wider understanding of the prehistoric period. During the 1980s, in the central and eastern areas of Durham, the Durham Archaeological Survey was the first extensive archaeological survey to tackle

the less immediately apparent remains of East Durham and Cleveland (Haselgrove *et al* 1988). Aerial photography at this time also identified a possible long cairn at Old Wingate just to the north of Trimdon Colliery, the only known example of this type of Neolithic burial monument in the County.³¹

The ephemeral remains of prehistory are fragile and rare and one of the most important factors in understanding the Neolithic and Early Bronze Age is the issue of site preservation. The pattern of known sites must be viewed with caution as it is as much a product of survival against the forces of natural and human made erosion (as well as where archaeologists happen to have looked!) as an accurate representation of the actual prehistoric landscape.

Occupation sites

There are no currently identified Neolithic occupation sites on the East Durham Magnesian Limestone, not surprising when only a handful are known from the whole North-East, most from Northumberland although recent excavation in 2005 by Tyne & Wear Museums at Mountjoy to the south of Durham appear to show Neolithic occupation close to the Limestone Landscapes area. Clearly with earlier Mesolithic occupation of the area and Neolithic burial monuments such as Copt Hill, Warden Law and Old Wingate present, the Magnesian Limestone must have been populated. From evidence elsewhere in the region three categories of Neolithic occupation site may be recognised. First there are simple lithic scatters of stone tools. Secondly clusters of pit features containing Neolithic objects. These pits do not appear to have a structural use. They show signs of burning and contain charcoal, pot, burnt flints and hazelnut shells and it is possible that they were used for communal cooking. The third type of Neolithic occupation sites are those with definite evidence for some kind of structure. These are exceptionally rare and where excavated have produced post- and stake-holes, some packed with stone, which imply some form of semi-permanent activity and perhaps the first settled farming groups in the region.

The evidence for settlement in the Bronze Age is extensive across the region but found mostly in the higher ground of the Cheviots and Pennines where there has been less disturbance by arable farming or mineral extraction. Some of these settlements are unenclosed, others, are situated within networks of small banks of field clearance cairns where the dwelling or main structure is often a round house. These may have had stone or wooden walls, with conical wood and thatch roofs. There are several possible sites of such farmsteads in East Durham though due to lack of excavation none can be firmly dated as this style of building continues into the later Bronze and Iron Ages.

Landscapes

All of these individual monuments and prehistoric settlement sites existed within a wider landscape. The Neolithic saw a significant transformation in the nature of the landscape from one that was wild and frequented by groups of hunter-gatherers to one that was increasingly tamed by early farmers. This long process of transformation continued well into the Bronze Age and indeed clearance of forest may have reached a peak in the Iron-Age. The two most readily identifiable elements of these earliest agricultural landscapes are cairnfields and field systems but extant evidence for both in the region is now essentially limited to the uplands of the Cheviots and the North Pennines. It seems likely, however, that the Limestone landscapes area followed a similar pattern. While many cairns may have had a burial function it appears from work elsewhere in the region that the majority are related to episodes of field clearance during the Bronze Age; large stones being removed from rocky areas as the land was

³¹ Young, R. 1980. p14.

opened up for agriculture. The cairns themselves are generally relatively small in size but may be supplemented by stone banks seemingly made from cleared field stones. It is also clear that it is not possible to make a simple distinction between cairns used for burial and simple clearance cairns. Survival of such landscapes is poor across the Limestone areas of East Durham largely due to increasingly widespread and intensive arable use of the land since medieval times. However the potential does exist for small cairnfields such as that Hesledon East House south of Seaham where a group of cairns were noted and excavated in advance of a road scheme.³² These did contain burials but may well have been part of a now ploughed out group representing a small cairnfield.

Neolithic and Early Bronze-Age monuments

The Neolithic is a period associated with the building of the first significant large ritual and funerary monuments representing the efforts of larger, settled communities. South of the Tees significant henge monuments such as Thornborough, a type also known to the north at Tynemouth and Millfield characterise the Neolithic and early Bronze-Age. Within or close to the Limestone Landscapes there are only two identified possible henge sites; one just to the west overlooking the River Wear at North Lodge, Chester-le-Street, revealed as cropmarks in an aerial photograph,³³ (although geophysical survey suggests that it had fewer entrances than interpreted from the aerial photograph and may be of later prehistoric date.³⁴) The second site is only known from aerial photographs and lies in an arable field to the south of Ferryhill amongst a hugely complicated group of crop marks which may mark an exceptionally important prehistoric ritual site (plate 9).



Plate 7. Prehistoric crop mark complex south of Ferryhill and east of Chilton Hall (left). The circular shape of a possible Neolithic-Early Bronze-Age henge can be seen just left of centre. © Google Earth 2006.

Apart from henges there are however several other notable sites of this early period within the Limestone Landscapes. The substantial burial mound at Copt Hill has already been mentioned but only a short distance to the north-west at Hastings Hill, a prominent barrow on the hill top from which Neolithic pottery has been excavated, overlooks an arable field to the south which aerial photographic evidence and some small scale excavation in 1980 has shown to contain a huge interrupted ditched enclosure, some 100m x 60m, and also the terminus of a cursus, a 'ceremonial

³² Mike Griffiths Associates 1995

³³ Vyner 2000, 103

³⁴ ASUD 2000a

pathway' formed by two parallel ditches which runs for hundreds of metres to the south-west. This is a site thought to be unique in the North-East.³⁵

Further south at Old Wingate another round burial mound³⁶ now stands within trees and only a few metres north of a stony platform some 45 metres long, probably the remains of a long cairn.³⁷ Long cairns are often considered the earliest of Neolithic funerary monuments and are exceptionally rare between the Tyne and Tees.

The mortuary behaviour of the Bronze Age in the North-East is characterised by a diversity of monumental remains, particularly cairns often on a smaller scale to the large, perhaps communal structures of Copt Hill or Old Wingate. Prehistoric cairns are especially susceptible to damage by both plough and by the attentions of early antiquarians eager for finds. While some workers at least documented which cairns and barrows they investigated, many more have been entered without any record ever being made. Batter Law barrow south of Murton³⁸ is a typical example, excavated in 1911 the remains of a skeleton in a crouched position covered by stone slabs was found with a flint knife, other flint tools and a small piece of pottery. A fragment of burnt bone may have been all that remained of a cremation burial. The site is now in poor condition, but the finds have survived in Sunderland Museum.



Plate 8. Croup Hill, Murton. Excavated by C.T. Trechman in 1914, a Bronze-Age burial mound of a type typical of the eastern coastal escarpment of the Limestone Landscapes situated on a low crest and visible from some distance. Such monuments and their prominence in the landscape have suffered significantly in the 20th century from arable intensification and urban

Pottery

The earliest pottery in the region was first produced in the Early Neolithic and is known as Grimston Ware, named after a site in East Yorkshire where it was first identified. Vessels of this type are thick-walled and well-made with out-turned or rolled-over rims. There is usually no decoration apart from some evidence for burnishing and the fabric is usually tempered with crushed sandstone or quartz. Analysis of the fabric of examples from Milfield in Northumberland³⁹ suggests that the clay came from the nearby River Till, and so it can be presumed that such pottery was locally made across the region. Grimston Ware was found in the barrow at Hasting Hill, Tyne and Wear when it was excavated by Trechman in 1911 and an undecorated pottery sherd from

³⁵ Tyne & Wear HER sites 109 & 110.

³⁶ Durham HER site 7700

³⁷ Durham HER site 7701

³⁸ Durham HER site 2

³⁹ Gibson 1986

the barrow at Warden Law also excavated by Trechman in 1911 may also have been Grimston Ware.

Impressed Ware, sometimes known as Peterborough Ware, came into use in the North-East in the Middle Neolithic (c. 3,000 BC). Thicker than Grimston Ware, it often has impressed patterns made with the finger tips and twisted-cord decorations, and may be burnished. Once again sherds of this pottery were found in the barrow at Hastings Hill. Other and later forms of prehistoric pottery are rare in the Limestone Landscapes area as the fragile nature of such vessels often fired at relatively low temperatures makes survival unusual.

Beakers appear in the region around 2,500 BC, and include some of the earliest in the British Isles. A full range of Beakers are known including long-necked, short-necked, bell, and rusticated beakers, and all-over cord-decorated examples. These have zone decoration, a thin fabric, bulbous profile, and a flat base. Although widely found in the region, many vessels come from antiquarian excavations.

The survival of organic remains from this early period is rare, but one find and resource in particular is worthy of note. The submerged forest off the Durham Coast has already been mentioned regarding the Mesolithic period. The forest was noted from as early as the 1860s,⁴⁰ and finds regularly occur as sands and erosion take their course. One particularly outstanding find was a 2m stretch of Neolithic wattle hurdling, dated to 3300BC and probably all that remains of a fish trap.⁴¹

Rock art

The occurrence of enigmatic carved motifs on both earthfast rock outcrops and on 'portable' stones and slabs often within funerary monuments and burials has been known for many years. Increased interest and extensive survey work across the North of England in recent years has resulted in a huge increase in the number of known sites and a better understanding of context if not meaning. A basic chronology has been developed suggesting the earliest examples occur in the Neolithic while the tradition and use fades out in the Bronze-Age. The vast majority of the known sites are unsurprisingly located in the hard rock areas of the North Pennines and Cheviots. There are no known rock art sites in the Magnesian Limestone area which may well be due to the soft nature of the rock itself. However it maybe of some interest that the East Durham Magnesian limestone contains many caves, relatively unexplored and inaccessible. These are however potentially the right environment for cave art as recently discovered in the Magnesian Limestone of Cresswell Crags in Derbyshire. While all these sites are on the fringe of human habitation at a time of ice-ages, the Durham caves are at a lower altitude than Creswell and possibly closer to lowland or marine resources.

Transport and Trade; The Salters Way

The importation of cultural and technological ideas in such areas as burial traditions, pottery and metal production shows that the area was in communication with a wider world. How much of this was by sea, river or overland is not clear. One track, the Salters Way, is a road of some antiquity which may be traced running the full length of the area from north to south along the Magnesian Limestone Plateau and passing close to Copt Hill/Warden Law in the north⁴² and then just to the east of the long cairn at Old Wingate in the south. While the salt trade after which it is named is an important medieval and later industry, it is possible that routes such as this may be some of the oldest in the area.

⁴⁰ Howes, R. 1864.

⁴¹ Waughman 2005

⁴² T&W HER1602

5.3 The Later Bronze Age (from c.1,800 BC), and the Iron Age (c.700BC to 43AD)

The later prehistoric period in the Limestone Landscapes is characterised by increased woodland clearance and the expansion of agriculture, with a possible increase in beef production at the expense of dairy, but also a drift from cattle to sheep.⁴³ The later prehistoric settlements are known mainly through aerial photographic surveys of such individuals as Ray Selkirk, Lesley Still and Blaise Vyner and only a small proportion of the known sites have been investigated on the ground. The available evidence suggests a tendency towards rectilinear enclosed settlements, although this may simply reflect the better visibility of such sites as cropmarks over other types of small farmstead and settlements such as simple palisaded or unenclosed occupation sites. The general consensus however is that the period sees a more defensive, protected nature given to settlements than previously. Some of the best excavated sites in the region are found just to the south of the Limestone Landscapes and provide good examples of what many of the known cropmark sites in the study area may well be like when excavated. In particular the sites at Thorpe Thewles (plate 12) and Catcote are the most significant.



Plate 9. The faint outline of the buried rectangular ditch of a late Bronze-Age or Iron Age enclosed settlement (lower centre), seen under crops north of Easington Colliery DHER 3061. © Tees Archaeology.

Within the Limestone Landscapes, the settlement at West House, Coxhoe, excavated by Colin Haselgrove of Durham University in the 1970's, and Pig Hill, Haswell a scheduled monument and partially investigated during construction of a gas pipeline, are the best known settlements of this period in the study area. Iron Age settlement activity immediately outside the Limestone Landscapes has also been excavated from beneath the Roman fort at South Shields where a round house was identified, and at Chester-le Street where plough marks were found in the sub soil beneath the Roman Fort. Notably, almost all the excavated sites mentioned above are of Late Iron Age date, with little excavated evidence for earlier occupation. This most likely represents the survival of archaeological deposits rather than any desertion of the area in the later Bronze-Age. Patterns of settlement can however be discerned with rectilinear enclosures of c. 0.25-1ha in size appearing most commonly but there are also unenclosed settlements and some sites such as Thorpe Thewles which can be traced through several stages of development where the ditch surrounding the earlier settlement was filled in, leading to a period of open occupation.⁴⁴

⁴³ Petts, D. 2006. p35

⁴⁴ Heslop 1987



Plate 10. An enclosed farmstead based on the evidence from the excavation of an Iron Age site at Thorpe Thewles. © Tees Archaeology

Elsewhere small settlements seem to be related to more developed field systems, such as the ladder systems associated with dispersed Iron Age occupation at Faverdale, Darlington. Within the Limestone Landscapes area, enigmatic cropmarks in the south-west around Eldon are also suggestive of ladder type settlement and associated field systems (plate 13). The question of continuity into the Roman period is intriguing but has only been clearly observed on some of the larger sites, including Catcote, and Thorpe Thewles. This to some degree contrasts with that observed south of the River Tees in North Yorkshire, where continuity occurs on a wider range of

sites. The evidence for a settlement hierarchy in the region is slight and may not be related purely to size. Perhaps the largest known settlement type of this period and more typical elsewhere in the region, is known as a hill fort, seen most commonly in the high ground of the Cheviots and elsewhere in Northumberland, as well as south of the Tees. Durham has few such proven sites of this type, which may be of a higher status than the simpler enclosed rectilinear settlements. The best example of a hill fort between Tees and Tyne is on the very western edge of the Limestone landscapes at Redworth, and known as **Shackleton Beacon**.



Plate 11. Cropmarks of a possible Iron-Age field system and ladder settlement near Eldon Lodge, County Durham. © Google Earth 2009

Although largely obscured by woodland growth of the last 150 years or so this is a significant construction of several encircling banks and ditches all enclosing a central platform. Speculation regarding Penschaw Hill, being a similar prehistoric hill fort, is also

rife on the internet, but this is likely to be a misinterpretation of encircling medieval quarry track ways from aerial photos.⁴⁵

Such constructions are usually referred to as Iron-Age, but excavation on a number of sites has shown the earliest defences being considerably earlier. For instance the earliest defences at the hill fort at Eston Nab just south of the River Tees were, after excavation, found to be Late Bronze Age in date followed by an Early Iron Age boulder wall and an early 5th century BC ditch and bank.⁴⁶ Evidence from sites like these suggests that, throughout most of later prehistory, the region was weakly centralised and may have been based on household groups.

Trade, transport and communications

It is exceptionally hard to reconstruct Iron Age route ways with any great confidence. These may have acted as corridors between the higher ground for summer grazing and lower kinder climates especially near the coast. It is also possible that some Roman roads may have followed pre-existing late prehistoric alignments, as was observed at Thorpe Thewles where the rectangular cropmark of the enclosed settlement lies, significantly, on the same alignment as the modern road (the A177), which is in turn, reputed to follow the course of a Roman road across the south-west of the Limestone Landscapes between Stockton on Tees and Chester le Street. It is in turn possible that the Roman road itself followed the course of an earlier trackway which was contemporary with the Iron Age site at Thorpe Thewles

There is some limited evidence for long-distance trade and exchange in the later prehistoric North-East. This is however limited to localised trade in dolerite-tempered and calcite-tempered pottery, while higher status sites may have enjoyed Roman imports of pottery, wine and foodstuffs in the last century before the Roman invasion of AD43. It is also likely that such commodities as salt were being traded over longer distances and there may well have been production centres from sea water on the Tees and Wear, as there were in later centuries.

Religion and ritual

Unlike earlier prehistory, the later Bronze Age and Iron Age are notable for their lack of monumental religious sites. The focus should perhaps be on ritual activity rather than ritual sites. Even burial sites are rare. Possible Iron Age burials have been found at Catcote just south of the Limestone Landscape area,⁴⁷ while the enigmatic cave burials from Bishop Middleham quarry found in 1932 are probably also of Iron Age date but could be Bronze-Age.⁴⁸ Finds included a few sherds of probable La Tene II pottery of the second century BC, a large bone implement similar to a netting-shuttle, a pointed bone considered to be the head of an arrow or lance of early Iron Age date, and a 'very indeterminate' bronze rectangular object of thin plates fixed with three rivets. Cave burial is perhaps an underestimated burial rite as although the area has considerable numbers of caves, few have been investigated and many more have been lost to quarrying. In addition to the Bishop Middleham finds there were also two more recorded caves at Ryhope and Whitburn where in the second half of the 19th century groups of human burials were found along with significant numbers of animal bones of both domesticated and wild species.⁴⁹

⁴⁵ <http://www.penshawmonument.co.uk/> & http://www.themodernantiquarian.com/site/2350/penshaw_hill.html

⁴⁶ Vyner 1988.

⁴⁷ Long 1988, 18.

⁴⁸ Raistrick 1933. D HER site 1125

⁴⁹ T&W HER sites 160, 867, 868.

The main form of ritualised activity appears to have been the placing of hoards and while the best known examples are from the Pennine Dales of Teesdale and Weardale and of Late Bronze Age date such as Gilmonby and Heathery Burn, there have been



Plate 12. High Throston Hoard. A votive deposit of c.1010-830 BC of bronze horse fittings, a spear and amber beads covered with a pottery vessel. Found by a metal detectorist and excavated by archaeologists from Tees Archaeology. (© Tees Archaeology)

significant recent discoveries in East Durham. A single bronze hand-axe in the Heathery Burn tradition and probably made after 800BC was retrieved and reported by a metal detectorist from Hawthorn in 1997. Rumours at the time suggested this was only one artefact from a larger hoard.

The context of hoards varies with Hawthorn and Gilmonby buried in the ground while the Heathery Burn hoard was found in a cave. The structure of these depositions could be complex, as was shown at High Throston in the south of the Limestone Landscape area where a range of bronze and jet objects were found in 2002 which contained many finds as well as ash, burnt bone and a pot and which has since been dated to c.1010-830 BC (Peter Rowe

pers comm). The practice of 'votive' deposition continued into the Iron Age and at Coxhoe evidence was excavated for the careful placing of objects in ditch terminals and pits.⁵⁰

Material culture and technology

Apart from the objects mentioned above there are relatively few other material finds of the period from the Limestone Landscapes area, and many of these are unsurprisingly from the few excavated sites. Few items of personal dress survive and due to the nature of these materials they are often fragmentary and difficult to date. A worked bone toggle comes from Thorpe Thewles which has also produced a small number of shale or jet objects. Textile production and working is indicated by loom weights and spindle whorls which have been found at Catcote and Thorpe Thewles while a particularly beautiful but isolated glass bead has been found at Bishop Middleham.



Plate 7. A Late Iron-Age glass bead found at Bishop Middleham.

Museum holdings for the prehistoric period

All of the regional museums hold some prehistoric material. On Teesside some important material from Catcote and Thorpe Thewles and Hartlepool is held by Tees Archaeology and in part displayed at Hartlepool Museum. In Durham the County Archaeology Collection held at the Bowes Museum contains some material from the area as does the Old Fulling Museum in Durham where the archive from the excavations at Coxhoe East House is held and finds from the Durham Archaeological Survey. A small number of prehistoric objects are held at the museum at Arbeia, mainly

⁵⁰ Haselgrove and Allon 1982

objects found on the site or in the immediate area. A larger collection is held by Sunderland Museum including finds from Hastings Hill and much of C.T Trechman's excavations from the early 20th century. The Bishop Middleham Iron-Age glass bead remains in a private collection.

5.4 The Roman Period (AD43 to AD410)

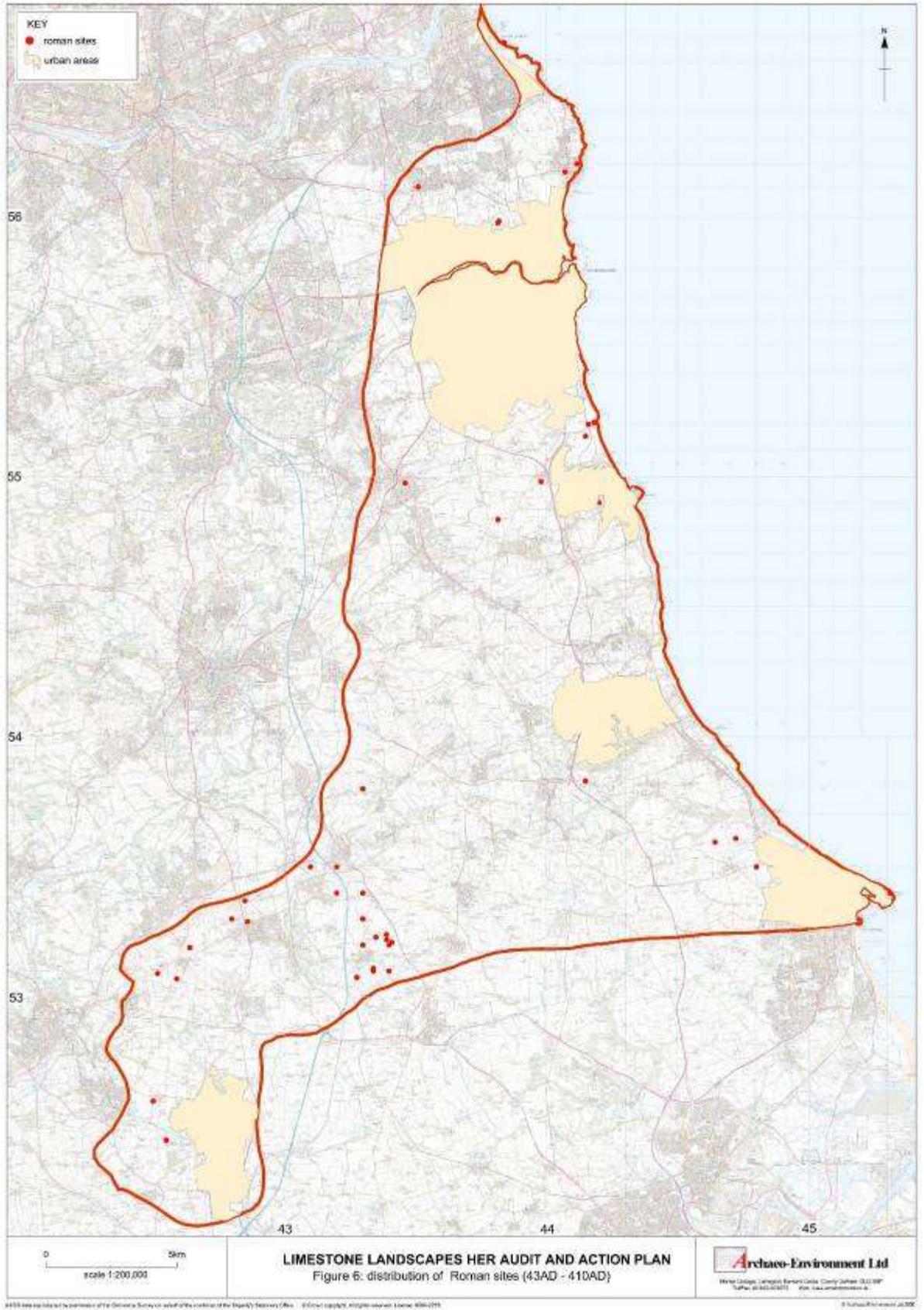
Although the Roman period in Britain is generally acknowledged as beginning in AD43 with the major invasion of the south coast and occupation of most of southern lowland Britain, the reality is however more complicated. From as early as 55BC when Julius Caesar briefly landed in southern Britain, Roman influence had gradually been spreading, often through gifts to ruling families to both keep them quiet and more friendly disposed towards Rome, but also to make the prospect of Roman rule when the opportunity came more acceptable. Such a policy kept the northern tribes of Britain both well disposed to Rome and independent of direct rule until AD 68 when legionary bases were established at York and Chester and the area south of the Tyne formally occupied. Roads and forts were constructed quickly afterwards to ensure the region could be controlled.



Plate 14. Statute of the Roman God Jupiter Dolichenus found at Carley Hill Quarry, Fulwell in 1820

Due to the sheer size and preservation of many Roman sites in the North-East, most of a military nature such as forts and Hadrian's Wall itself, they have attracted the attentions of antiquarians, archaeologists and historians for several centuries since perhaps William Camden first wrote about Hadrian's Wall in 1610. This has led to a significant amount of study and research on the period, but a focus perhaps on the Roman military establishment and infrastructure such as roads to the detriment of civilian life in the region where many may have carried on a largely Iron-Age farming life style. It must be said from the outset that the Limestone Landscapes project area contains few clearly Roman period sites and none of the major monuments such as forts. This is in part a quirk of modern bureaucracy as within a very short distance of the boundary of the Natural Character Area can be found several very significant sites such as the forts at Arbeia (South Shields) and Concangis (Chester-le-Street); and the large trading and civilian settlement at East Park, Sedgefield. Two Roman Roads which connect these sites either cross or are close to the Limestone

Landscapes area, the first known as Cades road and named after an 18th century antiquarian, crosses the south-west side of the area heading north from Sedgefield, to the east of Bishop Middleham and following the line of the A177 through Coxhoe before leaving the area to reach the Roman Villa at Old Durham and then on to the fort at Chester-le-Street. Its line is marked on a distribution map of Roman sites (figure 6) by a speckle of dots either side of the route. North of Chester-le-Street a second Roman road, known as the Wreckendyke, leaves Cades Road and heads north-east to Arbeia fort at South Shields, passing just to the north-west of the Limestone Landscapes area around Bolden.



There has been speculation by others⁵¹ of at least two other Roman Roads of significance within the Limestone Landscapes. The first leaving Cades Road at Coxhoe and heading east towards the coast passing to the north of Coxhoe Hall; the second running north-south along the high ground of the coastal ridge of the Magnesian Limestone and parallel to the coast. Hard evidence for either of these routes is difficult to come by, but logistically they do make some sense with the first providing access from the interior to the Hartlepool area and feasible anchorage points, while the second would seem a logical route south from Arbeia fort at South Shields into the area and while not perhaps a Roman 'A' road would have been useful for food or tax collection as well as local traffic. The main obstacle to this road would have been the River Wear and its gorge at Sunderland or more precisely Hylton for which there are several references and much conjecture all well summarised by the Tyne and Wear Historic Environment Record. 'In around 1713 there were complaints about "ye stones of the old bridge being a nuisance to the river'. The Sunderland Echo of May 25th 1881 refers to damage to a River Wear Commissioner's dredger deepening the river bed when it struck a stone block 'about five feet square'. It also describes a line of stone blocks of similar dimensions stretching across the river and Roman coins being found in this location. Whellan's Directory of 1894 describes the stones discovered by the River Commissioners as 'immense blocks of stone, carefully wrought and squared, clamped together with iron clamps, run in with lead, and laid upon a framework of oak timber.' At a meeting of the Society of Antiquaries of Newcastle upon Tyne in 1883, a Mr Robinson stated that he had seen a stone causeway on the site when he visited it on April 16th. A Mr Nichol stated that he remembered as a boy crossing the causeway of large blocks of stone clamped together with lead. Mr Robinson and a Mr Hodges said there was no trace of anything Roman on the spot. Some of the stones which formed part of this structure were apparently dumped at the river mouth, some being used in the construction of the North Pier. When the pier was repaired some of these stones were deposited on the beach while others were used as a boundary to support the concrete infill of the pier. Other examples are used to block a car park entrance to the north of the North Pier. The 'brigstones' exhibit Lewis holes (rectangular slots to enable the lifting of the stone) and dove-tail cuts. This does not necessarily identify them as Roman origin, however, and there still seems doubt over whether the structure from which they supposedly came was a bridge or a causeway⁵². Some additional evidence that this may have been on the line of a Roman Road comes from the Durham historian Robert Surtees who recorded the find of a Roman milestone dedicated to the Emperor Gordian, and so of the first half of the 3rd century AD, from the River Wear at Hylton⁵³.

An examination of the distribution of known Roman sites (figure 6), also suggests there may have been a Roman Road leaving Dere Street south-east of Bishop Auckland and passing along the higher ground of the Magnesian Limestone through Kirk Merrington and Ferryhill to join Cade's Road south-east of Coxhoe. Where there are a number of finds including a trumpet Brooch, pottery, silver spoons and coins.⁵⁴ As with any

⁵¹ Selkirk and Walton 1983.

⁵² T&W HER 4623

⁵³ Meikle & Newman, 2007, 15.

⁵⁴ D HER 412, 1168, 3930, 8086.

inferences of this nature, further research and finds will undoubtedly alter distribution maps and ultimately any conclusions drawn.

The 'competitive edge' of nineteenth century antiquarians to identify traces of the Roman military presence in the north at a time of great discoveries along Hadrian's Wall, is perhaps also the root of beliefs that there was a 'Roman station' near the mouth of the Wear, on the high ground at the north end of Castle Street. In support of this, its commanding situation was noted and evidence was cited, of four foot thick mounds of worked stones and cement examined there in 1873, together with ancient sculptured stones of supposed Roman work dug up near the Castle Well, and a Roman inscribed stone found in a wall of the rectory coach-house. The site has become heavily disturbed in the century or so since these claims were made but a lack of any substantial Roman finds during extensive building works of the 20th century and a subsequent identification that the supposed inscription is eighteenth century in origin, makes the likelihood of a Roman Fort remote.⁵⁵

Harbours, maritime and coastal installations

While the area has little in the way of formal Roman imperial archaeology such as major roads or forts, its coastal location provides two interesting areas of interest and potential. Maritime transport was undoubtedly an important form of communication in the Roman period, and it is likely that most bulk cargo was carried by ship rather than road. In spite of this, there is relatively little evidence for port or harbour facilities. Arbeia Fort at South Shields did however have a role as a major supply base and there is evidence from the contemporary Roman documentation of the *Notitia Dignitatum* for bargemen from what is today Iraq being stationed there, it seems likely that there was some form of port facility close by. Evidence for unsuccessful maritime voyages comes in the form of a few possible wreck sites. A number of Roman finds, including a patera from Herd Sand beach, South Shields may have originated from the wreck of a Roman ship possibly of the 2nd century AD,⁵⁶ and another possible wreck is known from Hartlepool Bay.⁵⁷

The coastal fringe south of Hadrian's Wall may also have been important as part of the defences belonging to the Wall and this boundary of the Roman Empire. Signal stations are known on the west coast of Cumbria and along the North Yorkshire coast but, surprisingly, there is no evidence for any such system in the North-East where to complete a series of inter-related signal stations one or two might be expected. This may be a real absence, or it may be related to the high degree of coastal erosion along the Durham coast. At Seaham in particular there are many widely believed local stories of St. Mary's church being built of re-claimed stone from a Roman signal tower.

Industry

Some limestone was clearly burnt for use in mortar, and lime pits have been discovered at South Shields where the fort is constructed from the local stone of the Limestone Landscapes area. Pottery production of grey wares is also known from Sedgefield East Park and there are likely to have been tile kilns at South Shields.

⁵⁵ T&W HER39

⁵⁶ Bidwell 2001, 1-23.

⁵⁷ Swain 1986, 33-34.

The majority of the material evidence of the Roman period from the area is however provided by a number of individual finds. In addition to shadowing the Roman roads there are also concentrations of finds, notably down the coast which may be indicative of areas of increased Romanisation. In particular attention should be drawn to the area between Whitburn and Monkwearmouth especially around Carley Hill where there have been several finds of pottery, quern-stones, coins and brooches some as finds and associated with a burial, in addition to a bronze-figurine of the god Jupiter Dolichanus in 1820 (plate 16).⁵⁸ A few miles to the south a concentration of finds is notable to the south-west of Seaham Harbour running inland towards Seaton mainly of Roman coins.⁵⁹ Further south there is a single gold armet from Shotton⁶⁰ while from Hordon, around to Hartlepool Headland there are once more a concentration of finds composed of coins, a bead and a brooch.⁶¹

A review therefore of the known and proven Roman sites from the Limestone Landscapes area provides a less than dramatic picture of Roman imperial might and classical civilisation than may be seen elsewhere in the region. The majority of recorded sites are individual or small groups of finds such as coins, pottery and occasional items of higher value such as silver spoons or votive bowls. These can be put down to occasional votive deposits, intentionally buried as either offerings to the gods or for safe keeping such as a set of paterae from Bishop Middleham (plate 18), two silver spoons from Kirk Merrington (plate 17), or occasional luxury items represented by pottery or coins.



Plate 8. One of two silver Roman spoons found near Kirk Merrington and now in the Bowes Museum (1990.11.1/ARC)

This background of occasional finds would seem to suggest that the area during the centuries of Roman occupation maintained a largely rural, farming economy, perhaps little different to that seen in the later Iron-Age. Individual family farms were more likely to have predominated rather than any type of organised 'villa' agriculture, traces of which are rare north of the River Tees. The possibility of local wealthy farming families upgrading to Roman style buildings should not be discounted however as the 'villa' at Old Durham and the recent find of a building with a hypocaust at Faverdale and associated⁶² 'ladder-style' field system close to the Limestone Landscapes indicates. Elsewhere in the area native field systems and settlements probably continued for

⁵⁸ T&W HER 22,27,60,398,399,1996, 4605,6802.

⁵⁹ D HER 69, 70, 75, 1155.

⁶⁰ D HER 161.

⁶¹ D HER 8276, C HER 301, 689, 5246, 6349.

⁶² Glover, G. 2006.

much of the Roman period where they have been observed beneath the forts at Wallsend and Chester-le-Street and in cropmark evidence at Elwick.⁶³

Collections

Two major collections relating to North and South Tyneside are held by Tyne and Wear Museums. For South Tyneside the majority of the collection consists of material and archives from excavations at Arbeia Roman Fort and its surroundings. Much of this comes from Victorian excavations at the site from 1875 onwards, excavations in 1949-53, and from the excavations carried out by Tyne and Wear Museums since 1977. This last constitutes the largest collection of securely stratified material from any site in the Hadrian's Wall World Heritage Site. The collection also includes the Bruce Library of antiquarian books, archival material and ephemera relating to Hadrian's Wall, and watercolours by Ronald Embleton. Material from archaeological fieldwork in the district also forms part of the collection. South Shields Museum and Art Gallery also has a small collection, dating back to the 19th century, of archaeological artefacts from a range of locations and periods. The Bishop Middleham Roman paterae are in the Bowes Museum as are the Kirk Merrington silver spoons. The statute of Jupiter Dolichanus from Fulwell belongs to the Newcastle Society of Antiquaries and is in the Museum of Antiquities (now the Great North Museum) in Newcastle.



Plate 9. A Set of Roman Bronze Paterae found in 1997 by a metal detectorist near Bishop Middleham and now in the Bowes Museum.

⁶³ C HER 10.

5.5 The Early Medieval Period. (AD410 to 1066)

The Early Medieval period is of huge significance in the history and origins of the modern English state, culture and language. As with any historic period it cannot be given a precise end and start date originating in the later period of Roman occupation in the early 5th century and coming to a close in the few decades after the Norman Conquest of 1066 when the harrying of the north and the appropriation of lands and titles by the new Norman overlords marked a distinctive political and cultural change. The centuries in between are filled with momentous events and developments from early pagan Anglian settlement of the region to the conversion to Christianity and the power struggle with Viking powers of Denmark, Norway and York. As the period progresses there is an increasing amount of documentary evidence beginning with epic poetry chronicling the struggle between British and incoming Anglo-Saxons such as *The Gododdin* by the 6th century poet Aneirin. Later documentation includes informative legal works such as the founding land grants given to the monastery of Wearmouth-Jarrow in the late 7th and early 8th centuries and lying largely within the Limestone Landscapes area, or that of King Athelstan in 934AD gifting royal lands stretching from Bishopwearmouth south to Dalden to the Community of St. Cuthbert then resident at Chester-le-Street. The surviving physical evidence for the period is perhaps less obvious and to be found largely in church architecture, carved stonework, place names and museum collections of excavated and found artefacts.

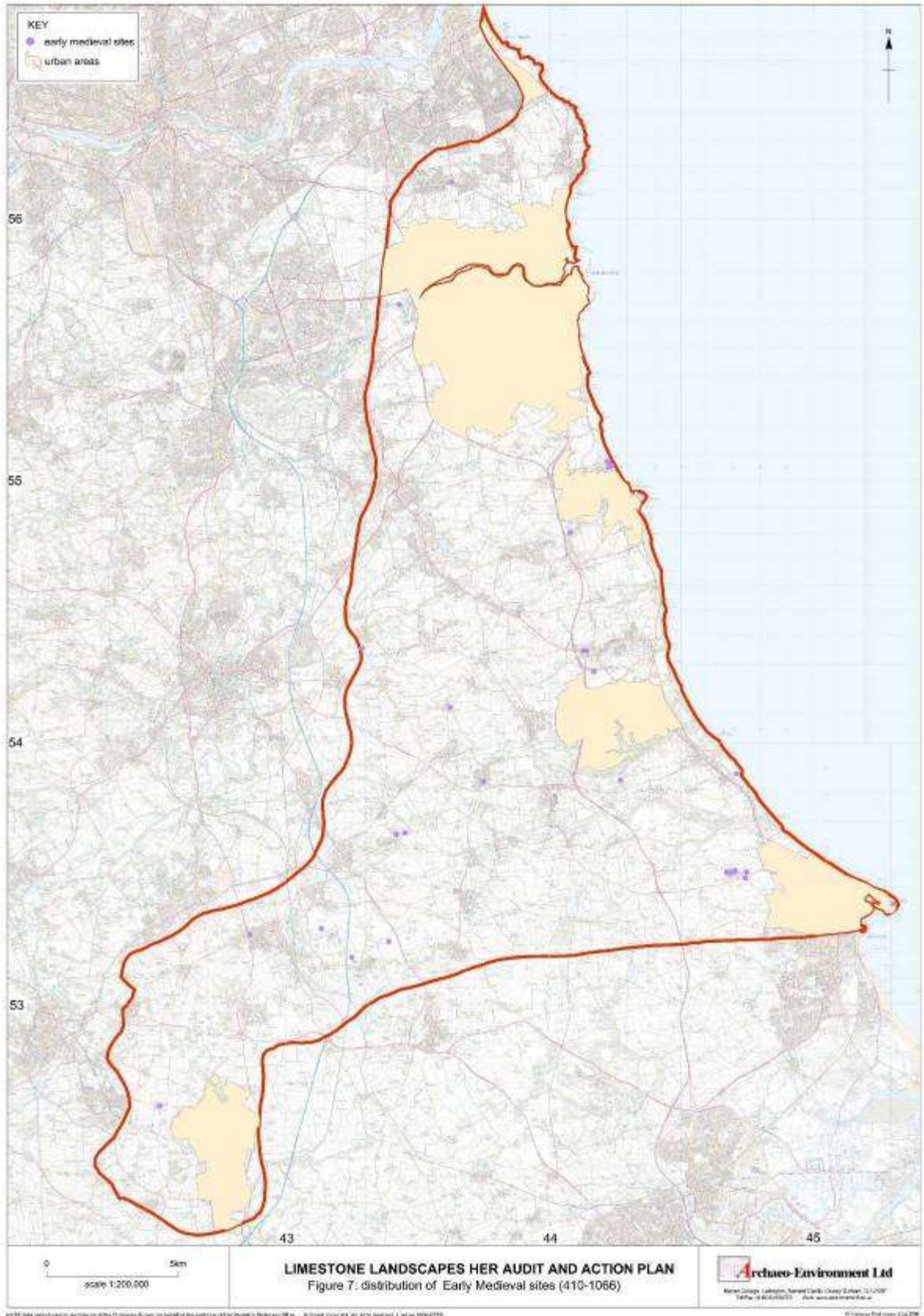
Settlement

In an age where most buildings were made out of timber rather than stone, indeed the Anglo-Saxon verb for building was *(ge)timbran*,⁶⁴ it is no surprise that there is little physical evidence for settlement from the lowlands south of the Tyne. Of that which has been recognised, most is located in the Limestone Landscapes area. For the early and mid Saxon periods of the 5-8th centuries there is little or no evidence of settlements despite significant numbers of burials and chance finds, but from the final 200 years before the Norman Conquest the Limestone Landscapes area holds significant potential. The partial remains of a single structure identified during the construction of Ferryhill Police Station were dated to the 10th Century by an associated decorated bone mount;⁶⁵ while traces of a possible late Anglo-Saxon structure were also recorded during a watching brief at Seaton Holme, Easington.⁶⁶ Further south at the village of Hart, excavations between 1965 and 1973 on the site of Hart Manor, the later medieval manor owned by the de Brus family, identified evidence for Anglo-Saxon occupation visible as the gullies, post-holes, trenches and pits of timber buildings and enclosures, associated with pottery dating from the 10th to 12th centuries. Although the exact nature of this occupation is uncertain, it is contemporary with the earliest phase of the adjacent parish church. During excavation in 1972, a length of ditch 400m to the west was uncovered aligned with the south wall of the churchyard and was interpreted as part of a large, rectangular pre-Conquest enclosure which contained both the church and the Saxon settlement.

⁶⁴ Roberts, 2008, 147.

⁶⁵ Batey 1990.

⁶⁶ Daniels 1991 unpublished Report Durham HER



The length of ditch, which was in-filled and built over, was a maximum of 2.5m wide and 0.9m deep and had contained timber uprights.⁶⁷ Recent work by Alan Vince on regional pottery has however suggested this may all be post Conquest.

It has been suggested that the presence of important monastic sites at major river mouths such as Monkwearmouth and Jarrow or sheltered harbour sites as at Hartlepool, must surely be indicative of the significance of maritime trade⁶⁸ possibly seen in the form of beach markets. Indeed it has been suggested that while Jarrow provided an ecclesiastical centre of power there may have been a seat of Royal power within the former Roman fort of *Arbeia* a short distance north at South Shields, and that Jarrow Slake provided a harbour, beach market and trading site during the 7th century.⁶⁹ Any potential beach markets elsewhere on the coastline of the study area have almost certainly been destroyed by coastal erosion.

For the earlier Anglo-Saxon settlement of the area and any subsequent expansion and colonisation, some significant potential exists in the study of place name evidence. It has been suggested that *ham* endings may be indicative of early Anglo-Saxon settlements, such as at Seaham and Middleham within the Limestone Landscapes area as also may be Billingham immediately south of the study area where the *ing* after a personal name has been interpreted as identifying the founder of the settlement. Elsewhere in the study area *tun* endings as at Easington suggest settlement expansion in the mid to late Anglo-Saxon period where the *ing* may well refer to a local overlord in perhaps the 9th century onwards as the manorial system of landscape division began to emerge.⁷⁰

The number, form, size and distribution of settlements in the mid Anglo-Saxon period of the 7-9th centuries as land was divided up and farms and villages established is of particular interest and in one small part of the study area has been the subject of documentary investigation by Roberts⁷¹ and is discussed further under landscape below.

Landscape and agriculture.

The landscape and settlement pattern established by the end of the Anglo-Saxon period in 1066 provides a good deal of the foundation of the landscape we see today. Later enclosures, mineral exploitation, motorways and rail links, colliery villages and new towns have all overlain this but a good deal of what we can see and characterise can be traced back over a thousand years. The detail of how the land was used and exploited in Anglo-Saxon times is however lacking. For one area of East Durham however we are fortunate to have surviving documentation regarding the estates of the monastery of Jarrow-Monkwearmouth which lay principally along the coast between Tyne and Wear and also southwards to include Seaham and Daldon. The core of this area between the two rivers has been referred to by Roberts as *Werhale* and he has produced a reconstruction of this rural estate based on a number of sources and interpretation of contemporary and later documents and maps and analysis of the landscape.⁷² Such work holds great promise for understanding the Anglo-Saxon rural landscape and economy and directing future archaeological work. Outside of this area of *Werhale* and the position of some churches and settlements it is however difficult to identify any datable archaeological features in the countryside. A recent exception is

⁶⁷ Schedule of Ancient Monuments SM32743.

⁶⁸ Stocker, 2000.

⁶⁹ Roberts, 2008.

⁷⁰ Watts, 2002. xiii-xiv.

⁷¹ Roberts, 2008.

⁷² Roberts, 2008.

the enclosure and wooden post structure dated to the 10/11th century and discovered on the west of the limestone escarpment during the construction of the Bowburn-Wheatley Hill link Road⁷³

Anglo-Saxon burial

Whether directly from their homelands on the continent or by gradual movement up the east coast, early Anglian settlers into the North-East are most evident along the coast and lower reaches of the rivers between Tees and Tyne, largely from cemetery and burial evidence. The Limestone Landscapes area is therefore of exceptional importance to understanding this seminal phase in English history within the region. Several 6th-century pre-Christian cemeteries are known, including Andrew's Hill, Easington⁷⁴ and immediately south of the study area at Norton.⁷⁵ The possibility of other cemeteries is high and recent metal detector finds recorded by the Portable Antiquities Scheme suggest the area around Ferryhill may be of interest.

In addition to cemeteries there are also several examples of isolated burials of this period in the study area such as the discovery in the early 20th century of a single cist grave containing the remains of a child and a single bead at Blackhall Rocks. Perhaps the earliest Anglo-Saxon burial from the study area comes from Castle Eden (Co. Durham), where in the late 18th century an inhumation accompanied by a unique late-5th-century Frankish green-blue glass claw beaker (plate 19) was discovered by chance when a hedgerow was being dug up.⁷⁶ Most burials of this period were inhumations rather than cremations, though from the south of the region a few cremations are known.



Plate 17. Castle Eden Claw Beaker. Made in the Rhineland in the 5th century AD and excavated along with a pagan Anglo-Saxon burial at Castle Eden in 1775, now in the British Museum.

There are also a number of barrow burials, though these have no firm dating evidence. Secondary inhumation burials without any datable grave-goods have been recognised at the prehistoric barrow of Copt Hill and may well be present as later insertions on other prehistoric prominent burial sites within the study area. It is possible that these are 7th century or later, when the use of grave-goods became less common; alternatively they could belong to the 5th or 6th century and represent a form of the native British 'findless' burial rite.

⁷³ ASUD 2008,

⁷⁴ Hamerow and Pickin 1995.

⁷⁵ Sherlock and Welch 1992.

⁷⁶ Bruce-Mitford, 1950.

From the 7th century onwards the process of conversion to Christianity by Anglo-Saxon kingdoms began, with influences coming from both the Roman church via Augustine and Canterbury, and the Celtic church via Aidan and Lindisfarne. Many of the changes in Anglo-Saxon burial rites in this period seem to be related to shifts in religious belief from pagan to Christian. These late, accompanied but often artefact poor burials are known as 'final phase'. The development of churchyard burial is poorly understood in the region. In some cases a 'final-phase' site may have developed into a church. At Seaham since the mid 19th century there have been reports of Anglo-Saxon metalwork and bones being found near the churchyard, recent excavation in the 1990's has now revealed an extensive cemetery dated by radiocarbon and the style of coffin fittings to the 7th and 8th centuries AD.⁷⁷ Even at this late period there are also some isolated burials from the 7th and 8th centuries beyond churchyards and cemeteries such as the bronze buckle with garnets found in a rock-cut grave at East Boldon.⁷⁸

Churches and ecclesiastical sites

The North-East is home to a series of major Anglo-Saxon monasteries, several of which have been investigated and are located either in or immediately adjacent to the Limestone Landscapes project area. The best known are undoubtedly those at Hartlepool and Wearmouth-Jarrow which have been the focus of extensive investigation and excavation by respectively Robin Daniels and Rosemary Cramp. Wearmouth-Jarrow was founded in the 7th century by Benedict Biscop, a Northumbrian aristocrat and the twin monastery was for nearly a century an internationally important centre of learning. Home to Bede (AD 673-735), whose writings on history, time, science and scripture were key texts, it was also a major production centre for books and produced the *Codex Amiatinus*, the oldest surviving single-volume bible in the world.

Hartlepool, the site of the double foundation by Hild, also a member of the Northumbrian kingdoms aristocracy, has been the focus of extensive excavations, including the remains of cemeteries, structures and evidence for metalworking and other craft and industry.

In addition to its archaeology, the region possesses a range of standing Anglo-Saxon ecclesiastical architecture. The major overview of Anglo-Saxon church architecture in Britain is Taylor and Taylor's *Anglo-Saxon Architecture* (1965-78). They recognised pre-conquest fabric at several churches in or very close to the project area: Aycliffe, Billingham, Hart, Jarrow, Monkwearmouth and Norton. More recent study by Peter Ryder on the churches of Durham over the last 20 years has amended this list, suggesting that the early fabric at Hart is more likely to be Norman, as is that at Pitlington and possibly Norton. St Mary's at Seaham remains an enigma, long thought of as Anglo-Saxon and with some aspects of design and construction suggesting an early date similar to Escomb, the excavated 7th century cemetery is a significant distance to the north and Ryder remains unconvinced by the standing fabric placing it in the late 11th century. Recent geophysical work by Sarah Semple of Durham University in the environs of the church has also produced intriguing evidence for possible pre-conquest features (Semple pers comm.). More positively for Anglo-Saxon studies, the evidence from St. Nicholas in West Boldon, and possibly Church Kelloe is more promising of surviving Anglo-Saxon fabric.⁷⁹ The church at Monk Hesledon criminally demolished in the 1960s might also make a claim to being an Anglo-Saxon foundation. An argument has also been made for Anglo-Saxon fabric at St Michaels in

⁷⁷ NAA 1999; Johnson 2005

⁷⁸ Miket and Cramp 1982, 9-10

⁷⁹ Ryder 1988; 1996; 2004

Heighington at the extreme west of the study area,⁸⁰ although Peter Ryder in his survey work for the Durham Diocese remains unconvinced.

Regardless of any surviving standing Anglo-Saxon fabric, many churches in the Limestone Landscapes area were clearly founded in the 7th to 11th centuries before the Norman Conquest. The evidence for this comes from some documentary evidence but principally in surviving Anglo-Saxon carved stonework, often built into later church buildings and found during restoration work over the last few centuries.

Carved stone

The major overview of the Anglo-Saxon stone sculpture of the project area and indeed the county is Rosemary Cramp's Durham and Northumberland volumes of the *Corpus of Anglo-Saxon Stone Sculpture in England* published in 1984. Cramp's volume lists and describes nearly 400 individual stones, fragments or groups of architectural stonework. A modest number of additional fragments have since come to light (e.g. Richardson 1994), although this has not significantly changed the overall distribution of early medieval sculpture in the region. The earliest Anglian material in the North-East can be found in the study area at Hartlepool, Jarrow, and Monkwearmouth. Grave markers are the most common type of carved stone from this period at Monkwearmouth and Hartlepool, while at Jarrow there is also a significant group of crosses. This distribution of surviving stonework is largely found in the major Northumbrian monastic establishments, although sculpture was also found at important minster sites. By the late 8th century there is an increased Mercian influence on the region's sculpture, and a cross shaft fragment of this date can be seen built into the south wall of the porch at St. Andrews Dalton-le-Dale, a church which also sits within a sub-circular churchyard another possible indication of an early medieval foundation. A short distance to the north at Easington St. Marys, a carved stone cross in relief of 10-11th century date can be seen built into the west wall of the Norman tower. The initial Viking raids of the late 8th and early 9th century appear to have had little impact on the output of the stone carving workshops of Northumbria. The establishment of the Viking kingdom of York in the mid 9th century however, was more significant. In the early 10th century, the great estates of the monasteries were being alienated by the Viking kings and redistributed to both Anglo-Saxon and Anglo-Scandinavian lords. The concentration of carved stone hogback style grave markers along the Tees valley, on land formerly held by the community of St Cuthbert, probably reflects the establishment of new churches by these new lords. The style of these monuments shows an increasing Scandinavian sense of identity in the Tees Valley but it is noticeable that hogbacks are almost entirely absent from the East Durham area. There is no evidence for the use of runic epigraphy in the project area, the nearest example being at Chester-le-Street.⁸¹ While the late Anglo-Saxon sundial from the south wall of the nave at Escomb is the best known in the region, there are other pre-Conquest sundials within the Limestone Landscapes area at Pittington, Dalton-le-Dale and Hart. Unlike examples elsewhere in England, none carry inscriptions and so have no firm dates apart from comparison with Escomb which may be 8th century.

Material culture

Ceramics

The best source for early Anglo-Saxon ceramics within the Limestone Landscapes area is from cemeteries. Three cremations all in urns were recovered from Norton just south of the study area,⁸² while tiny fragments of pot have come from other burial sites,

⁸⁰ Clack 1986

⁸¹ Cramp 1984, 54, 161

⁸² Sherlock and Welch 1992

such as Andrews Hill at Easington⁸³. Pottery from non-burial contexts is very rare, particularly towards the beginning of the early medieval period. The few known settlement sites in the study area such as Hartlepool and Hart have produced little and surprisingly little has been found at Monkwearmouth and Jarrow, although it does include some rare northern examples of Tating Ware, a type of pottery probably made in the Rhineland and traded extensively on the North Sea coasts of Northern Europe

Glass

Glass vessels are rare in the North-East but perhaps the best preserved is the Frankish claw beaker of the late 5th century made in the Rhineland and excavated complete from a probable barrow burial at Castle Eden. Other early burial sites of the 5/6th century have produced glass beads, including Andrews Hill (Easington), Norton (Teesside), and Blackhall Rocks. (Co. Durham) Window glass has been found in ecclesiastical contexts at Monkwearmouth and Jarrow as might be expected from the descriptions of Benedict Biscop's building work on the sites in the 7th century.

Metal objects

While there is increasing evidence for sub-Roman continuity on Roman sites in the north, the Limestone Landscapes area has little in the way of formal Roman occupation or settlement, save for the proximity of *Arbeia* Fort at South Shields immediately to the north of the study area. While re-assessment of late finds assemblages from such sites may provide evidence of the transition from Roman Britain to Anglo-Saxon England, the main source for early Anglo-Saxon metal objects is once again burials. In the East Durham /Limestone Landscapes area, the assemblages from graves are more typical of the culture of the Kingdom of Deira to the south than the Bernician burial rite north of the Tyne which is relatively low in material culture.⁸⁴ The 6th century cemeteries at Andrews Hill,⁸⁵ and Norton⁸⁶ have both produced a range of personal items including cruciform brooches, small-long brooches, annular brooches, buckles and wrist clasps, with, in some instances, mineralised preserved fabric still attached. The monastic site at Hartlepool has produced clay metalworking moulds including moulds for high-status objects such as a plaque showing a calf with a trumpet (presumably a symbol of an evangelist), and a small cross, either a mount or a pendant. The same site produced crucibles and slags which demonstrated copper alloy and silver working taking place on the site.⁸⁷ Iron smithing and the working of lead possibly for silver are known from Anglo-Saxon contexts in County Durham but from the more mineralised rocks of the Pennine areas of Teesdale and Weardale. In general, the quality of middle and later Anglo-Saxon metalwork is considered low compared with other parts of Anglo-Saxon Britain. With the advent of Christianity the tradition of depositing grave goods came to an end, this and a lack of excavated settlement sites for the period, means that most metalwork outside of cemeteries and monastic sites comes from chance finds. Possibly a chance loss or maybe a late deposit in a grave is an 8th century ring with runic inscription from Wheatley Hill⁸⁸. This has included a small long brooch found to the west of Hylton⁸⁹ and several notable finds discovered by metal detectors and reported to the The Portable Antiquities Scheme. These have included three brooches of 4-8th century date near Hart, where 2 silver coins, *stycas* of Athelred II 844-862AD and Alhred c.765-774AD, have also been found. Further north at East Bolden a copper alloy strap end dated to around 800-

⁸³ Hamerow and Pickin 1995, 44

⁸⁴ Cramp 1988

⁸⁵ Hamerow and Pickin 1995

⁸⁶ Sherlock and Welch 1992a

⁸⁷ Cramp and Daniels 1987; Daniels 1988.

⁸⁸ D HER 5900

⁸⁹ Miket 1982

999AD was found.⁹⁰ The few weapons identified occur as excavated and chance finds. A spear fragment from a grave at Easington,⁹¹ and twelve spears and spear fragments, shield bosses and a seax from Norton.⁹² Fragmentary iron objects are known from cemeteries, including knives from Easington and Jarrow and Monkwearmouth.

Bone objects

The acid soils of the north mean that bone objects do not survive well in buried environments and so items such as bone combs, common in other parts of the country are relatively rare. Examples are known from occupation sites at Jarrow and Monkwearmouth, and Church Street in Hartlepool. A 10th-century decorative bone strip, probably some form of mount, was found during an excavation at Ferryhill and is now in the Bowes Museum.⁹³



Figure 11. Carved decorative bone mount with Anglo-Scandinavian interlace design from Ferryhill and now in the Bowes Museum.

Other objects

Worked stone objects are relatively rare, although recently three stone bowls of early medieval date have been identified from sites in Sunderland, Dalden and Durham, one with an Anglo-Saxon inscription. Their function is uncertain, though it is possible they may have had a liturgical purpose.⁹⁴ A range of limestone containers were also recovered from the monastic site at Hartlepool.⁹⁵

Museums

In Teesside, the Dorman Museum holds the finds from the cemetery at Norton; the main early medieval collection held by Tees Archaeology being the 120 skeletons from excavations of the cemetery at Norton. In County Durham, the Bowes Museum holds the archives and finds from the cemeteries at Seaham and Andrew's Hill, Easington. Significant collections of Anglo-Saxon sculpture are held at Durham Cathedral in the Monk's Dormitory. The material excavated by Rosemary Cramp at St Paul's, Jarrow, can be found in Bede's World; where the objects from the Anglo-Saxon cemeteries at Andrew's Hill, Easington (on loan from the Bowes Museum) are also on display, and Norton on Tees (on loan from Tees Archaeology). Outside the region, the British Museum holds a small number of early medieval objects from the North-East, of which the 6th century glass Castle Eden Claw Beaker is the most significant for the Limestone Landscapes area.

⁹⁰ PAS Database, accessed 18/3/09.

⁹¹ Hamerow and Pickin 1995, 40

⁹² Sherlock and Welch 1992a, 32-34

⁹³ Batey 1990

⁹⁴ Hart and Okasha 2003

⁹⁵ Daniels 1988, 190

5.6 The later medieval Period. (AD1066 to 1540)

With the advent of the later medieval period there is an increasing amount of written documentary material available for study and also a greater and more substantial number of field monuments and upstanding buildings. In the North-East there is a long tradition of antiquarian and architectural recording, local topographical history and research into aspects of the social and economic context of the Middle Ages. It was not however until the second half of the 20th century that the subject of medieval archaeology began to be taken as seriously as the study of prehistory and Roman antiquities. In particular the idea of wider historic landscape study has become increasingly important through initially the study of deserted medieval villages of which the Limestone Landscapes has a significant number. This is particularly fitting as it is in the centuries following the Norman Conquest of 1066 that much of the character of the East Durham landscape was laid down.

In the late 1950s and 1960s there were a number of excavations undertaken at settlement sites in the Tees Valley, including the manor house of the de Brus family at Hart. There was also an increasing threat from development and several major excavations in town and country were undertaken to record sites before they were destroyed. In particular the excavations in advance of quarrying at Thrislington in the Limestone Landscapes by David Austin are of note. This was an early signal of a collaborative approach to later medieval studies which has characterised the best of so much research into this period and which unites the interests of archaeologists, architectural historians, historians, geographers and others.

The years following the Norman Conquest in 1066 were particularly traumatic north of the River Tees, where insurrection was met with brutal oppression by the new Norman overlords and much land was laid to waste (non productive), and many Anglo-Saxon landowners dispossessed to provide estates for William the Conqueror's liege men. To control the area and provide a bulwark against the Scots the county was made semi-independent with the bishop made a Prince-Bishop to act as a king between Tees and Tyne. This was to provide a unique environment for the evolution of the Limestone Landscapes for several centuries to come.

Agriculture and environment

The wealth and economy of East Durham during this period was still largely built on agriculture and we know from excavated evidence that the nature of this developed significantly during the period as major landowners sought to get the most from their estates. The rearrangement of villages in the years after the Norman Conquest had much to do with new Anglo-Norman landowners seeking to both control their tenants and make their agricultural endeavours more productive. The characteristic Durham 'green village' of two or more rows of houses alongside or around a village green dates from this period. The houses in turn would have long 'tofts' or private enclosures laid out behind them where the householder would grow vegetables or keep chickens and pigs for their own use. Beyond these would be the large open fields divided into strips and often worked communally. Under this feudal system each villager would owe a mixture of food rent or days labour to the lord of the Manor. In County Durham this might well be a member of the landed gentry such as the Bowes family around Daldon,

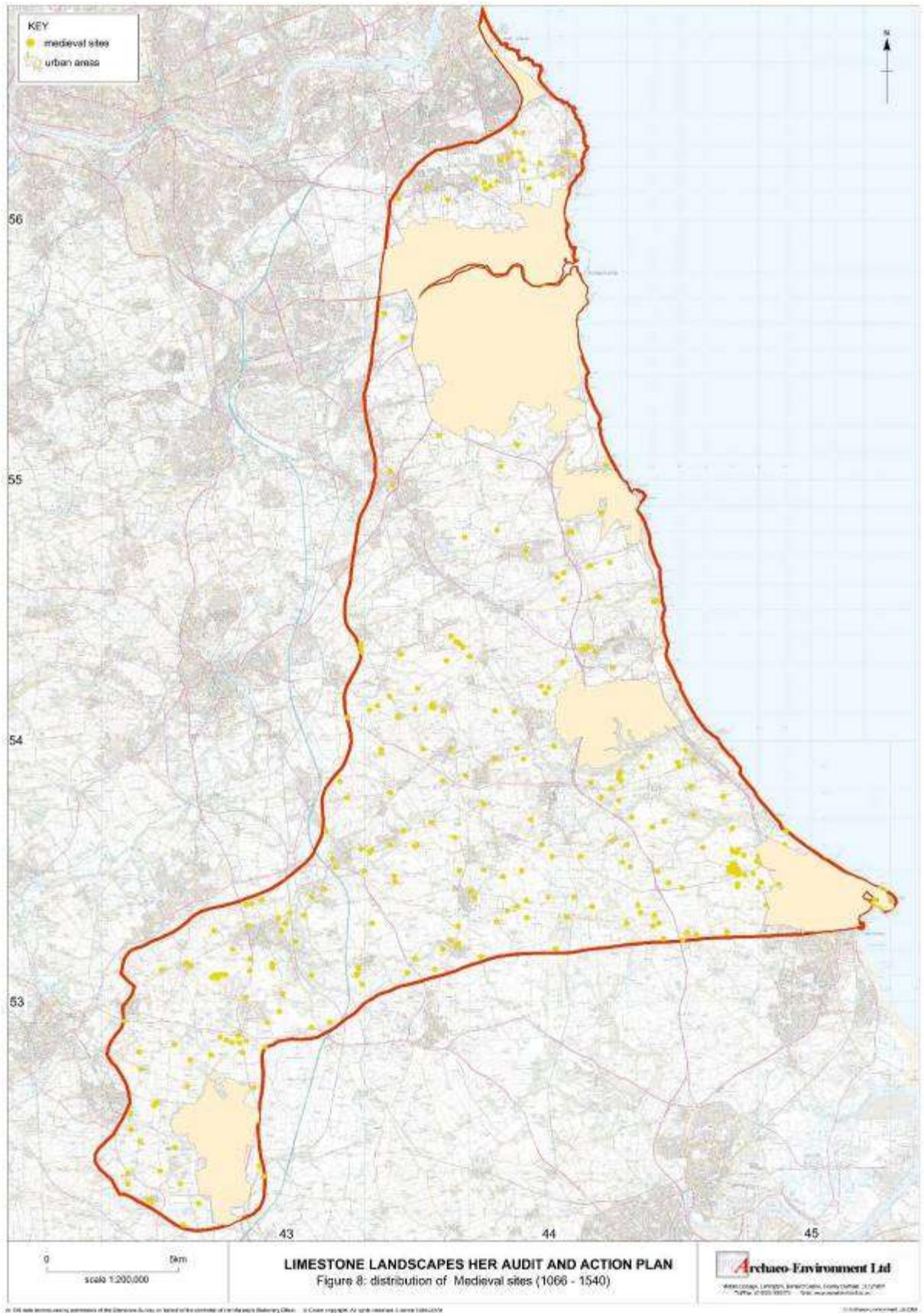




Plate 13. Aerial photograph of the deserted medieval village of Sheraton County Durham caught under low evening sunlight. The line of trees and houses to the left marks the village green, with tofts (private agricultural plots) to the right before a ditch in the centre of the photo separates it from the open arable fields marked by the rig and furrow now preserved under pasture. © Durham County Council

or the de Brus family at Hart or Castle Eden, but it was just as likely to be either the Bishop of Durham or the Prior of the great Benedictine monastery at Durham, both of whom held vast tracts of land across the east of the county. Many of these great estates were controlled from sizeable estate centres such as the Prior of Durham's residence at Hallgarth Pittington, the Bishop's castle at Bishop Middleham (always more of a large house than a castle), or the best surviving such building - Seaton Holme at Easington. Such sites would have been collections of major buildings with fine lodgings, chapels, kitchens and barns.

The nature of agriculture and food stuffs changed through the period responding to a number of factors, not least to wetter and cooler weather and major outbreaks of plague in the 14th century which saw the population significantly reduced. Nevertheless we know from excavated evidence from Thrislington and other sites of the declining importance of spelt wheat and development of other crops. Assemblages from other mostly urban sites in the region show an increasingly diverse suite of remains, including figs, grapes (presumably imported), sloe/plum and hemp from Hartlepool and flax from Darlington, the last two most likely for rope and cloth manufacture respectively.

A major survival in the landscape of this agricultural system are the areas of rig and furrow surrounding many villages of medieval origin. Although the characteristic 'corduroy' texture of the deep furrows and upstanding rigs now preserved under pasture

may date back only a few hundred years, the Limestone Landscapes does contain significant areas of medieval rig. Sadly this is increasingly being lost to urban expansion or modern agricultural improvement. Notable examples still do survive such as at Sheraton by the A19 and preserved under the golf courses at Castle Eden and Seaham. The villages, tofts and open field were not the only parts of this agricultural system which lasted for several hundred years and the use of woodland, unenclosed rough grazing on higher grounds and so called 'waste', the unimproved areas between settlements needs also to be born in mind. There was also more wetland in evidence, especially along the south-western side of the area between Bishop Middleham and Ferryhill where wet carr lands were valued for fish, water fowl and reed for thatching. At Ferryhill the top rank of this wetland exploitation was marked by a swan house owned by the Prince Bishop, the only person of sufficient status below the king to be allowed to eat such meat. The Bishop and the other higher echelons of later medieval society would also have regularly eaten venison from deer kept and hunted in parks. Within the Limestone Landscapes the best surviving example of such a park is at Bishop Middleham next to the castle, where large sections of the park wall and other features still remain.

Settlement

The settlement pattern of the later medieval Limestone Landscapes was overwhelmingly rural and based upon villages mostly established prior to the Norman Conquest. These were to be re-planned and expanded as the period progressed. The urban hierarchy which evolved was largely dominated by Newcastle and Durham. Newcastle even in medieval times was beginning to owe its importance to its role as a centre for North Sea trade and coastal sea-coal shipping. Durham, as the seat of the Prince Bishops, was also a town of regional significance, and traded through Hartlepool. As the main port for Durham, Hartlepool also developed early, and capitalised on the opportunity to supply English armies during the Anglo-Scottish wars of the 14th and 15th centuries.

Many of the buildings of the period would have been built in wood, wattle & daub and thatch and so survival of standing later medieval vernacular buildings, both domestic and agricultural, is very modest. A small number of medieval structures do remain including an exceptional survival at Rock Farm, Wheatley Hill, at the core of which are the remains of a long house where dendrochronology⁹⁶ has shown that the ceiling beams and roof of the main house are contemporary and were constructed from trees felled in the spring of 1570. Rock Farm within the heart of the later colliery village has only recently been identified and there may well be other similar surviving medieval structures which have not been recognised due to the problem of dating.

Castles and defensible structures

The construction of castles and smaller defensive towers is a particular feature of the middle ages. Such structures were built by the important and wealthy not merely for defence in a region which often found itself too close to the Scottish border, but often as a symbol of power and an expression of wealth. Curiously the boundaries of the Limestone Landscapes area have resulted in the area having few castle sites within its

⁹⁶ Dating timbers by analysis of the number and width of tree growth rings



Plate 14. Hylton Castle west front 14th century

boundaries. Hylton Castle on the west side of Sunderland is the only major defensible building and even here only the great gatehouse of the 14th century remains together with the 15th century chapel. Elsewhere the castle of the de Brus family, later to be kings of Scotland, at Castle Eden has been replaced by an elegant 18th century house. The so called castle at Bishop Middleham was in reality a substantial stone house and forms part of another important sub-group of castles and high-status residences which also included Seaton Holme at Easington and the Prior of Durham's lodgings at Hallgarth Pitington.



Plate 215. Seaton Holme, Easington (above), a rare standing example of a 13th century manorial residence. Ludworth Tower (right), an early 15th century tower house



In addition to these substantial residences, there is a separate category of smaller hall and tower-house built and occupied by the lower levels of medieval aristocracy. Amongst these are two standing and visually dramatic survivals at Ludworth and Daldon, while a third at Cleadon built before 1587 was taken down around 1800, although there are claims this was a folly and not really a defensive structure. Certainly there are a number of later buildings of the 18/19th centuries built in gothic or mock medieval style to catch out the unwary such as Kinley Hill tower near Hawthorn.

The only substantial medieval town within the Limestone Landscapes area, Hartlepool was provided with a defensive wall in the 14th century to defend against Scottish raids, of this only the Sandwell Gate survives.

Trade and Industry

The growth of towns and trade through the period also resulted in increases in industrial demand and production. Evidence for later medieval industrial production in

the region is however generally limited. Pottery production sites are known from Durham and Newcastle, but none within the Limestone Landscapes. The urban area of Hartlepool has produced evidence for shoe-making, bread ovens and the shaping of stone mortars.

Mineral extraction in the Limestone Landscapes would have focussed on quarrying stone for building including sandstones and limestones, the latter of which would also have been burnt to produce lime for mortar production. As for coal mining the majority of the East Durham coal resources lay beneath hundreds of feet of overlying Magnesian limestone and so were inaccessible to medieval mining techniques. Only on the western edge of the area were the coal seams exposed and even here although documentary evidence for medieval collieries does exist, there is little to be seen on the ground, most early workings presumably being destroyed by later mining. A few possible early sites have been identified, including Mallygill Wood at West Rainton, where extensive documentary evidence for mining is reflected on the ground by surface earthworks. The collection of sea coal, eroded from exposed under-seas seams and washed up along the coast was a recognised trade and there is evidence for its use in boiling pans to extract salt from sea water at South Shields, a process later seen on an industrial scale on the River Wear.

Our understanding of the road network is poor, even though a large number of local hollow-ways are associated with deserted medieval villages and the route from Durham to Hartlepool was well travelled, indeed it is not until the 18th century that even major roads are consistently depicted on maps.

Maritime

There was however during the medieval period a development in maritime transport with increased east coast and trade with the Baltic and Low countries. This saw quayside development at Hartlepool. A further important maritime development in the later medieval period was the expansion of deep-water fishing. Beach-launched cobles were employed and these did not require an extensive quayside infrastructure. Much of the activity may have been seasonal with temporary shielings being used by fishermen, evidence for which may survive only as place-names, for example South Shields. Sites like these are most likely to have been used in the winter months when some fish species, such as cod and haddock, came inshore from deeper waters. Assemblages of fish bones have been recovered in urban sites, such as Hartlepool, as well as ecclesiastical sites, such as Jarrow. Here there seems to have been a change in consumption from freshwater fish, including salmon, to deep-water species, such as cod, haddock and ling. The fish bone assemblage from Church Close, Hartlepool, shows a similar shift from the early-medieval exploitation of mainly inshore fish resources to medieval deep-water 'white fish'. There is also evidence for herring processing (smoking or salting) from the 14th century while Hartlepool has produced a number of possible net weights. Freshwater fish such as salmon are likely to have been fished from the wild on the River Wear, although there are also fish-ponds at many medieval manor house sites, such as at Hart and Bishop Middleham, all necessary when it is remembered that England was a Catholic country through this period and everyone was required to eat fish on a Friday.

Evidence for the ships themselves used for either fishing or trading is scarce, but excavations at Southgate, Hartlepool, uncovered re-used strakes and ribs from ships and a fragment of two clinker fastened planks, while a gravestone from Hartlepool shows an image of a medieval sailing vessel.

Church architecture

The Limestone Landscapes already had a number of pre-Norman Conquest churches and in the Saxon-Norman transition a number were rebuilt or extended including the lower stages of the tower at Heighington, as well as at Jarrow. In general, the 11th century was a period of great tower building, a phenomenon which appears to have straddled the Norman Conquest. There is the potential for other survivals of transitional architecture to be identified, although these are often hard to date such as St. Mary's at Seaham whose supporters claim as Anglo-Saxon but reasoned architectural analysis can at best say 11th century. Romanesque work is known most obviously from Durham Cathedral but the splendid north arcade at Pitlington is worthy of admiration in its own right. Other architectural highlights include the carved tympana at St. Michaels at Houghton le Spring, one of only two in the whole of the historic county of Durham.

St Michaels is a significant church not just for the impressive standing fabric but as an example of how the most ancient of religious sites have developed over the centuries. Archaeological monitoring in 2008 as part of improvements to under floor heating provided further evidence that the church may well stand on the site of a Neolithic ritual monument, contain re-used stone from a Roman building, was in origin an Anglo-Saxon church comparable in size to the monastic churches and Wearmouth-Jarrow, was rebuilt and extended in the later medieval period, and was from at least the 18th century subject to a number of phases of 'restoration' and repair. Although perhaps exceptional in its time depth it embodies many of the historical developments seen in the medieval parish churches of the Limestone Landscapes.

Some churches also had a defensible function; the massive Norman tower at Kirk Merrington is another example of 19th century 'restoration' having been largely rebuilt in 1850-51, but it appears almost as a tower keep and was indeed used as such and surrounded by a large defensive ditch dug around it by William Cumyn c.1143-44, although this is only attested in documentary evidence during a short conflict when there were two rival Bishops of Durham.

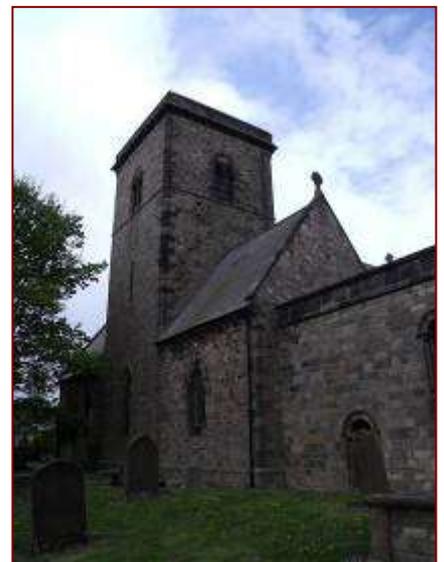


Plate 22. Kirk Merrington 12th century 'defensible church tower', fortified by William Cumyn the 'false' Bishop in 1143. rebuilt c.1850

A number of hermitages are recorded in the region such as the well known rock-cut hermitage at Warkworth in Northumberland, but within the Limestone Landscapes traces of another rare surviving small rock-cut chapel can be found at Blackhall.

Burial for the majority in medieval catholic England would have been in the parish churchyard, often in just a shroud and with a wooden marker, soon lost to time and weather. Wealthier members of society could afford prime spots at the east end of the church or indeed inside it close to the altar and make use of coffins and carved stone memorials. Most would be made from sandstone although there are some made from Frosterley marble such as those at Pitlington. A number of relatively large cemeteries have been excavated, such as those at Monkwearmouth and Jarrow, as well as occasional observations in several parish graveyards where space always at a premium shows the re-cutting and re-use of graves over many generations. Several medieval crosses survive including the particularly fine St. Helena cross at Kelloe.

Religious houses

Apart from parish churches there were also monasteries. Although a range of religious houses were established across England in medieval times, the power of the Benedictine Monastery at Durham was such that few other orders had land holdings in the county. Durham also established a number of daughter houses including the re-founding Jarrow and Monkwearmouth abandoned since the Viking raids of late Anglo-Saxon England. Dominican and Franciscans friars, less isolated and more involved in community work than the monastic Benedictines, established houses at Hartlepool.

Museum and archive collections

The archival holdings for the medieval period are, not surprisingly, substantial. The most important of these are those related to the Durham Palatinate and the Dean and Chapter estates. These are mainly lodged in the Archives and Special Collections of the University of Durham library. Significant archives of other pictorial records are also held here, including a range of late-19th and early 20th-century miscellaneous images in the North-East, many of medieval buildings. The local records offices hold a range of useful material, and for purposes of landscape analysis, there is a wide range of tithe and enclosure maps. For churches, the main archives are those of the Diocese of Durham. These include plans, quinquennial (5 yearly), reports and documentation relating to faculties. Other important on-line archives include Pictures in Print, a selection of early maps and topographical prints from the collections of Durham University Library, Durham County Council Arts, Libraries and Museums, and Durham Cathedral Library which are now viewable on the web at www.dur.ac.uk/Library/asc/pip/.

There are a number of collections of medieval objects in the region. Tees Archaeology holds a pottery reference collection for Hartlepool, while Hartlepool Museum Service curates material from the excavations in Hartlepool. The Bowes Museum Castle holds finds and site archives for a number of excavations including Thrislington, Seaton Holme and the altar screen from Monk Hesledon.

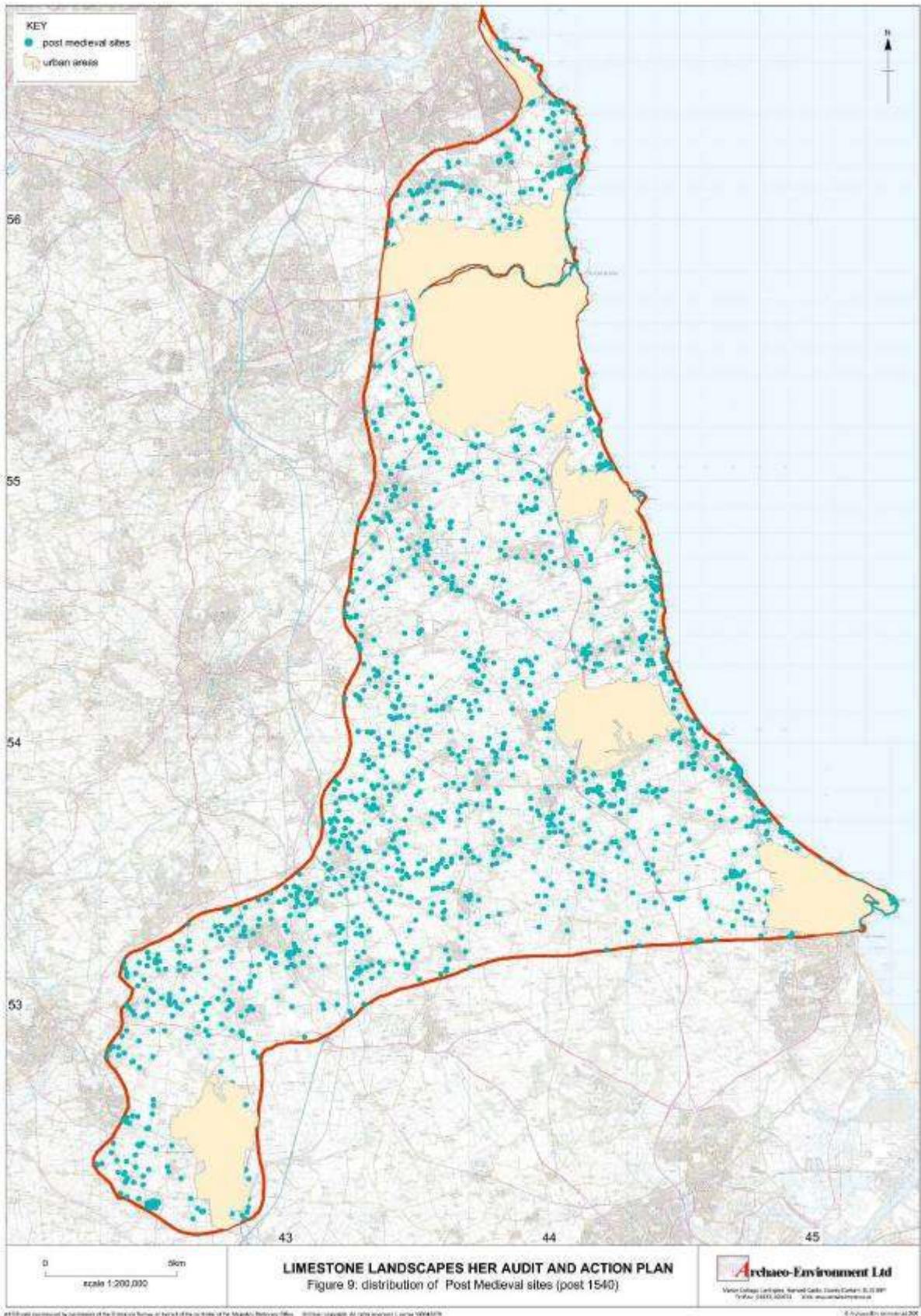
Plate 16. 15th c Altar screen from Monk Hesledon (right) carved of local stone rescued from the demolition in 1968. Bowes Museum.



5.7 Post-medieval. (AD1540 to the present)

With all of the previous historic periods the number of surviving sites, buildings, artefacts and documents is only a fraction of what once may have existed. Consequently our knowledge and understanding relies significantly on archaeological and historical research. For the post medieval period however and especially the nearer to the present we get, the amount of information becomes overwhelming until we reach the living memory of the people of the Limestone Landscapes themselves. In this section therefore it is only possible to provide a very brief overview of the last 350 years or so.

The post-medieval period in the North-East was one of radical and deep-rooted change, perhaps more so than any other period. It saw the transition from an agricultural economy to an industrial one; the shift from a primarily rural population to an urban one, the move from horsepower to, first, water, then steam, and finally internal combustion and the rise of consumerism; it encompasses both the Reformation and the rise of non-conformity. Although much of the modern landscape was laid out in this period, aspects of the post-medieval historic environment are now rapidly changing. For example, the colliery landscapes that once dominated much of east Durham have largely been reclaimed following the dismantling of the coal industry; the total removal of not just pithead buildings, but even spoil heaps, has fundamentally altered the cultural landscape of the area. The economic and social changes associated with later-20th-century de-industrialisation has also had an impact on less iconic elements of landscape of the North-East: farm buildings and non-conformist chapels are converted to holiday homes or business units, railways are uprooted and swathes of industrial workers' housing have been cleared. Against this background of change which in reality has been going on for centuries and will continue into the future, the post medieval period has been the subject of increasing interest and campaigns for conservation with the founding of numerous specialist interest groups such as the Georgian and Victorian Societies and larger charities such as the National Trust.



Post medieval settlement and landscape

Country Houses

The advent of gunpowder warfare led to redundancy in the defensive function of castles and very rapidly these were either turned into grand country houses such as at Hylton, or swept away and replaced by fashionable and above all comfortable country houses as at Castle Eden.



Plate 24. Nesbitt Hall, Monk Hesledon, an excellent example of a 17th century stone manor house.

In addition to major country houses the 17th-century also saw the construction of many smaller stone manor houses, good examples of such include Horden Hall and Nesbitt Hall. This tradition of manor houses and yeoman farmhouses continued into the 18th century, when a national programme of rebuilding and redesigning in new classical styles led to the predominance of a style of architecture which still dominates many historic towns and villages today. As elsewhere in the country, fashions in stately homes followed the broad path from Classicism to Gothic revival, when the classical symmetrical styles of the 18th century were rejected in favour of the highly ornate neo-gothic of medieval England.

Many houses were significantly re-built in the 19th century reflecting the increased wealth of not only the traditional land-owning families, much of whose wealth came from coal mining, but also new wealth through trade and manufacturing such as Sir William Gray, ship builder of West Hartlepool. In 1898 he built the eccentric and vast Tunstall Manor for it only to last some 28 years before it was demolished and replaced with something smaller and more manageable.

Within the Limestone Landscapes there are a number of surviving significant country houses, such as Windlestone and Elemore Halls, both of which have now passed out of the ownership of major families and gone through periods of institutional use, while Seaham Hall once the scene of Lord Byron's wedding and later the home of the Marquis of Londonderry, one of the richest of the coal mine owners, fell into disuse before rising again as one of the North-East's most prestigious hotels. Several more have been swallowed up by urban expansion such as Doxford Park and Shotton Hall, while the decline in income from land and the requisitioning of several houses by the military during the Second World War or the coal board, lead to decay and ultimately demolition



Plate 25. Coxhoe Hall of c.1725 (above left) demolished in 1956). Windlestone Hall (above right), 17th century with substantial century re-modelling of 1834.

for several more, notable house amongst them 18th century Coxhoe Hall once the home of the poet Elizabeth Barrett-Browning, Hetton Hall and the gothic splendour of Hawthorn Towers on the coast.

Designed landscapes

Often accompanying the new houses of the aristocracy, gentry or indeed trade and industrialists representing 'new money', were gardens and parks, often referred to as designed landscapes. There are no certain 16th-century formal gardens in the region, though it is possible that the earthworks of an ornamental garden with associated water features discovered at Hylton Castle, Sunderland, may date to this period. The 18th century was the prime period for gardens in the North-East. Armstrong's 1769 map of Northumberland and Durham shows a number of estates which were recently completed by the time it was published. In the mid 18th century Hardwick Park at Sedgfield, parts of the layout and buildings were designed by James Paine. Although much of the original park survived, its condition deteriorated through the 20th century, but since 1997 it has been the centre of a major restoration project, involving archaeological and architectural recording. It's famed 'picturesque' qualities drew visitors during the 19th century to Castle Eden with its beautiful dene filled with the mysterious yew and many wildflowers. Descending from the grand new house, the dene served as a complementary garden in the grand, wild style. Walkways were cut through this woodland so visitors and residents might perambulate and Rowland Burdon (son of the founder, and himself deviser of Sunderland's first iron bridge) constructed a footbridge at

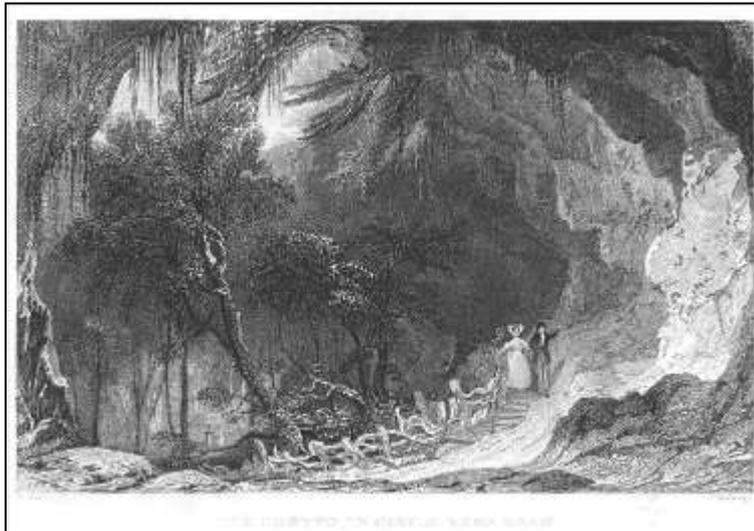


Plate 26. Castle Eden Dene (a Registered Historic Park and garden) from an illustration by Thomas Allom of c.1832, visitors can be seen admiring the natural splendours of 'The Grotto' part of several fashionable picturesque walks through the Dene.

the upper end and a pathway down the length of the dene in the 1790s and "Thus the most magnificent of magnesian limestone glens which fringe the eastern coast of the County of Durham was rendered accessible through its whole length revealing its wild beauties at every turn." The dene was opened up to the public by its owner in 1850 and has remained an attraction ever since. Today the site is a National Nature Reserve and consequently most interpretation focuses on the natural environment rather than its history.

Designed landscapes were not just for the living. Before the turn of the 19th century most parishioners, conformist or otherwise, were buried in a churchyard or chapel cemeteries. But with overcrowding and the health hazards that presented, larger often privately owned sites now came into being as commercial ventures often with considerable landscape design. A prospectus for Newcastle General Cemetery was published in 1834 and after the Burial Act of 1853 cemeteries were built in collaboration by local authorities and churches through the formation of burial boards. Cemeteries created at this time include Harton Cemetery, South Shields (1890) and of particular interest o the Limestone Landscapes Houghton Hillside Cemetery within an abandoned

limestone quarry with several rock cut tombs and now being restored by an active friends group.

The North-East was slow to develop public parks in comparison with other parts of the country but Mowbray Park in Sunderland was opened in the 1850s, and the loss of Low Barnes House around 1900 provided further public space.

Settlement

There were significant changes in the settlement patterns of the region in the post-medieval period. The 17th and 18th centuries saw Most settlements whether rural or urban increase in size and evolve in character with a massive rebuilding programme in the ancient villages and growing towns of the Limestone Landscapes, often in Classical styles made possible by a general increase in wealth and a change in tenurial systems which encouraged more investment in housing. Until the coming of the railways in the early 19th century this would still have used largely local stone and materials in construction. Most apparent was the massive expansion of urban areas; Hartlepool, and Sunderland were among the major towns to expand due to a massive increase in industrial production and the associated demand for labour. Going hand-in-hand with urban expansion there was continued evidence for rural settlement shrinkage and desertion which often resulted from the conversion of open field townships into a series of several farm holdings. Some of this rural depopulation was enforced by land owners keen to improve their land, in other cases increasing mechanisation merely meant less labourers were needed and better wages could be found in the mines and factories as the 19th and 20th centuries progressed. This manifested itself in a number of different ways. Architecturally the small squat stone cottages of the 17th century with small windows were now considered too dark and crude. Existing cottages were extended, heightened and refaced to fit in with the new symmetrical unfussy fashions often using brick to extend the older stone. Rows of new houses, often two to three storeys high were constructed of stone and brick and became the predominant building style in many villages and towns. For much of the Limestone Landscapes this in itself was to be a transitional phase of architectural style. For those settlements with little or no industry, such as Bishop Middleham, there was little change. A few additional rows of terraced



Plate 27. Bishop Middleham post medieval settlement evolution; 18th century housing on medieval plots, expanded up the hill in Victorian times (left). Further expansion provided by 20th century social/mining housing.

housing and a gradual shift towards

Victorian designs were sufficient for a village where the nearest coal measures were too deep and too difficult to drain to merit investment until the 20th century. However at Cornforth, a whole new village of West Cornforth, was created in the Victorian period to accommodate the growing population attracted by the growing industry. The new settlements had a very different character with houses of brick and laid out in terraces

and rows alongside the existing village settlement pattern. This was a more common picture in this area. Easington village acquired Easington Colliery to provide the social infrastructure for the coal miners. Seaham acquired Seaham Harbour to export the coal from the nearby mines. No longer were settlements a result of a thousand years of evolution alongside fresh water supplies and south facing slopes. Settlement was now dictated by the presence of commodities such as coal and the transport infrastructure to get goods out to market as soon as possible. Because the Limestone Landscapes had bountiful supplies of limestone and coal, plus a proximity to the sea, the landscape was to move through a dramatic change from rural landscape with a mixture of dispersed and nucleated settlement in ancient locations, to an industrialised landscape criss-crossed with railways on the surface and mines below ground. Rapidly expanding new towns and colliery villages swallowed up old farms and farmland turning them into factories, mines, works yards and railway stations.

The 20th century saw many of these processes accelerate as Victorian brick terraces were considered often to be sub-standard and in the period after WWII identified as Category 'D' by Durham County Council and in many cases whole streets or communities were demolished and residents moved to new council housing. The paternalistic socialist drive to improve the lot of mining communities was exemplified in the post war period by the creation of several new towns at Washington, Aycliffe and above all Peterlee south of Easington. Named after the great Durham miners leader and first Labour leader of the county council, Peterlee was intended to provide modern housing with large amounts of green space and inspirational architecture such as the Passmore Pavillion, and attract new technological industries to replace the old heavy industry. History shows the experiment was not a complete success but Peterlee is an important example of 20th century architecture, town planning and idealism of which the Limestone Landscapes should be proud. The late 20th century and generally increased living standards have seen the gentrification and conservation of many of the more visually attractive villages of the Limestone Landscapes, but threats still remain to many of the red brick mining communities through programmes of government sponsored renewal based on the best of intentions but ultimately destructive to good quality Victorian housing and schools and the communities who value them.

Agriculture

The post-medieval period saw significant changes in farming and agriculture in the Limestone Landscapes. As with most regions, the 16th and 17th centuries saw the progress of enclosure by agreement, with further Parliamentary enclosure in the mid 18th to mid 19th centuries. The enclosure of former lowland wastes or heaths is responsible for the many lowland 'moor' place-names. An excellent example of this early enclosure in this case dated 1634, is to be found at Sherburn and Shadforth⁹⁷. Here the Thomas Morton, the Bishop of Durham and land owner was petitioned by his tenants who were desperate to improve the land claiming that it was "*for the most part wasted and worne with continuyall plowieing and therby made bare and barre and vrie unfruitful...*"⁹⁸. This period of massive agricultural reorganisation was to create the landscape that we are familiar with today, large regular fields often increasingly rectangular as the period progressed and laid out in a regular pattern. These fields were enclosed in various materials depending on the local geology. In the Limestone Landscapes, many were bounded by limestone walls, particularly if they were adjacent to roads, while internal fields were often enclosed by hedges. These wall or hedge-lined enclosures and the paths, tracks and roads created as a right at the time of enclosure are now a key part of the character of the Limestone Landscape.

⁹⁷ Tolan-Smith 1997c; Heppell and Clack 1991

⁹⁸ Ibid p135

In southern Durham in particular, the pace of agricultural change was further hastened by agriculturalists experimenting with new crops, animal breeding and other agricultural innovations. New forms of farm buildings were introduced to improve, breeding and animal husbandry and referred to as 'model farms'. County Durham has only four or five such exemplary farms and none are in the Limestone landscapes. Here instead landowners appear to have improved on a more modest scale with ranges of farm buildings embodying the ideas of improvement on a more modest scale, often in ranges 'L' or 'U' shaped in plan attached to new farmhouses. Drainage of former wet areas and the improvement of rough grazing with lime and manure did mean a larger area than ever was brought into production. A final phenomenon in farm design was the advent of machinery; both horse-driven gin-gangs and latterly steam-powered engines. The result of much of this mechanisation was fewer people employed on the land, and rapid change as new technology became available often leaving little trace of short lived innovations. Landscapes which had been dotted with windmills, saw the demise of these structures to be replaced with more heavily mechanised mill buildings in ports and major towns, resulting in another change in the landscape character.

Industry and technology

The post-medieval period saw a massive increase in industry, reflecting and causing technological changes, new patterns in social organisations and an increased demand for consumer goods, both within Britain and in its burgeoning empire.

Power and utilities

For much of the post-medieval period the main sources of power were animals, wind and water. The Limestone Landscapes has a high number of surviving 18th and 19th century tower windmills such as Fulwell, Whitburn, Hart and Easington. An unusual example of a surviving windmill is the 18th-century mill on Shackleton Beacon, which was converted into a folly in the 19th century. Watermill sites are less common but a number are known although most are now just earthworks or tumbled masonry such as at Hawthorn,



Plate 28. Fulwell windmill, restored and open to the public.

The advent of steam power in the late 18th century and the steam engine replaced many of these other forms of power. Stationary steam engines were used on farms, often replacing earlier gin-gangs.



Plate 29. Haswell Colliery pumping engine tower c.1830.

Steam engines also provided power to coal mines, particularly important on the East Durham coalfield where there are few well-preserved examples surviving but one of the most dramatic and best preserved is at Haswell Plough, where a huge beam engine and construction based on the deep mining technology developed in the Cornish tin mining industry was built in c.1830.

Until the 19th century most water was supplied through wells or pumps. In the 19th century the provision of pumps increasingly became a field for public benefaction; The massive increase in population and the increasing demand for water by industry led to a series of massive infrastructure projects to ensure that demand from the new

urban centres of the region was provided for. Major reservoirs were built, including Hurworth Burn to service Hartlepool in the late 19th century, but unlike the West of Durham where there were several major reservoirs constructed, most of the drinking water for East Durham was pumped up from below the Magnesian Limestone. This required the building of a number of pumping stations, in particular those designed by Thomas Hawksley for the Sunderland and South Shields Water Company in the mid 19th century which left a series of dramatic gothic and italianate buildings down the coast of the Limestone Landscapes. As well as the reservoirs themselves some elements of the associated service buildings, such as the Grade II Listed Several important pumping stations survive. The best is probably Ryhope (Tyne and Wear) (Grade II* Listed), which still retains two 100- horsepower beam engines.

Extractive Industries

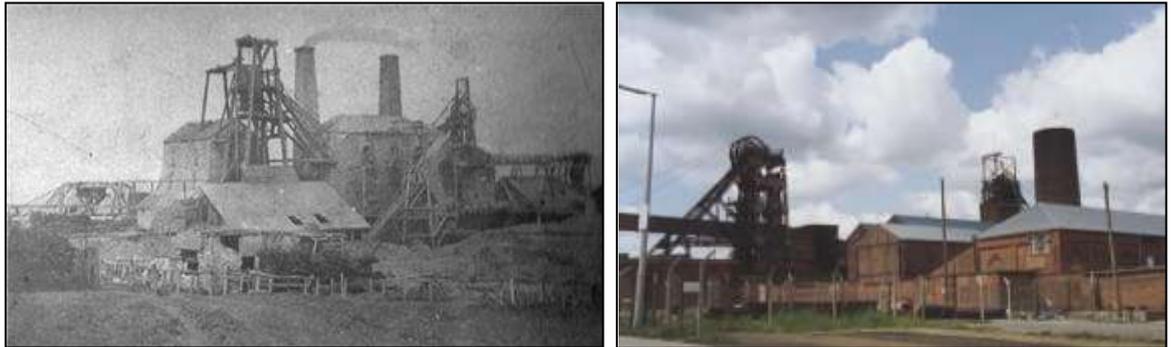


Plate 30. From small beginnings such as Haswell Colliery, seen here on May 20th 1864 photographed by Joseph Watson, Newcastle upon Tyne, (© Easington District Council, 'People, Past and Present' archive), colliery size grew in East Durham until the early 1990's with major collieries working out under the North Sea and closure.

Coal mining

By the end of the medieval period the coal industry was already important both to the region and wider nation. Although there had been coal mining below the western escarpment of the Magnesian Limestone in the 18th century and before at sites such as Crowtrees, Quarrington Hill and West Rainton, it was not until 1811 when one of the first sinkings to prove the existence of a coalfield underneath the overlying Magnesian Limestone was made at Haswell and carried out by Dr. William Smith. It was not however until the sinking of a shaft at Hetton-Lyons Colliery by the Hetton Coal Company commenced on the 19th December 1820 that coal reserves were proven beneath the Magnesian Limestone and the first coal commercially produced by September 1822. This marked the start of a massive expansion of coal mining in East Durham. Initially many landowners developed a number of small collieries, but as time and economic pressure continued these often amalgamated into larger collieries joined underground with one large surface complex of washing and grading facilities. Ultimately this was to lead to a small number of huge collieries on the coast such as Murton and Seaham, Vane Tempest whose working stretched out several miles under the North Sea. The development of technology both within the coal industry itself and in its associated infrastructure (most notably waggonways and railways) was fundamental to the industrial and social development of the North-East. The level of urbanisation and development in the former core areas of the coalfield, coupled with the recent focus on regeneration, and active political hostility to preservation or recording during the final phases of closure, has however seen the virtually complete destruction of the above-ground remains of the 19th- and 20th-century heyday of the industry. Even the once-dominant spoil heaps have been removed from the landscape. Consequently the surviving visible features of the industry are dominated by the earlier phases of the

period. Remains of the late-19th to 20th-century collieries of the East Durham coal field are few and far between and of these the pithead complex at Elemore Colliery is outstanding and now a listed building. Most other major structures have been demolished and the sites reclaimed leaving only the occasional headstock wheel remounted as a memorial to mark a collieries passing. More evidence still survives of the social side of mining in the form of housing, institutes, working men's clubs, schools, colliery offices, pit disaster memorials and the like.

Memories also have not yet been extinguished and the relatively recent demise of the industry means that there are still many individuals with first-hand experience and memories of the industry. This rich seam is beginning to be worked by projects such as the Durham Miner Project, run by Durham County Council.

Quarrying

The geology of the Limestone Landscapes has long been exploited and quarrying has taken a range of forms over time. Small quarries clearly utilised for building stone are found widely in the Magnesian limestone areas of County Durham, but the late 19th and 20th centuries have seen the development of significant industrial scale quarries for sand such as at Sherburn Hill and stone at Thrislington and Raisby. Stone was not only used for building, but also a range of other products including millstones, creering troughs, water troughs and mortars and in more recent times road construction



Plate 31. Quarries, pre 20th century, small and for local use at Hastings Hill (above). Modern and vast at Thrislington (right)



Lime

Most early and small-scale limestone burning is likely to have taken place in small clamps, rather than specially constructed kilns; these will survive as earthworks and below-ground deposits, but have not been studied within the region. The structural remains of limekilns are probably mainly related to commercial manufacture of lime for agricultural and constructional purposes and there are a number of small one or two pot 18th and 19th century kilns across the Magnesian limestone. With the advent of the railways, bulk transport became easier, and large industrial sized kilns at Marsden and Ferryhill were linked into the railway system or constructed close to harbours as the only practical way of moving bulk amounts of lime by sea. Despite extensive survey and protection of limekilns undertaken for elsewhere in the region, the Magnesian limestone still requires further survey.

Salt

The post-medieval coastal salt industry, using direct boiling with coal fuel to extract salt from seawater, was centred on South Shields and on the Wear at Sunderland where the Robert Bowes of Barnes Park developed extensive salt pans before 1571. Salt extraction was particularly significant in the 17th century and earlier 18th century, and at its height consumed over 250,000 tons of coal. One reason for the growth of the industry was the abundance of virtually free small coal ('pan coal'), effectively a by-product of collieries and coal transport since it had no market in the coastwise export trade for house coal. The coastal industry declined to extinction in the later 18th and 19th centuries, due largely to competition from the Cheshire rock-salt-based industry (though another factor was the loss of free pancoal, as steam engines and other industrial uses produced commercial markets for small coal).. 'Pan' place names such as Panns Bank, Monkwearmouth identify the locations of direct-boiling saltworks.

Iron and steel manufacture

The Limestone Landscapes do not contain the site of any notable iron or steel works, although the limestone itself was utilised in blast furnaces. Iron and steel products were manufactured though, and in particular at Seaham cable manufacture was important and the cable for the first trans-Atlantic telephone wire was produced here by the firm of Glass & Elliot owned by the local mine boy made good Sir George Elliot, who also arranged for a new tongue for the bell of Big Ben to be made at Houghton foundry.

Ceramics, brick and tile

A number of important pottery industries existed in the North-East in the post-medieval period. Over one hundred firms are documented as having produced pottery in the Tyneside region alone between 1730 and the mid 20th century. Most fineware production, such as transfer-printed whiteware and lustreware, had ceased by about 1900 the exception was the Sunderland Pottery Company (later the Wearside Pottery Company) which existed from 1913 to 1957. Initially it produced a range of brown wares from local clay, but later specialised in fireproof cooking ware, ornamental ware and mixing bowls. Maling Ware had a much longer production life; the factory was established in 1762 and operated on a site at North Hylton until 1817 where some of the original buildings are now believed to be incorporated into farm buildings.

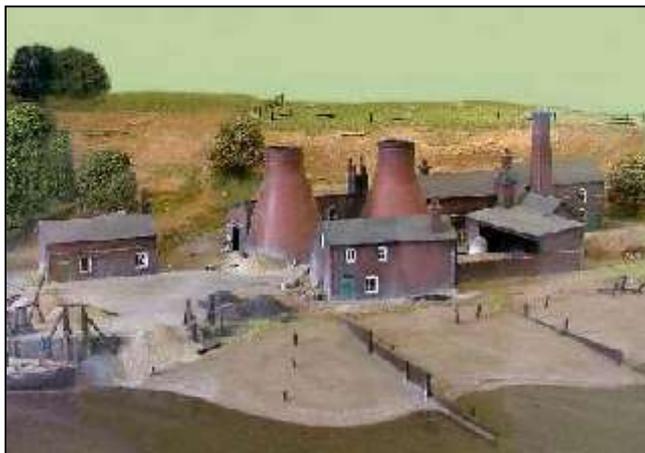


Plate 32. Sunderland was a major production centre for ceramics in the 18th and 19th and 20th centuries, famous in particular for lustre ware (above right) and Malings Pottery founded in 1762 at North Hylton (Model courtesy of Sunderland Museum)

Although many **brick and tile** works are marked on the 1st, 2nd and 3rd edition Ordnance Survey maps and provide much of the distinctive hard red brick of the coal filed villages, very few survive, though flooded clay pits are known.

Glass

Crown glass manufacture was an important trade along the Tyne, though the industry had declined by the mid 19th century. At around the same period it was replaced by the Sunderland glass industry making sheet glass using the rolled-plate method. There are, however, no upstanding remains of either industry.

Transport and communications

Although the basic network of main roads in the region is already recognisable by the medieval period, the increased number of maps available from the 17th century onwards allows the road network to be plotted in detail. As well as the improved recording of existing routes, there was an expansion of the number of roads in this period. The expansion of settlements in industrial areas led to an accompanying increase in local streets and roads but many remained un-surfaced into the 20th century with scoriae blocks often used in colliery villages.. The mid 18th century also saw the construction of toll roads; this was a scheme by which local business people could charge a toll for using a road, using the money received to maintain the road. These roads often transformed pre-existing informal routes into formal roads and mining companies and businesses were behind many of the road improvements as they were seen as a requirement for the successful transportation of goods. After 1790, most of the toll roads created were in the north of England reflecting the changing pattern of economic growth during the Industrial Revolution.

Railways

The North-East is celebrated as the home of the railway, which grew out of the demands of the coal trade to move bulk goods quickly and cheaply. Indeed the celebrated first journey by locomotive on the 25th September 1825 left the Brusselton Incline, just outside the study area at 8am in the morning and changed the face of the world. Horse-drawn waggonways developed from the early 17th century until the early 19th century. The remains of a late-18th and early 19th-century wooden waggonway were uncovered beneath later spoil tips close to Lambton D pit.⁹⁹

The region was also important for the development of the incline and the rope-hauled railway and several examples are known. The incline, tunnel beneath the road and site of the engine house at Quarrington Hill above Crowtrees Colliery can still be discerned.

The neo-Classical Monkwearmouth Station is now a museum, and its original 1867 booking office has been restored. Important protected railway buildings include Timothy Hackworth's house, and the adjacent Soho Engine Works in Shildon which are now part of the National Railway Museum and within the boundaries of the Limestone Landscapes as is a stretch of the original route of the Stockton and Darlington Railway.

Ports and harbours

Ports and harbours were an important element of the economic life of the North-East. Before the advent of the railways, the bulk of the region's industrial production was transported by ship. Hartlepool has been a port since medieval times and developed significantly with major expansion at West Hartlepool in the 19th century with docks and ship building as did Sunderland. The vast expansion of the coal industry necessitated the creation of dedicated coal staithes. For example the North Dock (1850) and South Dock (1837) in Sunderland were primarily for coal export. In Hartlepool, the decline of the port from its medieval high point was only reversed in the 19th century with the building of docks for the coal trade As well as the major docks, a number of smaller harbours, such as Seaham (Co. Durham) were also purpose-built. The Vane Tempest Stewarts had purchased the Seaham Estates in 1821; attracted to them by their

⁹⁹ Ayris et al 1998

proximity to Lady Anne's coal mines at Rainton and Penshaw. Lady Anne at the tender age of 19 was already the second largest coal exporter on the River Wear, behind Lord Lambton, and had an annual income of over £60,000. Lady Anne had to send coal from her pits at Rainton to Sunderland Harbour for export. Lord Stewart knew that if they could build their own railway line and harbour they would save £10,000 in fees each year. After much fund raising, Seaham Harbour was built in the 1820s at a point from which the Marquis of Londonderry could export coal from his mines. An associated settlement called Seaham Harbour grew up, not as originally planned in a classical crescent style, but initially as a jerry built squatter style settlement built of waste limestone dynamited out of the water and ships sails. Although these houses were eventually replaced with more solid Victorian structures, the harbour and town have become somewhat divorced by modern developments and road improvements. The creation of a harbour in the 1820s also encouraged a range of related industries such as rope making, glassworks, ship building and the necessary support structure of inns, chapels, schools and institutes, and eventually led to several programmes of harbour extension to attract larger vessels.

The advent of increased shipping led to a need for a fuller network of lighthouses and associated navigational and life-saving infrastructure. The first lighthouses date to the later 18th century and in 1871 the Souter Lighthouse became the first ever light to be powered by AC electric current. An organised coastguard was formed in the early 19th century; coastguard cottages still stand at Hawthorne Hythe, but many others including those at Seaham Harbour are now used as storage for fishermen.

Entertainment

The post-medieval period has produced a wide range of evidence for what might be broadly called entertainment. This broad heading covers a range of licit and illicit activities, many of which have left surviving material remains. Alcohol consumption and production has been an important element of social life in the North-East. There were a large number of local and regional brewing industries, and a number of important brewery buildings still survive. The 19th-century Castle Eden brewery still stands (Grade II Listed), but closed as a brewery in the 1990's and is now a hotel/pub.

Although brewing was a widespread industry, there were much stricter controls on the production and import of spirits. This had two consequences: smuggling liquor from abroad and illicit production within the region. Both activities peaked in the late 18th and early 19th centuries, a period of high tariffs due to the Napoleonic war

Entertainment of a less refined type was also available. Cock-fighting was a popular sporting pastime, and a number of cockpits are recorded although practically non survive, an exception is at Barnes Park, Sunderland where the now in-filled circular pit can still be discerned amongst the grass.

On a more cultured level the North-East is home to a number of important, purpose-built museum buildings. Sunderland was home to the first local authority museum outside London, and the museum, library and winter garden were opened in 1879. Although the Winter Garden was destroyed during World War II (and recently rebuilt) the rest of the original building is still used as a museum.

The 19th century also saw the development of coastal holiday resorts and although the Limestone Landscapes coast has no major 'resort', the beaches at Whitburn, Seaburn and Roker have some features and architecture of 20th century seaside nature, Marsden Rock, the grotto and cliff lift has been a tourist attraction for some years and the caravan sites at Crimdon have served a willing market for some time.

Religion and ritual

The transition from the medieval to post-medieval period broadly coincided with the Reformation in England. This had a fundamental impact on almost all aspects of religious behaviour, but also land holding and ownership following the dissolution of the monasteries. In County Durham however while the Prior and monastery of Durham disappeared it was replaced by a Dean and college of canons with largely the same extensive estates.

Despite the end of monastic life, parish churches and secular foundations continued in use. In County Durham the biggest influence over parish churches was Bishop Cosin. He was responsible for the internal reordering of the Cathedral itself and of several parish churches, and is best known for the quality of the wooden fittings he commissioned, of which significant features can be seen at Houghton-le-Spring.

In the 18th century there was little church building in Durham but St James at Castle Eden built in 1764 is a notable exception and although built on ancient foundations is possibly the earliest Gothick revival church in the north of England.

Church building continued into the 19th century following the Church Building Act of 1818, most of the commissions for colliery villages were of a relatively simple Gothic design. There was a particular increase in the creation of new parishes and consequently church construction from the 1860s following the passing of the Ecclesiastical Commissioners Act (1860), which freed up the powers of the Durham diocese to increase provision in mining areas, thereby combating the increasing influence of non-conformity and of immigrant Irish workers desire for Catholic places of worship.

The rise of non-Conformity, especially the New Dissent (Methodists) grew out of John Wesley's 18th-century Anglican reform movement. The Methodists themselves experienced a reform movement, when the Primitive Methodists split from the Congregationalists in 1810. The large numbers of physically and socially marginalized population groups in the North-East created by the demand for new labour by the rise of industry were fertile ground for all forms of non-conformity.



Plate 33. Hetton Primitive Methodist Chapel 1858. Non conformist religion found an eager audience in the working classes.

Catholicism was another important non-Anglican current in the religious life of the North-East. The area retained a high level of recusancy, There is little 17th-century ecclesiastical evidence for Catholicism due to the need for concealment. By the late 18th century it was safe enough for Catholicism to be practised in the open, as long as it remained discreet. Small chapels were attached at Hutton Henry (1824-25), built by the

last Roman Catholic chaplain of Hardwick Hall, although it was rebuilt in the late 19th century. Following the Roman Catholic Relief Act of 1829 there was a surge in the construction of Catholic churches to accommodate existing congregations and an expanding demand from Irish immigrants. New churches include Holy Trinity at Wingate of 1840 and

In the post-medieval period, although internal funerary monuments continued to be used in churches, the practice of placing gravestones over burials became increasingly common. As has been mentioned already existing medieval churchyards increasingly struggled to cope with burial of the expanding population, and for a time new mining villages continued to use old churchyards such as Blackhall Colliery utilising Monk Hesledon, until new churches and purpose made cemeteries such as at Wheatley Hill were built and laid out.

The 19th and 20th centuries were also to see the development of a new form of funerary monument in the form of memorials for mining disasters and the soldiers, sailors and airmen of two world wars. Such monuments are well preserved and form important elements of the communities all over the Limestone Landscapes.



Plate 34. Memorials; to mining disaster of 1880 at Seaham (left), and to the World Wars at Wheatley Hill (right)



As well as Christianity, Judaism played a part in the religious landscape of the post-medieval North-East with important communities in South Shields and Sunderland and there are Jewish cemeteries or sections in larger cemeteries at Hartlepool (Hartlepool Jewish Cemetery), South Shields (Harton Cemetery, Jewish section), and Sunderland (Ayres Quay Jews Burial Ground; Bishopwearmouth Cemetery, Jewish Section). There is also a former synagogue in Barnes Park, Sunderland.

Social provision

With the disappearance of monastic houses following the Reformation there was a shift in patterns of social provision. Whereas in the 16th-18th centuries private benefaction and charity was the main provider of social housing, medical care and education, in the 19th century the state increasingly assumed responsibility for social support. An exceptionally important development in East Durham was the Durham Aged Miners Housing Association which grew from the vision of Joseph Hopper, a miner and lay preacher, who believed that a man who had served in the coal mines from the age of 12 to 65 or beyond deserved better than to be evicted from his tied colliery home when he retired. A small weekly levy voluntarily donated from miners' wages plus donations of

land and materials from mine owners and others, allowed the homes to be constructed and let free of charge. In its early days it struggled to build new houses and in 1899 bought the whole village of Haswell Moor to provide homes as well as building at Bolden and Shotton Colliery. Although the Durham Coalfield is no more, the Association has survived and prospered, and continues to provide good quality homes for older people, the less physically active or disabled people. Preference is still given to ex-miners. The Association has a wonderful legacy of buildings across East Durham which in no small part provide the character of many of the former mining villages.

Plate 35. Joicey Aged Miners Homes Philadelphia Lane , Shiney Row of 1906 for the Durham Aged Miners Housing Association. Hosuing such as this across the Limestone Landscapes coalfield is a distinctive element of many villages and settlements.



Defences

The great period of cross-border warfare came to an end by the mid 17th century, although issues of defence remained important and were often focussed on the threat coming from the North. By the mid 17th century this had changed with first the Union of the Crowns and then the Civil War leading to the need to defend against enemies from the south as well as the north, a Scottish garrison at Hartlepool during the Civil War also augmented the town's existing medieval defences.

A number of defensive coastal batteries were established in the 19th century including the Heugh Battery at Hartlepool, now restored and manned by volunteers and open to the public. Heugh Battery saw action in WWI in 1914 repelling an attack by the German fleet. Some batteries such as Trow Rocks near South Shields, were primarily intended for the training of volunteers and an emplacement and replica 'disappearing' gun can be seen on the site.. There is also good number of rifle ranges dating to the surge in volunteer activity in the second half of the 19th century. These were usually within easy travelling of centres of population, for example, Trow Quarry at South Shields and the range at Whitburn where the land for the range was bought from Sir John Sherburn by the Territorial Force Association in 1912. The camp was occupied by the Regular Army throughout the First World War and wooden huts were built for a garrison approaching battalion strength. A trench system was dug using the characteristic 'Greek Key' pattern of firing bays and communication trenches. After the war the camp reverted to the Territorial Association until the Regular Army returned between 1939-45. During this period, some of the trenches of the earlier war were re-excavated. By 1953 the wooden huts of the First War were replaced by the modern brick bungalows which today stand on the range. This work was carried out between 1954 and 1962, providing accommodation for approximately 250 troops. During the 1960s the Royal Engineers carried out ground clearance works, eliminating the 'bumps and hollows' between the butts and the camp and removing almost all traces of the trench system. At the same time concrete pillboxes were demolished and destroyed. The range still remains active and well used today by the MOD.

*'15 August 1940... 13.30... Easington Colliery had approximately fifty houses damaged, twelve people were killed, most of the deaths occurring in Station Road, thirty people were injured. Little Thorpe hospital, Easington also suffered damage and ten persons were injured.'*¹⁰⁰

The dark cloud of war hung over Britain in the 1930s. The government prepared for the worst. While the armed forces were strengthened, the home front was not neglected. It was clear that the civilian population would not be safe from the effects of war. A programme of protection for the civilian population was rolled out. Municipal air raid shelters were built all over the country. Plans were made for the evacuation of children from Britain's large cities which started on 1st September 1939. The Durham coalfield was not exempt with children being evacuated from Sunderland to the adjacent countryside.¹⁰¹ The Durham coast was targeted for bombing during the Second World War because of its importance as a coal mining area and as the location of a number of ports and harbours where a variety of ship building and engineering works provided the equipment required by the armed forces. An elaborate series of defences and diversions were constructed along the coastal plain including search light batteries which lit up the skies to expose attacking planes to its guns, forcing them to fly higher thus reducing their bombing accuracy. Pillboxes were built along the coastal zone around 1941 to defend the flat coastline from invasion and anti-tank traps created obstacles to a tank invasion from the sea. Beaches were closed and barbed wire sprung out along the sands. Bombing decoys diverted attack away from the towns and villages. Following an attack on Coventry in November 1940, many major towns were provided with decoys codenamed "Special Fires", "SF" or STARFISH (SCT Annual Report 2004, 56). These sites comprised a variety of effects to represent small fires to major fires. On the Durham coast these consisted of trenches filled with tyres, which could be set alight (ASUD 1998a, 8) and were placed around Sunderland and Seaham. 1940 was a particularly bad year for air raid shelters in the Limestone Landscape area. On the 15th August major damage occurred at Easington and Seaham to built up areas. Other places affected were Cassop, Wheatley Hill, Thornley and Bowburn. Here, electric cables, water, and gas mains were damaged and roads blocked. It was estimated at the time that 300 High Explosives and 900 Incendiary Bombs were dropped on this day, killing 23 people and injuring 82 (Air Raid Damage Report 16th September 1940 – DRO). Sunderland experienced far worse, it having the reputation as being the world's largest ship building town. There is considerable evidence of these dark days still visible in the Limestone Landscapes with brick air raid shelters, war memorials, pillboxes and anti tank traps, particularly along the coast.



Plate 26. .Cold Hesledon ROTOR radar station c.1950, a grim reminder of the Cold War.(above right). WWII air-raid shelters at Easington School. (above left)

¹⁰⁰ Ripley and Pears 1939-45, unpaginated

¹⁰¹ Recollections of Winifred Haley and Marguerite Trueman (nee Robson) as published in BBCs WW2 People's War, covering Durham and Wearside, in this instance the girls were evacuated from Sunderland to Coxhoe

Defence of the coast continued after WWII with the establishment of a number of radar stations. In particular the Rotor Chain Early Warning station at Cold Hesledon. Partially built underground in a natural hill, the masts still stand as a testament to Cold War defence.

Museum and Archive collections

There are huge collections of post-medieval material held in the region's museums, archives and private collections. The vast majority is contained in social history and art collections, with a relatively small proportion belonging to archaeological collections. The sheer quantity and diversity of this material makes it nearly impossible to characterise, though there have been isolated attempts to assess individual categories of museum objects, such as material related to maritime themes or the colliery industry (Gale 1992; 1994). The outstanding collection is that at Beamish, which holds a huge social history collection dating from the 1600s to the early 20th century, including an important folk art and crafts section. In total there are over 300,000 objects here. An important early-18th-century group of imported pottery from the Lower Rhine was excavated from Dalden Tower and is now in the Bowes Museum.

Archives come in all shapes and sizes and in particular mention should be made of the Durham Mining Museum, an invaluable on-line source of information, The North East Mining Institute in Newcastle whose collection, building and staff are truly wonderful, and enthusiastic local collection such as the wonderful Wheatley Hill Heritage Centre, which not only collects and displays objects and documents but gives a purpose to an historic building.

5.8 Palaeo-Environmental assessment.

Environmental background

In addition to the physical archaeological evidence of structures, burials and artefacts, archaeology has the potential to reveal important information about past environments from the study of preserved plant and animal remains. These can be of significant value not just to archaeologists and historians, but also to those involved in the broader field of conservation and land management such as understanding the past distribution of woodland and animal species. This can therefore not be just of academic interest but can inform a wide variety of conservation initiatives.

It is fair to say that palaeo-environmental evidence from within the area could be improved upon, but there are a number of limited C14 dated pollen cores from a few excavations. Excavated sites immediately to north and south at Catcote, Thorpe Thewles and South Shields are however close enough to provide a broad picture which can hopefully be refined in future years with more work specifically within the project area. The pollen cores which have been looked at in most depth cut across the south-east edge of the Limestone Landscapes at Bishop Middleham, Mordon, Hutton Henry and Thorpe Bulmer.¹⁰² The choice of these sites for sampling reflects largely on the presence of carr lands with their long term peat and waterlogged conditions. Other potential suitable sites further north or west in the Limestone Landscapes study area are more difficult to identify.

Identification, retrieval and analysis of pollen, in particular where it is preserved in waterlogged conditions, broadly shows that the rate of tree clearance and the introduction and cultivation of cereals appears to increase through the prehistoric period, with later clearances on a larger scale. The so called 'elm decline', a phenomenon seen across north-west Europe is usually attributed to a mixture of climate change but in particular, human agency in clearing wooded areas for agriculture and the lopping of elm branches for animal fodder. At Mordon Carr, a few kilometres south-west of Sedgfield and just outside the Limestone Landscapes, the Elm Decline is dated to 50 years or so either side of 3350 BC. Very few assemblages of plant macrofossils survive from the Neolithic but those that do show hazelnuts, barley and emmer wheat all present and presumably being exploited by humans. By the Bronze Age sites such as Eston Nab to the south of the Limestone Landscapes overlooking the south bank of the River Tees have produced a range of cereals, including emmer wheat, barley and small amounts of spelt, while hazelnuts continued to be an important part of the assemblage.¹⁰³

It is in the late Iron-Age in the 1st century BC prior to the Roman invasion that pollen records indicate a substantial increase in forest clearance and the growing of arable crops. In particular the South-East of Durham has been noted as the heartland of this change, especially along the southern edge of the Magnesian Limestone escarpment.¹⁰⁴ It has been observed that known settlement sites in this area are often placed around the 125m OD contour and would have had access to both lowland and upland resources for cattle and crops.¹⁰⁵

It is clear that forest clearance moved out from this south-east core-zone throughout the period, only reaching a peak at some locations in the 5th century AD. Cores from the areas closest to the forts of north-west Durham also show clearance beginning in

¹⁰² Fenton-Thomas, 1992

¹⁰³ Vyner 1988a

¹⁰⁴ Fenton-Thomas. 1992, p54.

¹⁰⁵ Haselgrove, 1982.

the late pre-Roman Iron Age, indicating that it was not related to the presence of the Roman military. There is limited survival of insect remains, probably due to the lack of deep, well-preserved deposits, such as those in York and Carlisle. A single insect assemblage has been noted from a pit at the Roman fort at South Shields just north of the Limestone Landscapes area¹⁰⁶ where burnt deposits from a granary¹⁰⁷ have also been noted. Elsewhere during the period other sites include Catcote just outside Hartlepool which produced barley and wheat.

The pollen evidence continues to show that after the collapse in Roman administration in the early 5th century AD, cleared areas and agricultural production in the south-east of Durham and on the Magnesian Limestone continued. This is despite cooler and wetter conditions in the 6th and 7th centuries, and has been used by some to suggest that the Roman rural estate system remained in place and was gradually taken over by incoming Anglo-Saxon peoples, rather than any catastrophic decline after the Roman imperial withdrawal.¹⁰⁸

There is perhaps less evidence from pollen cores for medieval and later times, as the upper peat layers have often been removed for fuel. Most large assemblages of preserved plant and animal remains for medieval and later periods have come from excavation of urban rubbish pits left in waterlogged conditions such as the city ditch in Newcastle. Only the excavation of the medieval village of Thrislington within the rural area of the Limestone Landscapes has produced notable results of cereal crop remains, but only poorly preserved animal bone. The general picture appears to show a decline in the importance of spelt wheat, but the introduction or rise in importance of non food crops such as flax. Other trends show an increase in deep sea fishing during the medieval period and the presence of grapes, figs, sloes and plums although some of these most likely reflect imports rather than local crops.

Environmental archaeology has a significant potential to increase our understanding of past land use, trade and diet and the wider landscape both agricultural and 'natural'. This information can come from archaeological excavation, but should also be a subject of investigation in its own right to try and identify additional well preserved wetland deposits across the project area.

5.9 Enhancement: new sites identified as part of this study.

This audit also looks at gaps in our knowledge of the historic environment in Limestone Landscapes project area, and through additional research enhances this to provide good quality coverage across the study area. A brief resumé of the results of this enhancement work is provided below. Records for all of these newly recorded sites will in due course be submitted to and added into the three Historic Environment Records for Durham & Darlington, Tees and Tyne & Wear. A distribution map of these sites is shown at Figure 20.

Tyne & Wear:

115 new sites were added from analysis of historic mapping and two from aerial photographic evidence. A considerable amount has already been achieved on updating the HER from the first and second edition historic maps. The majority of the new sites added were farmsteads (40 in total) which were largely pre- mid 19th century,

¹⁰⁶ Osborne 1994.

¹⁰⁷ van der Veen 1988b.

¹⁰⁸ Clack, 1982

appearing on the first edition OS map. Although two were late 19th century and found only on the second edition map. A large number of these farmsteads appeared to be of the courtyard form in layout (16), some with gin-gangs (5). These could be the result of early 19th century agricultural expansion. The other forms of farmstead were either linear or more piecemeal in design. Many of the farms were tied in with ridge and furrow identified by the ALSF and RCZA surveys where it was present. This showed a distinct correlation between farmstead and surrounding cultivation, as might be expected, although it was impossible to date the relationship between the two and any phases of development based on information currently available. There is some evidence to suggest in a few cases that surviving farmsteads were the remains of reduced or shrunken settlement.

The majority of the other new sites added were industrial including ten associated with extraction industries (sand pits, quarries and gravel pit); a large number of these having already been added. Others included two collieries 'Lady Seaham' (13000) and Nicholson Pit (part of Rainton Colliery) and numerous associated buildings such as reservoirs, air shafts etc, although each colliery site was not broken down into specific detail. Associated with the 19th century a number of speculative workers housing developments were also added; these were largely early 19th century development, later expansion of settlements not being entered as too widespread and extensive. Nine developments were entered in total, including terraced rows at New Herrington and Newbottle and the two courtyard tenement developments at Low and High Downs; the latter two being particularly interesting examples of this form of early industrial worker's housing.

Linked to industrial expansion, the other main area of enhancement was the addition of sites associated with sanitation and the provision of water. This included a number of reservoirs, some community supplies and some associated with the provision of steam power. The largest site was Burdon Pumping Station (13088) and also the Glebe Sewage Disposal Works (13074).

The majority of other sites were transport related with a number associated with the railway, as expected, including the Pittington Bank Engine House (13004) and Letch Engine House and Rainton Station (13005) as well as a number of milestones and guide posts.

Finally, coastal defences were added, largely already identified by the RCZA survey, but not yet included on the HER.

Key sites added and noted: Lady Seaham Pit (13000), Pittington Bank Engine House (13004), Offerton Hall (13016), Crondace's House (13026), Low Downs Workers Housing (13030), Eppleton Old Hall (13034), Field House Farm (13063), Glebe Sewage Disposal Works (13074), Burdon Pumping Station (13088)

Durham

788 new sites were added from historic mapping, nine from aerial photographic evidence and data enhanced for several more. 219 farmsteads were added, of these 90 were courtyard farms, while others were linear farmsteads (most of these along roadways) or more piecemeal in development. 64 featured gin-gangs. The field pattern was as seen in Tyne and Wear i.e., in the majority of cases ridge and furrow identified by ALSF has been plotted in connection with the farmstead which forms its focal point. Distribution of farm sites across the area was fairly even. Ridge and furrow sites from the ALSF were referenced in relation to each farmstead but not entered as separate sites.

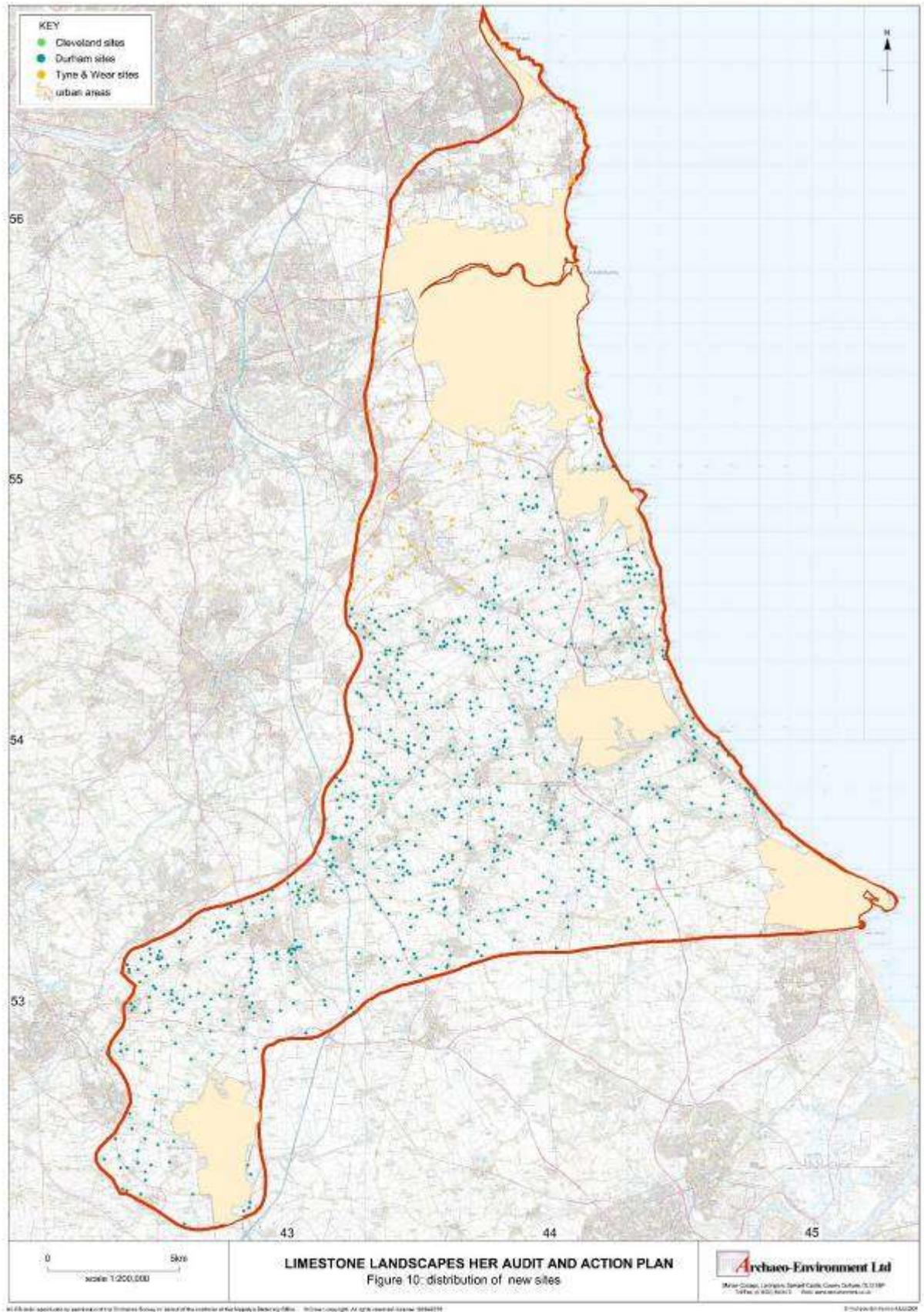
Again extraction industries were very prevalent including 185 quarries, 10 sand pits and 33 gravel pits. Quarries concentrated on a broad sweep along the western side of the study area, with a focus in the central area around villages like Trimdon, Coxhoe and Quarrington. Fewer quarries were located to the north and south of the Durham project area.

Thirty new colliery sites were added, concentrated in the central area but otherwise evenly distributed. Other main site types added were transport sites associated with moving coal from the collieries to the ports at Hartlepool, Stockton and Seaham. Not all the lines were plotted as the links etc were complicated and would require more time, but key lines, inclines, stations, engine houses etc were plotted (22 sites in total). Also associated with the collieries, 24 brick and tile works were added as well as coking and gasworks. Seventeen workers housing developments including Little Chilton Colliery Workers Housing (16509), Workers Housing Wingate Grange Colliery (16325) and New Thornley Workers Housing (16217) were also identified, but much of this has subsequently been demolished.

In total 47 World War II sites were added, mainly from the RCZA representing coastal and inland defences.

Tees:

Unsurprisingly with the smallest geographical area within the study area Tees had the fewest new sites identified at 22. These were mainly farms (12) as well as 4 quarries, 3 areas of rigg and furrow and one cropmark.



6.0 Directions and Opportunities for further research and investigation.

The North East Regional Research Framework for the Historic Environment (NERRF) published in 2006 identifies a number of areas for research and investigation to either fill in gaps in our knowledge of the region, or take advantage of areas in which the North-East has a rich heritage, the investigation of which will be beneficial to a wider understanding of our past. The aspiration is that an awareness of these research objectives by all undertaking investigation of the region's historic environment will both provide added insight to individual projects and in the fullness of time help to fill in the grey and sometimes blank areas in our understanding of the region's history. Some of these identified areas of research are particularly pertinent to the Limestone Landscapes area and to which it can make a direct contribution, others only indirectly. Following the publication of the NERRF, the ALSF project has further assessed part of the Limestone Landscapes study area and posed or addressed some additional research aims. In selection of the 25 key sites and broader thematic actions these identified research aims have been closely taken into account and are identified in the Action Plan in section 11.0.

7.0 Defining Historic Character

If the Limestone Landscapes partnership is to fulfil its objectives of conserving and enhancing the distinctive and unique character of the East Durham Magnesian Limestone then it must have a sound understanding and analysis of just what it is that makes up that character. The excellent landscape assessments at strategic level by Natural England and at County level by Durham County Council discussed in chapter 3 of this report provide much of the needed information. There is however a layer of detail specific to historic landscape character which should be addressed to ensure the importance of these factors is given profile and those subtle elements of village and countryside which provide so much character and indeed enjoyment can be given the profile and attention they deserve.

This report does not provide the space or scope for a full consideration of such issues and in particular the historic character of villages should be addressed through Conservation Character Area Appraisals or the concept of the village atlas, discussed elsewhere in this report (chapters 9 and 10 respectively).

In addition to the physical historic landscape, any region also has a cultural landscape of people and events both past and present. Such cultural landscapes are often intangible and difficult to describe but do provide a sense of place and belonging to communities intrinsically linked as they are with landscape, history, work and play. A detailed study of the cultural landscape is once more beyond the remit of this study but a selection of important people and events are noted below as this has significant implications not only for the work of the Limestone Landscapes Partnership, but for the involvement of the communities of the area who from a study of current local history groups (noted in gazetteer form in Appendix 1), place oral and mining histories together with the collection of historic photographs high on their interests in exploring their own heritage.

The following section identifies some significant components of the historic landscape of particular value to the distinctive character of the area, it does not seek to replicate that found in the excellent landscape character assessment undertaken by Durham County Council, but to highlight major historic environment themes.

7.1 The Rural Landscape



Plate 37. Copt Hill burial mound is the best preserved of many prehistoric hill top structures characteristic of the area and still after several millennia important features of the landscape.

Despite several millennia of human habitation the area is still characterised by a number of **landmark prehistoric structures** which were originally placed in prominent positions to dominate or be seen from the surrounding landscape. Amongst these are burial mounds of the Neolithic to Bronze-Ages such as Copt Hill, but also a number of

smaller barrows especially running along the higher ground of the north-south coastal ridge. This later group has suffered in particular over the last 100 years from agricultural improvement and clearance and either have or are losing their landscape prominence. Other major prehistoric landscape features such as Shackleton Beacon Iron-Age hill fort are hidden within woodland regeneration of

the last 100 years. These major prehistoric constructions are particularly distinctive rural features of the area and warrant care, conservation and enhancement works to maintain and in some cases re-establish their presence in the landscape.

The key defining historic features of the rural landscape are however much later than prehistory. While **enclosure** may have begun in the prehistoric period and continued into Roman times for both political and economic functions, it is likely that the earliest surviving boundary features such as hedgerows originated in Anglo-Saxon times. The major land re-organisation under Norman overlordship following the conquest of 1066 and then the enclosure movement of the 17th century and later, all reflect changing phases of political division, land ownership and agricultural practice. Across the Limestone Landscapes area these boundaries which were traditionally mostly formed of hedgerows and drystone walls provide a patchwork of varying dates, although in many areas there is a notable decline in traditional boundary maintenance and replacement with bland post and wire. The older boundaries mostly occur in the regular medieval tofts running back from properties fronting on to village greens, with more ancient



Plate 38. Distinctive hedgerows often on banks as seen above south-east of Hawthorn characterise much of the area. Although agricultural 'improvement' has seen many removed, unmanaged or replaced by post and wire.

irregular features marking the extent of once open common fields or isolated grange farms belonging to the ecclesiastical landowners of bishop or prior at Durham. The great movement of agricultural improvement resulted in many new farm buildings 'scientifically' designed to improve animal and crop production. Across the Limestone Landscapes this can be seen in particular in the creation of **standalone farmsteads** in the 18th and 19th centuries, many with distinctive

courtyard or 'U' shaped farm buildings, together with outlying byres and barns, all reflecting improvements in agricultural practice. While some of these farmsteads are clearly new foundations, others appear to sit within older field systems and may reflect the rebuilding of earlier grange farms or the decline of a small hamlet or village into a single farm.

Plate 39. Modest planned farm buildings of the great age of agricultural improvement often in local stone, are characteristic of the area but are increasingly being lost to 21st century farming 'improvement'



Many of these 18th/19th century planned farmsteads are surrounded by **rigg and furrow** of which the rural parts of the Limestone Landscapes possess extensive but diminishing areas. Now largely preserved under pasture cover, or on occasion by golf courses as at Castle Eden or Seaham, the rigg and furrow is the remnant of ploughing practices over the best part of a thousand years. The style and extent of these plough marks varies with some broad curving areas often overlain by later enclosures and quite clearly of medieval origin; while narrow, straight rig could be the product of late Victorian steam ploughing where an engine would pull the plough across the field. In any of these cases the characteristic appearance, often best seen under low raking sunlight, provides a strong historic landscape feature and a very visible link to a 1000 years of agricultural heritage.



Plate 40. Well preserved medieval rig & furrow cultivation at Sheraton by the A19. Once common and characteristic of the areas agrarian past it is increasingly being lost to development and modern arable intensification.

There are significant areas of **historic parkland and designed landscapes** in the Limestone Landscapes area with the earliest example being the medieval deer park at

Bishop Middleham, but the majority of sites originating in the landscape and picturesque movements of the 18th and 19th centuries most often with a large country house as a focal point. Of such landscapes Castle Eden and Windlestone are of particular note but there are several others often now within the urban fringe such as Low Barnes, Sunderland; or more minor parks such as Hawthorn Dene and Coxhoe Hall where the house has been lost and the park land now largely unmanaged, reverted to a more natural appearance. Of more recent times the planned new town of Peterlee contains areas of designed landscape such as the Passmore Pavilion.

With the exploitation of the East Durham coal field from the early 19th century, the need for efficient bulk transport to the coast at Sunderland, Hartlepool and later Seaham Harbour provided a huge impetus for **tram lines, steam hauled inclines and railways**. Many of these flourished and died in a short space of time in the face of colliery closure and competition from cheaper routes before the late 20th century saw the mass decline of coal. Many of these abandoned routes still criss-cross the Limestone Landscapes area, some only visible as turf covered banks, others scrub and tree-lined hollows, and a significant number now function as walk or cycle ways all with occasional bridges and structures in definitive styles of railway architecture.



Plate 41.(right) Abandoned railway lines and colliery tram ways characterise and link much of the area reflecting its coal mining past. Some are official footpaths while many others such as this branch of the Clarence Railway of 1834 at Crowtrees Colliery Quarrington Hill, simply add character and depth to the landscape and an opportunity for permissive access.

Plate Figure 417.(below) small quarries such as Hastings Hill are dotted across the area and provide character through exposed rock faces and grassed over spoil tips.

Exploitation of the Magnesian Limestone and other Permian rocks of the area has in itself left a visible historic imprint on the landscape in the form of **quarries**, small and large, abandoned and still working. These can be seen across the whole area as different bands of stone have been exploited for varying reasons. Originally extraction would have been solely for building material as stone and also to be burnt to provide lime mortar. However as



industrial and agricultural expansion occurred from the 18th century onwards the burnt lime would have been used to sweeten newly enclosed fields and various types of limestone used in many tasks from road building to iron and steel manufacture. The legacy of this activity has been to create many notable exposed stone scars, particularly visible on the western escarpment, but also a more subtle micro-topology of grassed over quarry holes and spoil tips visible across the area. Large modern quarries of the 20th century, some now abandoned others still in operation have created much larger landscape features and while characteristic of the area continued expansion threatens the historic character of older quarry sites such as Cold Knuckles at the eponymously named Quarrington Hill.

Following the demise of coal mining, large quarries are perhaps the sole working reminder of the area's large scale industrial past, and major sites with tall **industrial buildings** such as Thrislington Quarry with its prominent chimney should be seen not as an eyesore but as part of the area's distinctive historic landscape character. This industrial character is also still visible in a few surviving industrial buildings now in rural or semi rural environments such as the pit head baths at Elemore or still obviously reclaimed or despoiled former coal mine sites such as East Hetton Colliery. Reclamation work by local authorities over the past few decades has seen most negative traces of the coal industry removed, but where they remain, they have mellowed into the landscape often becoming reclaimed by nature where features such as old spoil tips should now be



regarded as essential components of the area's historic landscape character. Sadly more recent 'industrial' buildings such as late 20th century rapid expansion industrial estates, especially evident along the A19 corridor, contribute little of worth which is distinctive to the area and in style could be anywhere in the UK if not Western Europe.

Figure 43. Major industrial buildings such as the Grade II listed pit head baths at Elemore, often now in rural or semi-rural locations, are distinctive of the area's character.

7.2 Settlement and Buildings

Across such a large area it is not surprising that a wide range of building and settlement variations can be found. There are however a number of themes which draw the Limestone Landscapes area together and which provide it with a unique character. Unsurprisingly much of these are based on the twin themes of agriculture and geology which provide the inspiration for building function and materials. The existing pattern and form of settlements has in particular been developed in a number of waves from medieval times onwards with rapid change in the 19th and 20th centuries



Plate 44. Traditional villages of rows of houses arranged around a village green date from the years following the Norman Conquest and provide much of the historic character backbone of the area upon which the wider rural landscape is hung. Whitburn (above left) and Cornfoth (above right) are at opposite ends of the Limestone Landscapes area but in form, architecture and building materials embody and share the many of the same characteristics.

Outside the main urban centres of the area and sitting within the rural landscape of enclosure fields are two very distinctive types of settlement. The oldest of these by some way are the villages arranged either around a green or along a linear axis such as a road. The **green villages** of Co. Durham are well known as a settlement type following extensive study by Brian Roberts. Simply put, these are villages of 2 or 4 rows of house plots arranged around a central village green, their locations dictated strongly by access to water, farming land and communications. While these vary in size and some have later infillings and extensions they all originate in the years after the Norman Conquest when new landowners eager to make their estates compliant and productive reorganised their feudal lands. The Limestone Landscapes area contains many thriving villages such



as Heighington Whitburn and Shadforth which fit into this pattern, while others such as Aycliffe or Cleadon retain a semblance of their medieval origins but are beginning to be overwhelmed by urban encroachment. Others have nearly faded away completely through processes of rural desertion such as Sheraton, Grindon and Yoden, but have left distinctive earthworks to mark their passing. An important aspect of the villages is that they combine a variety of historic styles from 17th century farmhouses to polite Victorian terraces and villas. It is this melange of styles and dates which provides historic depth, character and a special sense of place.

Figure 45. Terraced houses facing onto a medieval village green at Cornfoth. The variety of historic styles is important in traditional village contexts as is retaining original features such as sash windows and correct period panelled wooden doors. The house on the right has replaced these while the one on the left has lost them.

From the early 19th century onwards the medieval settlement pattern of green villages and their field systems was overlain by a new type of settlement, the **colliery village**, whose location was influenced not by agriculture but by minerals. The development of deep mining techniques finally allowed access to the East Durham coal field from 1822 when the shaft at the East Hetton Colliery was opened having pierced the overlying Magnesian Limestone to get at the Coal Measures rock beneath. The exploitation of deep mining techniques and the improved steam pumping engines required to drain



Figure 46. Brick colliery housing (Hetton), typical of many streets laid out in the 19th century with locally made brick and welsh grey slate roofs. Modern owners desire for individuality expressed in uPVC windows, new doors, porches, fences and on occasion 'stone' cladding are all at odds with the true character of such developments and detract and erode their historic character.

them, rapidly allowed landowners and companies to sink shafts across the Limestone Landscapes area. To accommodate the influx of new workers to work in these pits, who often came from well beyond the region such as Cornwall and Ireland, new housing was required and colliery villages were built. While on occasion these were extensions of existing villages such as West Cornforth, in many cases they were completely new settlements as at Wheatley Hill, where previously only a solitary farm had stood. The form of these new villages was also radically different to the medieval green villages. Instead of greens they had rows of regularly spaced terraced houses of single and two storey height, often in brick made from the fireclay extracted from the mine itself. The establishment of mine workers' rights and welfare also saw the construction of many groups of **aged miner's housing, schools and institutes**. These are especially important to the character of many of the villages across the area.



Figure 47. The area's distinctive mining character is seen not only in industrial buildings but in the social fabric of aged miners homes (Fishburn left), institutes etc.

Collieries opened and often failed with some regularity during the 19th century and by the latter half of the 20th century the economics of coal mining had resulted in fewer larger collieries. The standard of the housing in many of the mining villages was called into question and the County Council categorised the worst-least viable settlements as 'Category D' resulting in widespread demolitions and the re-housing of families in post war purpose built **local authority housing**, often added as small estates onto the fringes of older villages resulting in a third wave of settlement in the area. The peak of this rebuilding and re-housing with its emphasis on modernity, raising of standards and attempts to find employment other than heavy industry was to be seen in the **new towns** built at Newton Aycliffe, Washington and perhaps above all at Peterlee where modern design, public art and landscaping were attempted to be brought together.

Close to villages old and new the immediate surroundings have a number of buildings which once more provide significant distinctive character. Few relics of watermills survive but the area still contains many **tower windmills** built in the 50 years or so either side of 1800. Usually built from local stone, often rendered or lime washed these initially milled local cereal crops for the expanding towns of the 19th century, but as large scale milling and imports drove them to the economic margins they found a more local market producing animal foods before most went out of business by the First World War. Since then several have been lost, a few converted to homes and several more either consolidated as ruins or restored to working

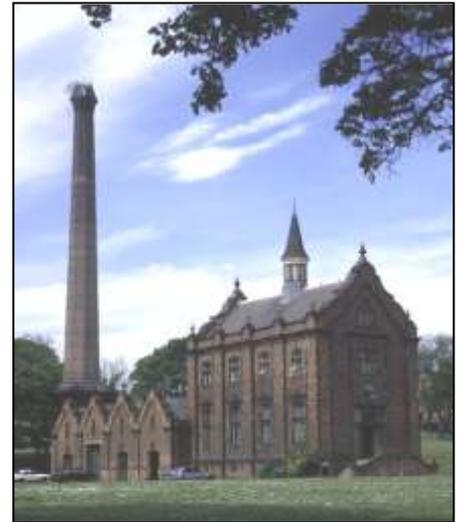


Plate 48. Hart Wind Mill and its modern successor. Tower windmills and the use of wind power are a strong characteristic of the area

order. Today they form an important element of the historic landscape both in rural settings and areas which have since become urbanised. They provide a link to an agricultural past and an inspiration to a sustainable future often juxtaposed with modern wind farms several of which have been built in the east of the Limestone Landscapes area in the past decade and which, in modest numbers and well sited, can be in keeping with the historic character of the area reflecting a heritage of wind power and industrial buildings.

A further range of dramatic buildings also characterises the east of the Limestone Landscape area, where a series of **water pumping stations** built in high gothic or Italianate–gothic style were constructed in the mid 19th century. Designed by the nationally important engineer and architect Thomas Hawksley for the Sunderland and South Shields Water Company. Buildings at Cleadon, Stoneygate, Fulwell, Ryhope, Humbledon and Daldon are significant landscape and engineering features of the Limestone Landscapes area and all survive largely intact although not all still in the ownership of Northumbrian Water. Ryhope is beautifully preserved and publically accessible, while Dalton stands empty and potentially at risk.

Figure 49. Ryhope Water pumping Station of 1868 by Thomas Hawkley for the Sunderland and South Shields Water Company. One of several such dramatic neo-gothic styled Victorian buildings which are distinctive elements of the eastern side of the Limestone Landscapes area.



As much as landscape, settlement form and building architectural style, it is the **building materials** of an area which provide much of the distinctive local character. Use of largely vernacular, local materials reflects geology and sense of place. The fine grain of this needs assessing on a settlement by settlement basis but a few key themes can be identified. In particular walls of Magnesian limestone whether in buildings or as boundaries are distinctive across the area in part for their mellow colour and texture, but also due to their propensity for erosion requiring patching, often with brick. Modern use of hard cement pointing rather than lime mortars has increased this problem. The softness of the local stone has also led to the extensive use of render and historically lime-wash to protect the soft stone. Little remains of what might be considered local roofing materials such as thatch. Pantiles were popular from the late 17th to early 19th centuries and were then replaced by the widespread use of grey Welsh slate over most of the range from the mid 19th century onwards. The use of wooden sash windows and panelled wooden doors of various styles and dates is especially important to the character and appearance of all buildings and their loss to uPVC replacement is especially regrettable on rows of terraces where owner's desires for individuality are at odds with the special quality of a well maintained, uniform appearance of a traditional terrace. The large numbers of brick terraces are a particular legacy of the area and the hard dull red brick often made of local fireclays is particularly distinctive.



Plate 50. Easington Village (left & below right) and Cornforth (above right) are typical of the traditional villages of the Limestone Landscapes. Arranged around a green rows of housing in rendered or lime-washed local stone interspersed with brick buildings of 19th century or later date. Particularly distinctive are boundary walls of crumbling Magnesian limestone, patched with brick.



The **smaller ephemera** of the built environment should also not be overlooked for their valuable contribution such as enamelled or cast road signs in village and country together with cast iron finger posts and traditional lamp posts, milestones and boundary markers should all be valued, maintained and retained.

Plate 51. Cast iron finger post between Westerton and Kirk Merrington. Small simple features such as this dating from the inter-war period provide valuable historic character to an area and are easily lost or poorly maintained.

Although the area is bisected by two large roads (A1 and A19), and several 'improved' roads such as the recent Bowburn-Wheatley Hill link, the overwhelming character is still of **small country lanes**. In particular the south-west of the area between Heighington and Ferryhill, and the central zone from Coxhoe north-east to Hetton exemplifies this with narrow twisting, sunken lanes often between high hedge banks.

Although not possessing any land of significant height, the area does have a number of notable escarpments which provide far reaching views and in relation to historic character, the setting of a number of **prominent hill top historic built structures**. As mentioned at the start of this section, many of these are of prehistoric date, but there are a number of others of note including several wind mills, Kirk Merrington Church, Westerton Tower and perhaps most symbolic of all Penshaw Monument.



Plate 52. Dramatic skyline or hill top structures characterise the Limestone Landscapes area. (left to right), Cleadon Chimney & wind mill, Penshaw Monument, Kirk Merrington Church.

7.3 Cultural Heritage

While much of the physical side of the historic environment consists of its monuments, buildings and landscape; a crucial factor to local diversity and character is the cultural heritage. This is a difficult topic to pin down and may well vary in the minds of residents over surprisingly short distances let alone in such a wide area as the Limestone Landscapes. Two factors which much of the area has in common are belonging to the historic County of Durham, and to a culture heavily reliant on coal mining. Even these deep rooted identities are changing with county boundaries altered in 1974 and the last deep mines closed approaching 20 years ago. Work by the University of Leicester¹⁰⁹ has shown that questions of identity and home in East Durham are still inextricably linked with coalfield and other nostalgic factors but as generations come and go the strength of these feelings and their immediacy will undoubtedly change.

The following short section attempts to briefly identify areas and some examples of cultural heritage relevant to the area and to raise the general profile of the subject for the benefit of the Limestone Landscapes Partnership's future work.

Mining Heritage is a defining characteristic of much of the area's cultural heritage from the last 200 years or so. Aside from the physical manifestations in the built environment there is still a strong connection with celebrating this heritage through the collection of Pit Banners, old photographs and the care of monuments and memorials. Other aspects of life closely associated with mining from sea coaling to working men's clubs, aged miner's housing, Co-Ops, non-conformist chapels, allotment gardening and institutes all form a closely related group of iconic cultural activities which make the area distinctive.

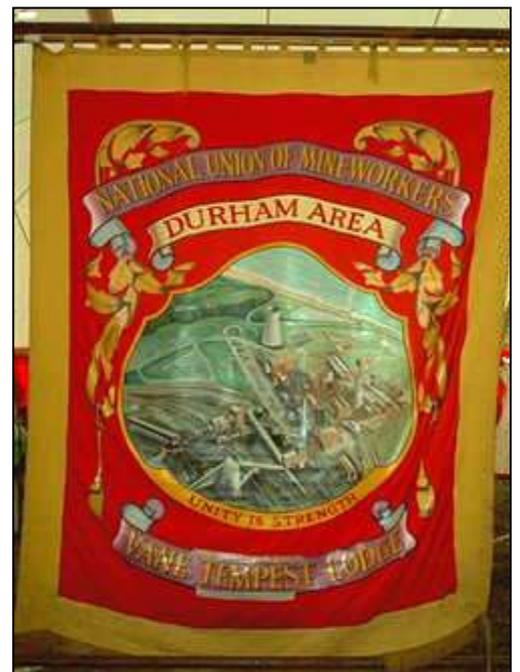


Plate 53. Collections of historic photos and the care and display of mining banners are important areas of interest and pride in the areas coal mining heritage. Seaham Harbour (above), Vane Tempest (right)

¹⁰⁹ Bennet, K. 2009.



Plate 518. Sea Coaling on the Durham Coast c.1885-90, a traditional activity going back many hundreds of years. (Pattinson Collection from the Durham Record DR12120)



Plate 55. Allotment gardens under the Magnesian Limestone escarpment at Sherburn. A traditional past time which positively contributes to landscape character.

The area has a rich **folklore** often of a grisly nature such as the Brass Farm (Hill House or Cutty Throat Farm) Murders near Kirk Merrington of 1683 which still appears in many popular publications, on websites and to which there is a monument in Kirk Merrington churchyard. There are several well known ghosts such as the Cauld Lad of Hylton Castle, said to be the spirit of Roger Skelton decapitated by Sir Robert Hylton the 13th Baron, after falling asleep and failing to get his master's horse ready on time. Older stories such as the famous Lambton Worm-dragon story and its association with Penshaw Hill still also hold the popular imagination.

The **Popular Culture** of the area is vibrant in many ways from contemporary music such as Maximo Park, to boasting the North-East's solitary Premier League football club in Sunderland. It is however in cinematic and visual arts that the landscape character is perhaps best reflected. Films such as *Billy Elliot* (2000) filmed in Easington Colliery



*Plate 56. Films such as *Get Carter* (1971) with Michael Caine have used the East Durham landscape effectively as seen at Blackhall Rocks (above right), but the same site now cleaned up (above left) reflects the on-going changes in the landscape and culture of the area. More recent films such as *Billy Elliot* (2000), also re-create a mining past and reflect a nostalgic pride in the areas mining history if not the reality of the area today.*



against a background of the Miners' Strike, and Get Carter (1971) which not only used Blackhall Rocks for its final scenes but reputedly was based on the murder of Angus Sibbet at South Hetton in 1966, both providing a strong visual and cultural link to the area. As the years pass, they also provide a nostalgic link to the changing landscape, such as Blackhall Rocks and the now cleaned up coast resulting from the successful 'Turning the Tide' project of the 1990's.

Although coal and other extractive industries such as quarrying have perhaps been the major socio-economic forces over the last 150-200 years, it should not be forgotten that the area has strong roots in **agriculture and maritime** activities. Although farming no longer employs a significant number of people as it might have done from prehistoric times until the 20th century, farming communities are still at the heart of the rural landscape. In terms of its management, appearance and care and they make a disproportionately large impact on its appearance for the number of people involved. Although much of the area is away from the maritime area, the coast at its north and south extremes has ancient and vibrant maritime communities at Hartlepool and Sunderland as well as at the planned 19th century creation of Seaham Harbour. Ship building, colliers, fishing, holiday makers and the traces of military coastal defence all add distinctive elements to the historic character of the area where the maritime environment can be observed from the inundated submerged prehistoric forest at Hartlepool, through traces of Roman shipping at South Shields to the resort style facilities north of Roker and defensive gun batteries at Trow Point.

Historically a number of pre-eminent **notable families** have been closely linked with the area and had a significant impact on its cultural development. Amongst these have been the Millbankes, Pembertons, Bowes, Londonderrys, de Brus, Edens, and Lambtons. Each has origins in medieval land owning aristocracy but went on to be the major drivers of industrial development such as the Pemberton's salt panning interests on the River Wear, and the building of Seaham Harbour by the Londonderrys to allow coal exportation.

As well as families there are of course many **notable individuals** inextricably linked with cultural history across the Limestone Landscapes amongst these a short list might include the following.

Bede (c. 672-735), known as the Venerable Bede, was an English monk, scholar, and theologian. His works were the crowning cultural achievement in England in the 8th century. Bede was born near Jarrow. When he was seven, relatives brought him to the Benedictine abbey at nearby Wearmouth; he passed the remainder of his life at Wearmouth and later at the monastery at Jarrow. The period during which Bede lived was viewed as a 'golden age' of English, principally Northumbrian, monasticism. Bede's works are many and various. He wrote two scientific treatises on chronology and the formation of the Church calendar, *De temporibus* (703) and *De temporum ratione* (725), to each of which was appended a chronicle of the ages of the world as established by God. Bede also wrote a number of saints' lives, full of edifying miracles, including two versions of the life of St. Cuthbert (ca. 704 and 721). All of Bede's interests intersected brilliantly in the *Historia ecclesiastica gentis anglorum* (Ecclesiastical History of the English People), which he finished in 731. It is, in effect, a saint's life with the English

nation as hero, and it illustrates the early medieval theological proposition that the workings of Divine Providence are visible in history. Bede's theme is the conversion of the Anglo-Saxons, after their settlement in Britain, by missionaries from Rome and Ireland. Bede includes many documents giving important information about the early English Church and the monastic estates of Wearmouth-Jarrow in the Magnesian Limestone area. Bede died at Jarrow in 735. He soon became a legend, revered for his holiness and learning. His greatest work, the Ecclesiastical History, was a constant model for historians throughout the Middle Ages.

Benedict Biscop. (AD 628-689) A major figure in Northumbrian Christian church during its golden age in the 7th and 8th centuries. Biscop Baducing was born in Northumbria in AD 628, of a noble English family. When quite a young man, he stood high in the Royal favour and was rewarded for his services to King Oswiu by the gift of a possession in land suitable to his rank. This he declined and instead embarked on a religious life, visiting Rome on pilgrimage several times and becoming Abbot of St. Augustine's, Canterbury, Abbot of Wearmouth-Jarrow which he founded and where he died (at Wearmouth) in AD 689. Monkwearmouth-Jarrow was of especial importance as Biscop imported craftsmen from France to build in stone in the Romanesque style and glass works to provide windows, both previously unheard of in England. He was also a great collector of religious artefacts including books and Saints relics with which the monasteries were lavishly endowed.

Dr. William Reid Clanny (1776–1850), of Sunderland, the first person to demonstrate that a steady light could be employed in coal mines without the danger of external explosion. On May 20th, 1813 he announced his discovery at a meeting at the Royal Society of Arts in London, when he presented the Society with the first miner's 'Safety Lamp'. A modification of this lamp was used in Herrington Mill Pit, in 1815, making it the first colliery in which a safety lamp was used

Hild or St. Hilda (AD 614-AD 680) was the grandniece of King Edwin of Northumbria. She was baptised in 627 when the king and his household became Christians. In 647 she decided to become a nun, and under the direction of Aidan she first became Abbess of the monastery at *Heruteu* (Hartlepool) before establishing several other monasteries including Whitby a double house: a community of men and another of women, with the chapel in between, and Hilda as the governor of both; and it was a great centre of English learning, one which produced five bishops.

Elizabeth Barrett-Browning. (March 6, 1806 – June 29, 1861) was born at Coxhoe Hall, in County Durham and baptized in 1809 at Kelloe Parish Church, though she had already been baptized by a family friend in the first week after she was born. She was one of the most prominent poets of the Victorian era. She was the wife of poet Robert Browning, to whom she was married in secret due to objections by her father. Elizabeth's works were equally, if not more popular, with Victorian audiences than those of her husband, and her poetry was widely popular in both England and the United States during her lifetime. Suffering from poor health after age 20, Browning composed her poems primarily in her home. Her collection of sonnets titled *Sonnets from the Portuguese* contains many anthologized poems including her most famous, XLIII, in which she enumerates her affection for her husband: "How do I love thee? Let me count

the ways." Her works contained early examples of feminist thought and have been reprinted in several volumes. The Barrett family, who were part Creole, had lived for centuries in Jamaica, where they owned sugar plantations and relied on slave labour. Elizabeth's father chose to raise his family in England while his fortune grew in Jamaica.

Sir George Elliot, 1st Baronet, JP (18 March 1814 – 23 December 1893) was a self-made businessman from Gateshead in the North-East of England. A colliery labourer who went on to own several coal mines, he later bought a wire rope manufacturing company which manufactured the first Transatlantic telegraph cable. He was also a Conservative Party Member of Parliament (MP). Elliot was the eldest son of Ralph Elliot, a coal miner. He started work at the age of 9 as a trapper boy at Whitefield Pit, Peshaw, and eventually owned this colliery later in his life. In 1849 he became a wire rope manufacturer and his company, Glass & Elliot, manufactured the first Atlantic cable. Sir George became an MP on 26 November 1868 and he was created a Baronet on 15 May 1874. In his capacity as an MP made arrangements for the new tongue of Big Ben, in Westminster, London, to be forged at Hopper's Iron Foundry in Houghton-le-Spring. His local residence was Houghton Hall at Houghton-le-Spring; his London residence was in Portland Place. He is buried in a family vault at Hillside Cemetery Houghton-le-Spring.

Lord Byron, Anne Isabella Milbanke, Ada Byron. In the late 18th century the Milbanke family's principal residence was Seaham Hall, and it was here that the marriage took place of Anne Isabella Milbanke to the poet Lord Byron. Although a distinctly unhappy and short marriage it does provide an interesting episode in the history of the area and links to not only Byron and internationally renowned poet, Anne Isabella Milbanke herself a brilliant student of mathematics amongst several disciplines but also a noted prison and anti slavery reformer. Their daughter Ada, shared parts of both her parents personalities being a brilliant mathematician and credited with inventing the concept of computer programming but also something of party girl running up significant gambling debts before an early death.

Charles Dickens resided in Cleadon at 'Cleadon House' on Front Street where he reputedly gained inspiration for the character of Miss Havisham in his novel *Great Expectations*. The description of her house matches Cleadon House and local anecdote alleges that a man who lived in the house was stood-up at the altar and immediately ordered the clocks and reception at Cleadon House to be kept exactly the same as that at the moment he was to be married for a year and so providing the inspiration for Miss Havisham.

Peter Lee (1864–1935) born one of eight in July 1864 at Duff Heap Row, Fivehouses in Trimdon Grange, Durham. An important miner's leader and became the chairman of England's first all Labour council at Durham in 1909. Peterlee new town was created in 1948 on the site of a deserted medieval village called Yoden and named after Mr Peter Lee.

Anthony Eden (1897-1977) Anthony Eden, was born at the family seat Windlestone Hall, Durham. Following a distinguished military career he was to become one of Britain's most prominent politicians in the 20th century. Eden served on the Western Front and won the Military Cross at the Battle of the Somme in 1916. By the time the war ended, Eden had reached the rank of major. After the war he eventually selected a

career in politics and in the 1923 General Election won Warwick & Leamington for the Conservative Party. Three years later he was appointed parliamentary private secretary to Austin Chamberlain at the Foreign Office - a post he held until the government lost power in the 1929 General Election. In the National Government formed by Ramsay MacDonald in 1931, Eden became Under-Secretary for Foreign Affairs (1931-34). When Stanley Baldwin became prime minister in 1935 he appointed Eden as his Foreign Secretary. Eden disagreed with Neville Chamberlain about the way to deal with fascism in Europe and in 1938 he resigned from office. When Winston Churchill took over from Chamberlain in 1940, Eden was reappointed as Foreign Secretary. After the Labour Party victory in the 1945 General Election, Eden became deputy leader of the opposition. The 1951 General Election saw the return of a Conservative government and once more Eden became Foreign Secretary. Eden replaced Winston Churchill as prime minister in April 1955. Eden's main political crisis as PM concerned the threat to British interests in the Suez Canal caused by fear that President Nasser of Egypt was to nationalise the canal, move closer to the Soviet Union and intended to form an Arab Alliance that would cut off oil supplies to Europe. Secret negotiations took place between Britain, France and Israel and it was agreed to make a joint attack on Egypt. On 29th October 1956, the Israeli Army invaded Egypt. Two days later the British and French bombed Egyptian airfields. British and French troops landed at Port Said at the northern end of the Suez Canal on 5th November. With no American backing and pressure from the United Nations, the British Army was withdrawn and Eden resigned on 9th January, 1957. Created Earl of Avon in 1961, Eden spent his later years writing his Memoirs (3 volumes, 1960-65) and *Another World* (1976), an account of his war experiences.

Robert Surtees (1779 -1834) was a celebrated historian and antiquary of his native County Durham. Surtees was born in Durham of an old and important county family. He was educated at Kepier School, Houghton-le-Spring, and later at Christ Church, Oxford. Although a student of law he never practised as a lawyer. From 1802 he spent most of his life at Mainsforth Hall. By 1804 Surtees had begun collecting material for what was to become his monumental work *The History of Durham*. He was a studious and sensitive man who did not always have good health. He married Anne Robinson, of Herrington, in 1807: they were hospitable at Mainsforth, and guests included Sir Walter Scott, with whom Surtees frequently corresponded. Christian faith was central in Surtees's life: he regularly worshipped at Bishop Middleham parish church. By 1816 the first volume of *The History and Antiquities of the County Palatine of Durham* was published. Two further volumes followed and a final volume was published posthumously in 1840. Never in good health, Surtees complained of a cold in January 1834, complications developed and he died on 13 February 1834, with his wife at his bedside. He was buried in Bishop Middleham churchyard, and a monument to him was later erected in Bishop Middleham Church. The Surtees Society was founded following his death to continue his work and still prospers today.

Bill Griffiths (1948-2007) Although not a native of the region, Bill Griffiths was a long time resident of Seaham Harbour and a great mover and supporter of local interest in history and archaeology. A published poet of international standing, he also gained a PhD in Old English from Kings College London and following his move to Seaham began researching the collier's language of Pitmatic on which he was published.

Thomas Wright (1711–1786) astronomer, mathematician, instrument maker, architect and garden designer. He was the first to describe the shape of the Milky Way and speculate that faint nebulae were distant galaxies. Wright was born at Byers Green in County Durham. In 1730 he set up a school in Sunderland, where he taught mathematics and navigation. He later moved to London to work on a number of projects for his wealthy patrons. This was before retiring to County Durham and building a small observatory at Westerton on the highest point of the Magnesian Limestone.

L.S. Lowry. (1887-1976). Painter. Although most associated with Salford and Lancashire In his later years, Lowry would often spend holidays at the Seaburn Hotel in Sunderland, painting scenes of the beach, as well as nearby ports and coal mines. A number of his paintings of the area now hang in the Sunderland Museum.

8.0 25 Key Sites.

A key part of the brief for this project was the identification of 25 key sites which 'encapsulate' the essential features of the historic environment of the East Durham Magnesian Limestone Character area. This was with the intention that these can act as focal points for best practice in conservation, research and engaging the communities of the area with their heritage. The criteria for assessment and identification of the 25 sites are described in section 2.4.6. but in particular it is worth noting that any sites contribution towards historic landscape character and the existence of groups or individuals already showing an interest in their own heritage were considered particularly significant.

The original intention had been to identify a first choice 25 and a shadow list of 25 sites so as to ensure that each first choice site had an alternative should access or opportunity not be forthcoming. As the report was written it became clearer that in many cases it was unnecessary to identify an alternative as the 'sites' selected had considerable scope or were not single specific features but wider areas of landscape. Paragraph 8.1 below provides a short listing of the 25 sites and where an alternative 'shadow' site was felt worth identifying this is noted also. More detail on each site is contained in the tables which follow.

In addition to the 25 key sites each selected as they exemplified either the most significant examples of their type within the study area or are in no small part responsible for its character, a number of non site specific projects were also identified which are considered necessary to further inform or protect the historic landscape character of the Limestone Landscapes area. These are identified at Section 11.0 within the Action Plan. Of these broader projects one in particular is worth mentioning here that of the 'Village Atlas'. To encourage the development of this concept one of the 25 projects at Hart is specifically to produce a village atlas. The production of such documents in partnership with the community will allow the possibility of the many worthwhile examples of historic environment not recognised in the 25 Key sites to gain visibility and action in due course

8.1 The 25 sites sit within a number of broad identified categories which are in particular characteristic of the Magnesian Limestone area.

Prehistoric landmarks, landscapes, and hidden heritage

Hastings Hill (Key Site 1)

Copt Hill/Warden Law (Key Site 3)

Prehistoric barrows, caves and palaeo-deposits (Key site2)

Redworth; Shackleton Beacon Iron-Age Hillfort. (Key Site 4)

Great Chilton Cropmark (included within Key Site 5)

Anglo-Saxon settlement and burial;

Recent metal detector finds near Hart (included in Key Sites 5,

Settlement Remains (included in Key Site 5)

PAS potentially identified Anglian burials near Ferryhill (included in Key Site 5)

Early Christian:

Monk Hesledon Church (Key Site13)

Seaham cemetery and church (Key Site 6)

Interpretation of A-S stonework (to be raised under KS 6, 11, 12,13)

Werhale Jarrow-Monkwearmoth Estates. (Key Site ?)

Medieval Estates:

Private land owners (de Brus etc.). (included in 12 (Hart), 10,11)

Ecclesiastical Estates (Prior and /Bishop of Durham
Bishop Middleham, Monk Hesledon) (Key Sites 7,12,13)
Dalden Tower (Key site 11)
Ludworth Tower (Key Site 10)
Deserted med villages. Garmondsway, Coxhoe East House (Key Sites 9, 10 also
5,6,8)

Post Medieval Country Houses and Designed Landscapes enlightenment and the picturesque:

Castle Eden Dene. (Key Site 16)
Hawthorn Dene/Hawthorn Tower (Key Site 15)
Windlestone Hall and Park (Key Site 17)
Westerton Tower (Key Site 14)

Post Medieval farming, agricultural improvement farms, 'rural industry'.

Farmsteads of the 19th century

Rig and Furrow

Windmills; (within Key Site 12, 18)

(Easington, High Hill House Mill (Ferryhill), Fulwell, Hart, Cleadon Hill, Whitburn,
West Bolden etc).

19th century Water pumping stations; (within Key Site 19)

(Cleadon, Ryhope, Fulwell, Stoneygate, Humbledon, Daldon,)

Coal Mining:

19th century exploitation of the East Durham Coalfield

Haswell Plough engine House, deep mining, colliery village, category 'D'. (Key Site
21)

Quarrington Hill- Crow Trees Colliery. (Key Site 20)

20th century coal mining

Elemore Pit Head Baths.)

Aged Miners Housing.)

Social Buildings relating to mining communities. (Key Sites 20, 21)

Category 'D' Villages. (Key Site 20, 21)

Quarrying and lime burning:

Ferryhill; Chilton Lane limekilns. (Key Site 5)

Marsden limekiln, Carley Hill Quarry. (Key Site 22)

Hawthorn Dene. (Key Site 15)

Fulwell, Sir Hedworth Williamson Lime Kilns. (Key Site 18)

Coastal, Maritime and Coastal Defence

Frenchmans Bay & Trow Rocks, battery & replica disappearing gun (Key Site 25)

Radar Stations, Marsden (WWII) and Daldon (ROTOR Cold War).

Fulwell WWI, Sound Mirror. (included in Key Site 18)

Ship building, fishing, sea-coaling

Key Site 1; Hasting Hill, Tyne and Wear.	
Local Authority	Sunderland City Council
Grid Ref	NZ 356 540
HER Ref	T&W HER: 109 110 111 112 113 325 451 452 467 480 3116 5882
Land Ownership	Private (TBC) Hasting Hill Farm.
Legal Status	Scheduled Ancient Monument
Description	Extensive prehistoric site including burial and ritual features of the Neolithic-Bronze-Age. The barrow on top of the hill is a prominent landscape feature for several miles around and clearly visible from the A19 with exposure of Magnesian Limestone in old quarry. The field to the south has spectacular cropmarks/buried remains under threat from continued arable farming. Finds from the 1911 excavation are in Sunderland Museum.



View south from Hasting Hill to the scheduled area currently under arable cultivation.



Terracing and degraded hedgerows to west.



From the SW, hill top showing exposed quarry face.



Old quarry on SW side next to PROW.

Limestone Landscapes Historic Environment Audit and Action Plan

Proposals	
Access (Current)	Public footpath at base of the hill and across the arable field to the south containing the exceptional cropmarks of buried features. There is no formal path to the hill top
Access (potential)	Safe parking on narrow lane (Foxcover Road) to the west and permissive loop to existing PROW to allow access to the hill top
Interpretation (current)	Non on site, some material on display in Sunderland Museum.
Interpretation (proposed)	<ul style="list-style-type: none"> • Interpretation panel at access from Foxcover Lane and possibly from Grindon Hill. Signposting to hill top. • Inclusion in any planned website/download facility for LL interpretation. • Inclusion on popular publication on LL Heritage. • Interpretation at Sunderland Museum refreshed with site access noted.
Condition Assessment	Barrow excavated in 1911, probably a cairn and not restored afterwards. OS Trig point now stands on small mound with some erosion around base. Informal access is causing some erosion up steep hill side.
Proposed conservation (Archaeology)	<ul style="list-style-type: none"> • Geophysical survey followed by targeted evaluation excavation to confirm condition of the archaeological remains. • Pending results of evaluation, land taken out of arable and returned to grassland with accompanying hedgerow/boundary restoration. • Stabilise erosion around OS Trig point (itself now redundant and of historic interest), formalise access to hill top and limit erosion to hill side by signposted route.
Proposed Conservation (Historic Landscape)	Hedgerows and terracing to the (north) west of the site from Foxcover Road are of historic and landscape importance.
NERRF Research Themes & objectives	NB2, N6, NBi, NBii, NBiii, NBv, NBvii.
Community involvement opportunities	Field walking, participation in evaluation excavation of cropmark features. Hedgerow restoration and development of interpretation,
Identified partners and stakeholders	
Geology Synergies	Notable high point of exposed geology with disused local quarry on the west side, provides an opportunity for geological interpretation.
Bio-Diversity Synergies	Hedgerow restoration, small abandoned quarry, reverting arable field to grass cover

Key Site 2; Prehistoric barrows, caves and palaeo-deposits	
Local Authority	South Tyneside/Sunderland City Council/Durham County Council/Hartlepool Borough Council
Grid Ref	Various
HER Ref	Various
Land Ownership	Various
Legal Status	Scheduled/ Non Scheduled
Description	As might be expected much of the areas prehistoric archaeology is either partially destroyed above ground by development and modern agriculture, or as has been suggested by several authors potentially deeply hidden in concealed and difficult to access locations such as beneath glacial till in the deep sided denes of the coast or within the many caves dotted across the Magnesian limestone. This project seeks to build on the work of others both between Tees and Tyne, and further south on the Yorkshire coast to enhance our knowledge of the prehistoric period by identifying and investigating sites of high potential for understanding the areas prehistory; and rescuing surviving information from burial sites in particular already damaged through recent and on-going human activity such as ploughing. Three specific areas are to be targeted. (1) Revisit Young's inventory of prehistoric Barrows in Co. Durham (1980) of which the East Durham Magnesian Limestone has both the largest concentration of such sites in the county, and also the largest group specifically placed on hill tops and crests intended to be seen from all directions. In addition to. (2) Identify and assess the potential for cave archaeology as witnessed in several antiquarian records such as the burials from Bishop Middleham quarry. (3) To identify and assess the postulated survival of palaeolithic deposits pre-dating the last ice-age most likely within the deep sided denes of the coastal fringe. Although comparable sites such as those in the Magnesian Limestone of Creswell Crags in Derbyshire are unlikely to be discovered this can be taken as an inspiration..



Two cave sites in Hawthorn Dene. The deep sided denes of the coast and many caves of the Magnesian Limestone have the potential for significantly increasing our knowledge of the earliest prehistoric times.



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Proposals	
Access (Current)	Poor, some visibility of partially destroyed barrows to the trained eye. Little knowledge of cave or sealed a palaeolithic deposits.
Access (potential)	Intended principally as an academic/community survey and awareness raising project to ultimately contribute to future interpretation of the area. Direct physical access may result but is not of principle importance.
Interpretation (current)	Non
Interpretation (proposed)	Some enhanced visibility and interpretation for hill top barrows, but projects principal aim is to greatly enhance our understanding of the Palaeolithic and later environment and human occupation of the area.
Condition Assessment	Most sites either very poor through ploughing or destroyed
Proposed conservation (Archaeology)	Location, survey and evaluation of all 'hill top' or ridge barrows along the coastal strip with condition assessment to update Young's survey of 1980. Identification and assessment of cave sites Identification and assessment of pre-ice-age Palaeolithic deposits
Proposed Conservation (Historic Landscape)	Conservation, interpretation and enhancement to restore these significant landscape features. For badly damaged, lost or destroyed features this could be treated in part as a public art project similar in scope to the work of Andy Goldsworthy in Cumbria on restoring stone sheep folds as historic landscape features.
NERRF Research objectives	Miii Mvi NBi, NBiii, NBiv liv lix.
Community involvement opportunities	Landowners, Local Communities & Schools, AASDN.
Identified partners and stakeholders	Univeristies?
Geology Synergies	Considerable in identification and understanding of Palaeolithic deposits and cave systems
Bio-Diversity Synergies	-

Key Site 3; Copt Hill/Warden Law, Tyne and Wear.	
Local Authority	Sunderland City Council.
Grid Ref	NZ 35344922 (Copt Hill); NZ 376502 (Warden Law)
HER Ref	T&W HER 100 114 439 424 426 437 (Copt Hill); 254 255 256 257 442 447 485 (Warden Law)
Land Ownership	Sunderland City Council (Copt Hill); Private (Warden Law)
Legal Status	Scheduled Ancient Monument (Copt Hill)
Description	Extensive prehistoric site including burial and ritual features of the Neolithic-Bronze-Age. The barrow on top of Copt Hill is a prominent landscape feature for several miles around, while the semi-natural mounds at Warden Law are also significant landscape features. The Copt Hill and Warden Law barrows provide the best visible early prehistoric features on the Magnesian Limestone and are set on high ground to be seen from a number of directions. They provide key visible historic features along the road from Houghton-le-Spring to Seaton. Buried archaeological remains associated with the two sites are of at least regional importance and potential for our understanding of the Neolithic-Early Bronze Age. Both barrows were first excavated some while ago (1877/1911) by Greenwell and Trechman respectively, seminal figures in the history of archaeology in the area. Copt Hill has also been the scene of recent re-investigation and has an active Friends group. Warden Law warrants further research and access to clarify the extent of the site and a number of features noted in aerial photographs and site notes which may well be under threat from plough damage.



Copt Hill; The Neolithic and later Barrow, crowned by the Seven Sisters trees. Warden Law (west), one of two semi-natural mounds used for Neolithic Burial.



Warden Law; looking NE (above left) with Salters Lane to the left and possible barrow features in foreground and on skyline; and Warden Law AP (above right) from Google Earth ((c) 2001), showing the two prominent 'barrow' features and a variety of undefined sub-surface features to the south.

Proposals	
Access (Current)	Open access to Copt Hill, Warden Law visible from public road (marked on OS as Hetton-Warden Law Trail and advertised as a cycle trail by Sunderland City Council)
Access (potential)	Open access at Copt Hill; non at Warden Law but visible from roads
Interpretation (current)	<div style="display: flex; align-items: center;">  <div> <p>Non at Warden Law (finds in Sunderland Museum); interpretation board, seats, way markers at Copt Hill.</p> </div> </div>
Interpretation (proposed)	Low key interpretation at both sites placing sites in wider landscape context; additional material available to tie in with Sunderland City Council Hetton-Warden Law Cycle Route which passes both sites. Tie in with information on C.T. Trechman and display in Sunderland Museum

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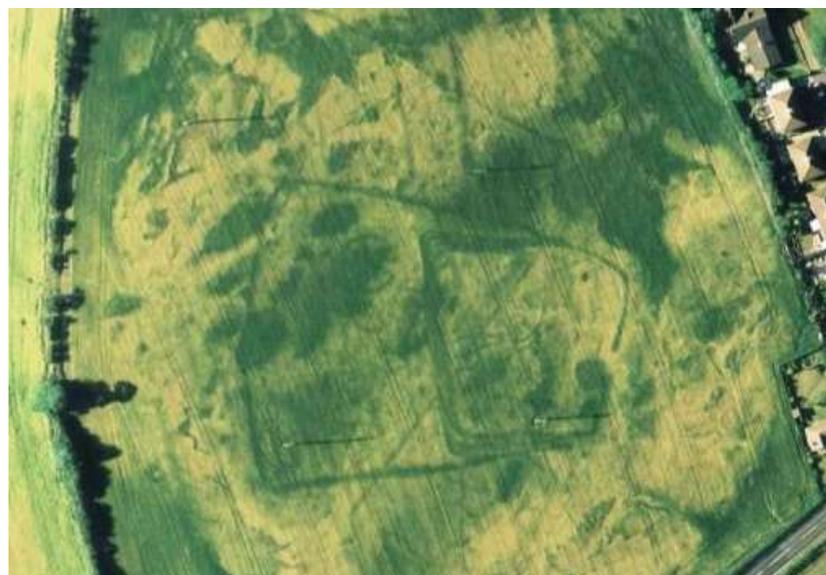
Condition Assessment	Copt Hill in good condition but issue of Seven Sister trees/replanting needs thought.; Warden Law, semi artificial tree covered mounds appear in good condition but remainder of area under arable cultivation and therefore presumed poor condition.
Proposed conservation (Archaeology)	<p>Support the ongoing work of the Friends of Copt Hill, and widen their interests to include neighbouring Warden Law.</p> <p>Undertake archaeological evaluation work at Warden Law including geophysical survey of mounds and wider area of interest to inform management and interpretation.</p> <p>Pending archaeological evaluation, conserve and interpret the sites archaeological remains possibly through reversion of arable fields to pasture.</p>
Proposed Conservation (Historic Landscape)	With archaeological precautions, maintain tree cover at both sites as visible landmark features
NERRF Research objectives	N6, NBiii, NBv, NBvi, NBvii.
Community involvement opportunities	Friends of Copt Hill
Identified partners and stakeholders	Sunderland City Council/Friends of Copt Hill /English Heritage
Geology Synergies	Non identified
Bio-Diversity Synergies	Arable reversion at Warden Law could provide Mag-Lime grassland restoration possibility

Key Site 4. Redworth; Shackleton Hill Iron Age Hill Fort.	
Local Authority	Darlington Borough Council
Grid Ref	422922 523307
HER Ref	D1453 D1456 D3175
Land Ownership	Private
Legal Status	Scheduled Ancient Monument (SM32720)
Description	Shackleton Beacon is one of only two definitive Iron-Age hillforts between Tyne and Tees. Although a scheduled ancient monument there is no public access and it is covered with unmanaged woodland and so has not been investigated archaeologically nor does it contribute to the historic landscape character to its full potential. The site also has strong bio-diversity interest, the ruin of an 18 th century windmill and folly on top of the hill which also has connections with early antiquarians of the Surtees family who lived in the neighbouring Redworth Hall (now an hotel)
	
<p><i>Shackleton Beacon Iron-Age Hill fort from the south. The prominent hill captures wide views of the surrounding landscape but is covered in largely 20th century tree growth.</i></p>	

Limestone Landscapes Historic Environment Audit and Action Plan

Proposals	
Access (Current)	Limited both physically and intellectually. PROWs to north and south but no access to the hill. Hill covered in established woodland for last 150 years and so no visibility in the landscape as would have been the intention both in the Iron-Age and up to the 19 th century when the windmill was in use.
Access (potential)	Permissive public access and low key interpretation.
Interpretation (current)	Non identified
Interpretation (proposed)	Self guided walking trails.
Condition Assessment	No site appraisal possible, tree cover and a possible badger set suggest past and continuing damage to buried archaeological deposits. Nevertheless site visit c.1999 by author noted excellent survival of fort ditches and banks. EH Monuments At Risk Survey (2007) noted 'There are hundreds of small trees growing on the hillfort on Beacon Hill which should be cleared before they inflict further damage on the buried archaeological remains and become too expensive to remove owing to their size.
Proposed conservation (Archaeology)	Detailed survey and evaluation excavation of the monument to provide understanding and dating. Removal of trees, stabilisation of windmill/gazebo ruin.
Proposed Conservation (Historic Landscape)	Removal of trees to re-establish hill forts presence in the landscape. Loss of woodland could be balanced with woodland planting on arable pasture land at base of hill.
NERRF Research objectives	Li, Lii, Liii, Lv, Lvi, Lviii, F1
Community involvement opportunities	Aycliffe Village Local History Society,
Identified partners and stakeholders	Landowner, Redworth Hall Hotel, English Heritage, Darlington Borough Council, English Heritage, DCC Archaeology Section.
Geology Synergies	Non identified
Bio-Diversity Synergies	Close working required to agree tree clearance where required for archaeological conservation and interpretation. Possible bat and badger issues.

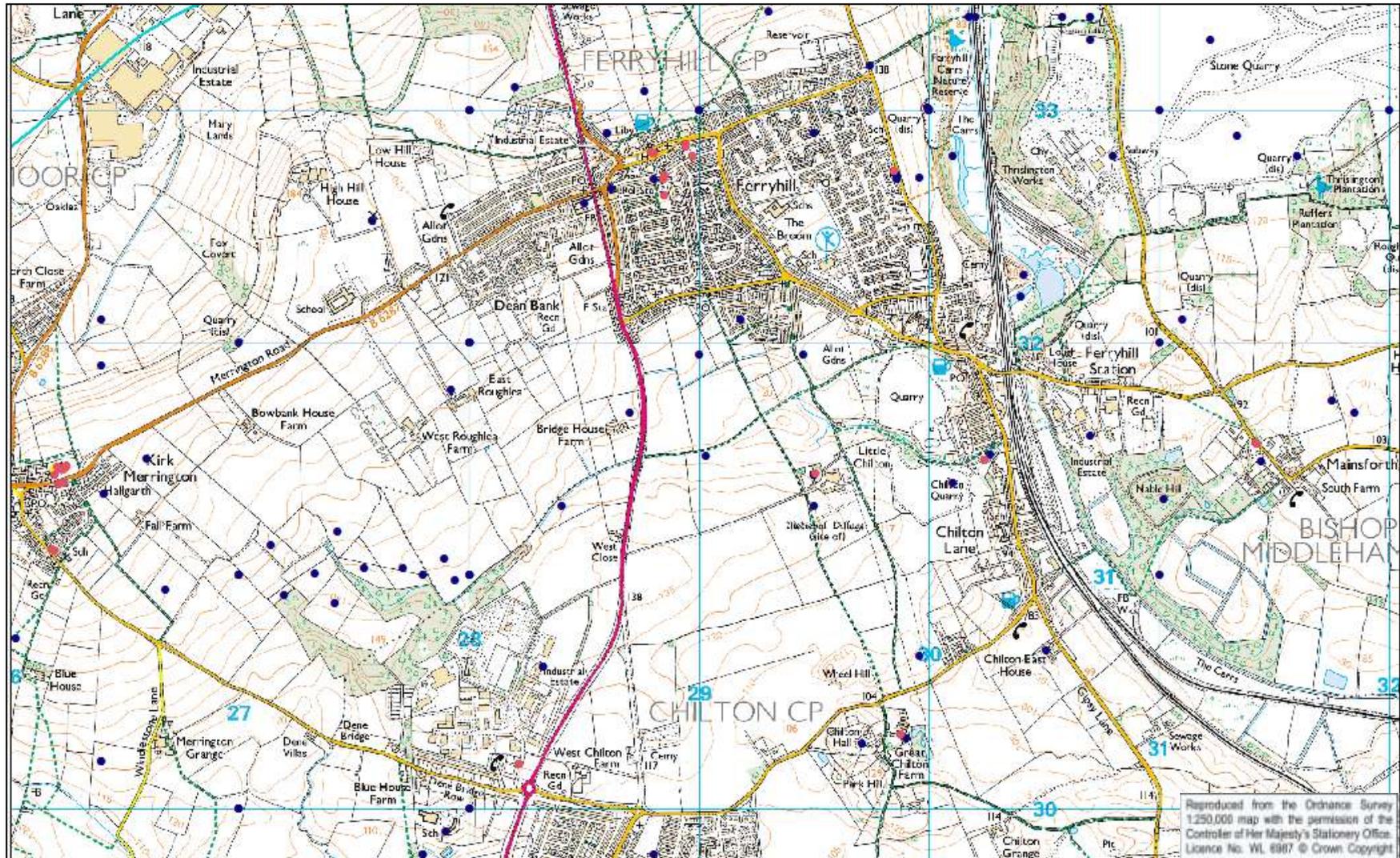
Key Site 5. Ferryhill; landscape scale investigation and conservation	
Local Authority	Durham County Council
Grid Ref	Various (see attached map)
HER Ref	Various
Land Ownership	Various
Legal Status	Various
Description	<p>An undervalued area of archaeology and historic landscape which the audit for this report together with the reporting of several new sites and finds through the portable antiquities scheme has indicated would make an ideal area for a project not focussed on one particular site or theme but a wider understanding of the historic landscape.</p> <p>Themes of note include late Anglo-Saxon occupation at Ferryhill, pagan Anglo-Saxon metal detector finds/possible cemetery, significant prehistoric enclosure and ritual site at Chilton Lane. Major Limekilns (a Building At Risk) at Ferryhill Station, medieval swan House at Ferryhill Cars. The area includes a working quarry and the Ferryhill Gap with its Carr lands the best such area within the LL area. These are also both important geological and bio-diversity features.</p>



Prehistoric crop mark complex east of Chilton Hall. (left) from Google Earth (c) 2006.

Site from the SW in 2009 under arable cultivation (right).





Key Site 5 proposed project area. Blue dots represent Durham HER known archaeological sites. |

Limestone Landscapes Historic Environment Audit and Action Plan

Proposals	
Access (Current)	Limited both physically and intellectually
Access (potential)	Web site with self guided walks and information. Public participation in fieldwork, Popular publication.
Interpretation (current)	Non identified
Interpretation (proposed)	Self guided walking and cycling heritage trails.
Condition Assessment	Unquantified at present, but certain major sites such as the prehistoric crop mark complex at Chilton Lane is under arable and presumably being damaged.
Proposed conservation (Archaeology)	<p>Detailed desk based assessment of project area.</p> <p>Presentations/talks/walks/lectures to local schools and groups</p> <p>Investigation of selected sites to include wide spread organised metal detecting and field walking, and trial excavation.</p> <p>Bio-diversity and geo-diversity partnership project looking at palaeo-botanical resource of carr lands at Ferryhill Gap/Carrs</p>
Proposed Conservation (Historic Landscape)	Pending fieldwork, investigate reversion to pasture for cropmark sites currently under arable with restoration of traditional hedgerows and boundaries.
NERRF Research objectives	Various
Community involvement opportunities	Significant through local schools in particular with field work and research. School & community liaison through presentations and guided walks to raise interest and awareness and identify sites for further investigation which capture the communities interest.
Identified partners and stakeholders	Metal detecting groups locally based, Aycliffe History Society, English Heritage (capacity building grant), AASDN.
Geology Synergies	Ferryhill Gap, Thrislington Quarry.
Bio-Diversity Synergies	Arable to grassland reversion, hedgerow and boundary restoration, palaeo-botanical sampling of wetland deposits at Ferryhill Carrs.

Key Site 6: Seaham St.Marys & Headland; early Christian Heritage	
Local Authority	Durham County Council
Grid Ref	NZ 42240 50499
HER Ref	D6731 D4713 D12596
Land Ownership	Diocese of Durham, Local Authority, Seaham Hall Hotel.
Legal Status	Grade I listed Building (St.Marys), Active burial ground.
Description	Both church and neighbouring Early Christian cemetery have been the subject of survey and excavation by Peter Ryder, DCC and Durham Uni. All of this still requires proper academic synthesised publication. The site continues to stimulate considerable local interest. Work by Sarah Semple of Durham University indicates new areas worthy of investigation within the churchyard possibly relating to the pre-conquest church.



Seaham St.Marys from the SE (above). Excavation with community support of early Christian cemetery to the north of St.Marys in 1999.





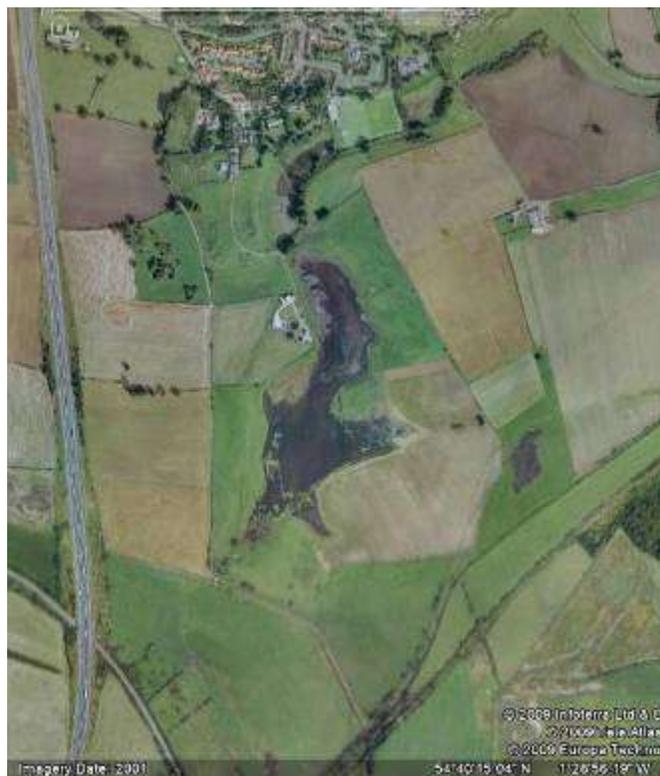
Current interpretation of Seaham St.Mary's Church and early Christian heritage. The sculpture on the right is in the shape of the church floor plan within which is set interpretative material (left).

Proposals	
Access (Current)	Permissive but excellent. Good car parking, well used by locals, potential for foot trails via Old Hall drive and ice-house to the south-west back to Seaham Harbour. Other visitors to beach and Hall hotel present opportunity to attract in a wider visitor group not usually interested in heritage.
Access (potential)	Increased intellectual access to new information and better understanding of the site.
Interpretation (current)	Interpretation panels and public art along Seaham seafront. Living graveyards panel at entrance to churchyard.
Interpretation (proposed)	Updated material from any new information. Revised guide book to St. Marys. Information placed in Seaham Hall Hotel.
Condition Assessment	7 th century cemetery excavated in 1999 was buried c. 600mm deep and presumed safe. Graves in good condition but some plough damage in the past.

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Proposed conservation (Archaeology)	Non needed
Proposed Conservation (Historic Landscape)	Non anticipated, but The Flower Filed over the top of the cemetery could be restored to Victorian Garden layout as setting for The Hall, or alternatively a Mag Lime grassland regime re-established.
NERRF Research objectives	EM2 (as part of estates of Wearmouth-Jarrow), EM3, EM6
Community involvement opportunities	Local community have already shown a considerable appetite for information on their early Christian heritage. Participation from local history group and church likely.
Identified partners and stakeholders	Department of Archaeology, Durham University Church of St.Mary. Seaham Town Council
Geology Synergies	Link local stone in the construction of the Church to availability of local quarries
Bio-Diversity Synergies	Living graveyard flora, also possibility of returning Flower Filed to Mag-Lime managed grassland

Key Site 7; Bishop Middleham; Medieval Bishop's residence, fishponds and deerpark	
Local Authority	Durham County Council
Grid Ref	432735 531064
HER Ref	D1117 D1119 D1116
Land Ownership	Private
Legal Status	Scheduled Ancient Monument DU77 (part), Conservation Area (part)
Description	The earthworks of the former Bishop's palace are a scheduled ancient monument and have a good quality interpretation board. The wider landscape consisting of former medieval fishponds and a deer park still with a large part of its wall upstanding (but at risk) but is neither scheduled or listed has little profile and is outside the village conservation area. The park has produced a number of notable archaeological finds including an Iron-Age blue glass bead and a set of bronze Roman paterae.



Bishop Middleham; Fomarts Lane and decayed park wall looking north on east side of Park and Bishops Palace (far left).

Google Earth image, near left. (Dec 2001), showing Bishop Middleham Village to the north, A1 to the west. The Palace sits on a promontory jutting out from the south of the village and the park wall can be seen running southwards from here. The large central lake to the Deerpark is a result of rising mine water levels and has only be present for around 10 years.



Iron-Age bead (above left), and Roman Paterae (below left), both found in the medieval deer park. Reconstruction drawing (right), of the church and palace site c. 1300 (DCC).



Proposals	
Access (Current)	PROW through the palace site and around the perimeter of the deerpark, access is informal and not well known beyond the village.
Access (potential)	Access to medieval fishponds, wider knowledge of the site, self guided walking trail.
Interpretation (current)	A series of information panels around the village provide good coverage of historic environment issues, including one with a reconstruction drawing overlooking the palace site.
Interpretation (proposed)	Walk leaflet around the village and signposted route around the perimeter of the deerpark as a circular route. Wider environmental information if access can be arranged to the fish ponds.
Condition Assessment	Despite improved care of the site, some agricultural rubbish remains on the palace site, the deerpark wall although substantial should be viewed as at risk. The ponds are silted up to a considerable degree.
Proposed conservation (Archaeology)	Revise and update scheduling and conservation area to offer protection to medieval fishponds. Deerpark. Consider restoration of Park Wall and Fish Ponds to include archaeological recording and palaeo-environmental sampling of ponds.

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Proposed Conservation (Historic Landscape)	Consider restoration of Park Wall and Fish Ponds.
NERRF Research objectives	MDi MDii MDiv
Community involvement opportunities	Local school, Bishop Middleham and Sedgefield Local History Societies
Identified partners and stakeholders	Landowner English Heritage Natural England Northumbrian Water (sewage treatment plant within the deer park) DEFRA Stewardship
Geology Synergies	Quarry source of wall and village stone used for building
Bio-Diversity Synergies	Considerable with ponds and grassland management of scheduled palace site.

Key Site 8; Old Cassop and Cassop Vale	
Local Authority	Durham County Council
Grid Ref	422922 539497
HER Ref	D1077 D5811 D6758
Land Ownership	Various
Legal Status	Conservation area (Old Cassop Village)
Description	<p>Old Cassop is a small hamlet designated as a conservation area with a variety of distinctive local buildings. Its prominent setting on the Magnesian Limestone Escarpment amongst an excellent enclosure hedgerow system which contains rig and furrow and other agricultural earthwork features make it a potential exemplar of a Magnesian Limestone farming hamlet from the era pre-coal mining exploitation. Field system and traditional farm buildings are falling into disrepair due to changed priorities and economics of modern farming.</p> <p>Neighbouring Cassop Vale is a local nature reserve and contains evidence for earlier land use and quarrying, but currently has little mention of historic environment issues.</p>

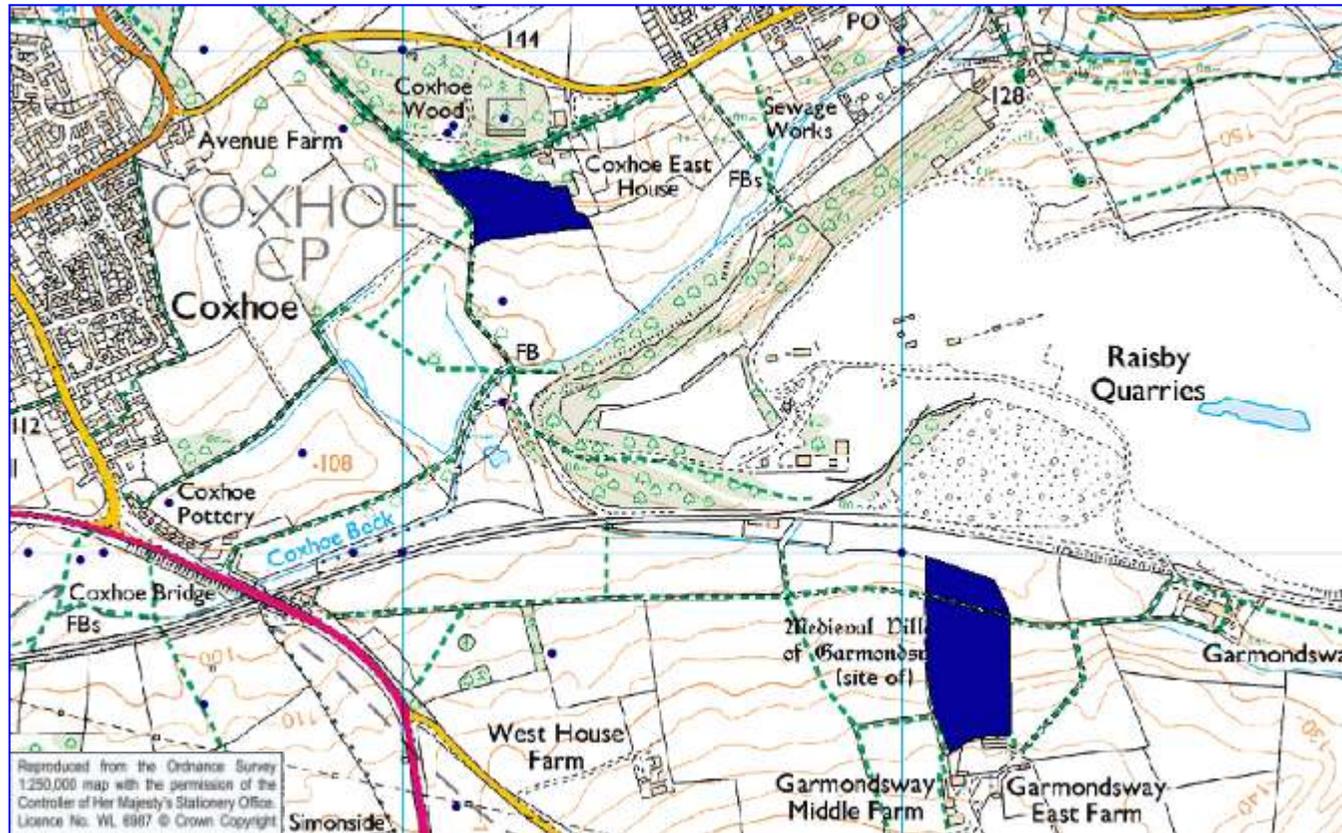


Old Cassop. Looking north across area of old dykes, ponds, hedgebanks and pasture (right). Late 18th/early 19th century vernacular cart shed using local materials and in need of repair (above).

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Proposals	
Access (Current)	Excellent access to Cassop Vale LNR, reasonable PROW network connecting Old Cassop and Cassop LNR.
Access (potential)	Provide interpretation to encourage visitors to Cassop Vale LNR to walk on an existing PROW loop via Old Cassop. Work with LNR to interpret historic features in addition to bio and geo-diversity to provide an holistic understanding of the landscape.
Interpretation (current)	Limited at LNR
Interpretation (proposed)	Self guided walk material balancing historic, bio-diversity and landscape information.
Condition Assessment	Hedges and hedge banks becoming gappy, several redundant but high quality traditional agricultural buildings in poor condition
Proposed conservation (Archaeology)	Work through the conservation character appraisal for Old Cassop to repair traditional farm buildings and maintain historic landscape features such as hedgebanks, rig and furrow and drainage dykes.
Proposed Conservation (Historic Landscape)	Encourage restoration of hedgerows and traditional farm buildings by engaging local farmers/landowners and entries to DEFRA Stewardship scheme.
NERRF Research objectives	MOiii
Community involvement opportunities	Consider friends /volunteer group to work not only on LNR but surrounding landscape along identified PROW loop
Identified partners and stakeholders	LNR/DCC
Geology Synergies	Several quarries within the area
Bio-Diversity Synergies	Working with local nature reserve staff at Cassop Vale

Key Site 9; Garmondsway and Coxhoe Hall; medieval land use and deserted villages.	
Local Authority	Durham County Council
Grid Ref	434141 534771 (Garmondsway); 433191 535696 (Coxhoe East House); 433083 535885 (Coxhoe Hall)
HER Ref	D1129 (Garmondsway), D3261 (Coxhoe East House), D2512 (Coxhoe Hall)
Land Ownership	DCC (Coxhoe Hall, private other).
Legal Status	Scheduled Ancient Monuments (Coxhoe East House SM34585; and Garmondsway SM20969 DMVs)
Description	<p>The LL project area is particularly rich in the remains of deserted medieval villages. These sites whilst evocative landscape features in their own right can through appropriate investigation and interpretation be used to explain a wide variety of environmental , social and historical events and factors on settlement and the rural landscape.</p> <p>Although there are several deserted medieval villages in the LL area of which 8 are scheduled in whole or part, there is currently no specific on-site interpretation of any such deserted site.</p> <p>Several such village sites have been lost in the last 50 years, some such as Grindon (Durham), ploughed away with no record, others such as Thrislington recorded in extreme detail before quarrying.</p> <p>Garmondsway is an exceptionally well preserved and defined site, while Coxhoe Hall and Coxhoe East House provides further DMV earthworks, and the ruins of the manor house associated with Elizabeth Barrett-Browning (in the ownership of DCC). Both Garmondsway and Coxhoe East House are scheduled ancient monuments</p>
	<p><i>Garmondsway deserted medieval village earthworks looking SE. (c)Norman McCord (Left). Coxhoe Hall, pictured c. 1910 before demolition in 1956.(below)</i></p> 



Project area, showing scheduled deserted medieval village sites of Garmondsway and Coxhoe East House in blue, Coxhoe Hall and former gardens are just to the north of Coxhoe East House in area marked as 'Coxhoe Wood'.



Durham CC Archaeology Section ran a successful series of week long excavations at Coxhoe Hall in 2000-2001 for local school children with lottery funding.

Proposals	
Access (Current)	Good PROW network, public access to Coxhoe Hall and woods
Access (potential)	Improved link via Raisby Quarry
Interpretation (current)	Non
Interpretation (proposed)	With additional survey of Garmondsway/Coxhoe DMVs and filed systems and the use of material from well investigated DMV sites across the area, provide interpretation of Garmondsway DMV and Coxhoe Hall and surrounding filed systems of landscape along existing PROWs

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	<p>Provides an opportunity for additional interpretation of Raisby Quarry en route between the two sites.</p> <p>Story behind Coxhoe Hall can be incorporated; from the home of Poets, to demolition by the Coal Board. Making use of several years of research and excavation by Durham City and County Councils. Large amounts of 18th century decorative plasterwork in museum storage. Foundation of hall, walled garden, drive, gates all still visible. Also close to site of excavated Iron-Age Round House, finds in the Fulling Mill Museum.</p> <p>Consider continuation of Time Detectives dig with further work at Coxhoe Hall and Coxhoe East House DMV.</p>
Condition Assessment	Good
Proposed conservation (Archaeology)	Appropriate grazing regimes for earthwork sites. Scrub management and basic consolidation of exposed walls for Coxhoe Hall. Walled garden provides opportunities for restoration/interpretation/commercial market gardening/allotments.
Proposed Conservation (Historic Landscape)	Maintenance of traditional field boundaries around scheduled sites. Maintain layout of Coxhoe Hall, drive, lawns and gardens as landscape features.
NERRF Research objectives	MDi, MDii MDxi PM5
Community involvement opportunities	Local Schools, DCC Archaeology, Bowburn Local History Group
Identified partners and stakeholders	DCC/Landowners/Raisby Quarry/English Heritage
Geology Synergies	Proposed walking route takes in Raisby Quarry
Bio-Diversity Synergies	Maintenance of Mag-Lime pasture, enhancement of woodland around Coxhoe Hall.

Key Site 10; Ludworth	
Local Authority	Durham County Council
Grid Ref	435614 541283
HER Ref	D1146 D12246 D1147 D1145
Land Ownership	DCC (Ludworth Tower), Private (village and mill earthworks)
Legal Status	Ludworth Tower is a Scheduled Ancient Monument (DU76) and Listed Building Grade II.
Description	The prominent remains of an early 15 th century fortified tower house built of Magnesian Limestone, stand in a small area of grassland to the west of the post medieval mining village of Ludworth. One of only two surviving fortified medieval towers in the Limestone Landscapes study area. To the south on the opposite side of the road is an area of pasture adjacent to the Shadforth Beck which contains surviving earthworks either of the larger complex of manorial buildings which would have accompanied the tower, or more likely the medieval village and mill.



Ludworth Tower (left), built c.1422 of local Magnesian Limestone and now a scheduled ancient monument sitting in high quality Mag-Lime grassland. Earthworks of the medieval village of Ludworth to the south of the tower (above). No legal protection but of significant historic interest and high ecological value as Mag-Lime riparian habitat beside the Shadforth Beck.



Ludworth Tower, two phases of interpretation, one of historic interest in its own right, and a more recent Magic Meadows panel which has a good mixture of ecological and archaeological information but is poorly aligned with the Tower. Note also the poor quality post and wire fencing which surrounds the site despite the fact much of the boundary is an historic hedgebank crying out for restoration as both a valuable historic and bio-diversity feature.

Proposals	
Access (Current)	Open access to Tower, no access to village earthworks and pasture next to the Shadforth Beck. No clear car parking space and so dangerous to stop
Access (potential)	Open access to both areas, or at least a permissive path providing a circular route from the tower alongside the beck. Clear car parking space identified.
Interpretation (current)	Two panels, one cast metal and of historic interest in its own right, one more recent GRP panel erected

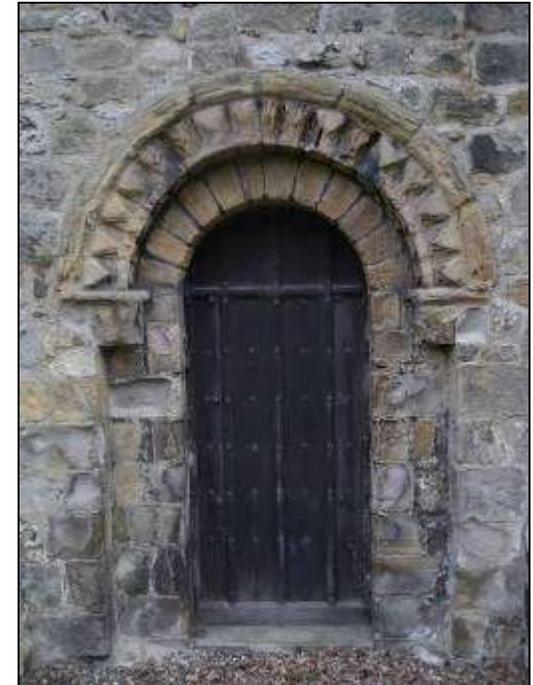
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	as part of Magic Meadows providing good balance of historic and ecological information. No interpretation of wider countryside setting and earthworks to south of road next to Shadforth Beck.
Interpretation (proposed)	Circular path/open access to re-unite tower with earthworks by Shadforth Beck, to include discrete interpretation of landscape setting/detail of medieval tower and village.
Condition Assessment	Generally good, but tower requires regular structural checks and maintenance to maintain stability and public safety; re-pointing may be required in next 5-10 years.
Proposed conservation (Archaeology)	Survey earthworks in pasture field to the south alongside Shadforth Beck and revise dated scheduling record. Consider targeted trial excavation of earthworks with community support to obtain clear evidence of date and function to inform scheduling decision.
Proposed Conservation (Historic Landscape)	Restore and replant hedgebanks around scheduled site with more traditional and sympathetic boundary and gate to public highway.
NERRF Research objectives	
Community involvement opportunities	Ludworth Community Association (History Group), were given an HLF grant 2006 to explore their village history which was well supported.
Identified partners and stakeholders	Ludworth Community Association, DCC, English Heritage.
Geology Synergies	Building materials of tower are important demonstration of use of local Magnesian Limestone.
Bio-Diversity Synergies	Significant for Mag-Lime grassland and restored Hedgebanks. Also riparian habitat along Shadforth Beck.

Key Site 11; Dalden Tower and Dawden Dene	
Local Authority	Durham County Council
Grid Ref	442005 548731
HER Ref	D2503 D8922 D12597
Land Ownership	DCC (Dalden Tower)
Legal Status	Dalden Tower- Scheduled Monument SM34576, Listed Building Grade II*. St. Andrews Church Listed Building Grade I.
Description	Dawden Dene is one of many deeply incised east-west valleys running through the Magnesian Limestone to the sea. It lies on the urban fringe of Seaham Harbour and provides a green lung running westwards from the town into the countryside to the hamlet of Dalton-le-Dale and the church of St. Andrew of pre-Norman Conquest foundation. Dalden Tower at the east end of the Dene is one of only two surviving medieval fortified tower houses within the Limestone Landscapes project area and in addition to the tower has the exposed foundations remains and walls of a medieval hall house and post medieval house which were excavated in the mid 1960's and again in the later 1980's. The site has in turn been owned and occupied by several of Durham's prominent families including the Bowes and Pembertons and material from the excavations included imported high status late medieval continental pottery..



Dalden Tower (above, left), lost in a sea of mown grass, but possessing exquisite detail such as this medieval niche (above). St. Andrews Church Dalton-le-Dale (right), historic fabric in local stone with Anglo-Saxon





Persistent vandalism problems



Lack of maintenance is allowing the hall range excavated in the 1980's to become overgrown.



Boundary wall and tree growth shield the tower from the road and detract from landscape presence and security. Poor quality modern wall (to right) and trees should be removed.

Proposals	
Access (Current)	Open access to Tower, open path and grassland along much of Dawden Dene to Dalton-Le-Dale Church.
Access (potential)	Way marking and clearer marked trails along the dene and from Seaham urban area.
Interpretation (current)	Non (surviving). Persistent vandalism problems have seen the demise of a number of interpretation panels at the Tower.
Interpretation (proposed)	Interpretation of the Tower, dene and St.Andrew's church as part of a self guided trail. Access to finds from the earlier excavations (held in Bowes Museum storage) in a publically accessible display which makes reference to visiting the site.
Condition Assessment	Tower in declining condition and subject to vandalism.
Proposed conservation (Archaeology)	Remove graffiti from tower fabric. Scrub clearance from hall range of tower. Regular condition assessment and maintenance of tower structure. Assess and fund publication of 1980's excavations including important collection of late medieval pottery with continental trade connections.
Proposed Conservation (Historic Landscape)	Remove modern wall and trees separating tower from road. Re-establish, lower traditional boundary providing views to and from Tower to wider landscape.

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NERRF Research objectives	F2, MD3 MDiv MDvii MDix MDx PMiii (Dalden Tower); MD4
Community involvement opportunities	Engage with local schools to care for Dalden Tower, perhaps through an adopt a monument scheme and so discourage future vandalism while encouraging use of the tower in history curriculum.
Identified partners and stakeholders	DCC, English Heritage, Story of Seaham Group
Geology Synergies	Use of local stone as building materials, some exposed rock sections along Dawden Dene.
Bio-Diversity Synergies	Open access grassland around tower and between tower and church is currently mowed in a 'lawn' like fashion. This could be better managed for Mag-Lime grassland.

Key Site 12; Hart Village; <i>The Village Atlas</i>.	
Local Authority	Hartlepool Borough Council
Grid Ref	NZ (4)469 (5)349
HER Ref	Various
Land Ownership	Various
Legal Status	Scheduled Monuments SM32743 & SM32745, several listed buildings.
Description	Hart is an historic village with pre-conquest origins and was the manorial centre for the area during much of the medieval period. The village contains a church of pre Norman Conquest origins and the upstanding remains of a significant 'great house' a stone medieval manor house, partially excavated in the late 1970s, with associated fishponds (both scheduled as an ancient monument). The village is built on a medieval plan form and contains several buildings of local vernacular character but has been declined conservation area status despite significant expressed local support for some form of recognition and protection for the historic character of the village.



Hart Village; modern and historic wind power (left), village street with vernacular buildings (above), the De Brus Wall (above right), surviving element of medieval manor house and associated medieval fishpond (right)





Existing interpretation and interest in heritage is strong (left). Carving of St. George and the Dragon on south side of Hart church.[



Proposals	
Access (Current)	Good access to most sites of historic interest, and a walking trail to historic Hart has been established.
Access (potential)	Intellectual access to the villages heritage can be improved and made available to the wider community
Interpretation (current)	Heritage trail around the village with information panels
Interpretation (proposed)	Village Atlas project to involve wider community in their heritage and its management.
Condition Assessment	Generally good, but in absence of conservation area designation some design guidance to encourage retention of traditional windows, doors ,roofing materials etc is required to maintain local character.
Proposed conservation (Archaeology)	Condition assessment and repair schedule for the de-Brus wall scheduled monument. Design guidance and awareness from Village Atlas project
Proposed Conservation (Historic Landscape)	Work through the Village Atlas programme to provide design guidance for maintenance of older buildings and construction of new using local materials and styles to maintain character.
NERRF Research objectives	MG40
Community involvement opportunities	Local school is immediately adjacent to De Brus wall and church, considerable expressed interest in conservation from Parish Council. Village Atlas intended to involve wide range of community.
Identified partners and stakeholders	Local School, Parish Council. Tees Archaeology.
Geology Synergies	Evidence of use of local building materials from medieval times
Bio-Diversity Synergies	Area of scheduled medieval fish ponds currently under pasture could be more sympathetically managed for Mag-Lime grassland.

Key Site 13; Monk Hesledon	
Local Authority	Durham County Council
Grid Ref	NZ (4)45554 (5)311149
HER Ref	DHER 4572 DHER 8079
Land Ownership	Diocese of Durham /Durham County Council
Legal Status	Non (heritage), redundant churchyard.
Description	The church of St Mary, Monk Hesledon was criminally demolished around 1966 in slightly suspicious circumstances and reputedly over one weekend. The earliest parts of the church probably dated to the late Anglo-Saxon period (10th-11th centuries). The south door certainly was Norman period in design (11th-12th centuries) while the nave was probably built in the 13th century as were blocked doors and windows observed in the nave walls. The church was then much 'improved' around 1794 giving it a more Georgian appearance. For a long time, St. Marys' was the only local church, until the construction of St. James at Castle Eden, in the 1760s. Even with the advent of the collieries at Blackhall, Hesleden, and Horden, for a great deal of time, St. Mary's was the only local Anglican church, and with Castle Eden, the only local cemetery, so despite the village's dwindling population, the church remained in use. A number of fragments of carved stone were collected from the rubble of the building after its demolition including the remains of a beautifully carved stone screen now in the Bowes Museum. It shows scenes from the crucifixion of Christ, and probably dates to the 14th or 15th century AD.



Marker stone for centre and site of church.



Site of the church.



The grave yard

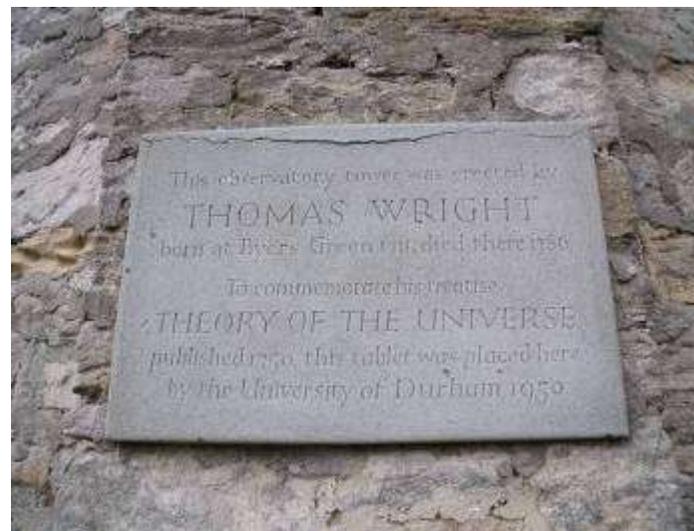


Management issues; as with many old graveyards health and safety of old headstones is an issue, the adopted policy of merely laying them flat will however destroy character and ultimately lead to loss of memorials and their inscriptions. (left and above left). The site is also been explored illegally by metal detectorists (above right).

Proposals	
Access (Current)	PROW and open access.
Access (potential)	Part of circular walk, improved sign posting
Interpretation (current)	Non save a solitary iron marker stone
Interpretation (proposed)	Discrete interpretation, link site information with Bowes Museum display of the altar screen.
Condition Assessment	Unknown without evaluation, condition of gravestones a concern as many are becoming unstable and instead of repair a policy of lying flat has been adopted.
Proposed conservation (Archaeology)	Initial evaluation excavation and geophysics to establish survival of church foundations.
Proposed Conservation (Historic Landscape)	Maintain boundaries of churchyard and mark site of church as visible components of the historic landscape, including approach from Monk Hesledon village green.
NERRF Research objectives	EMvi MD4 MDv MDvi MG33 MG40
Community involvement opportunities	Participation in any excavation and contribution to interpretation
Identified partners and stakeholders	AASDN, Tees Archaeology Society, DCC. Residents of Monk Hesledon

Geology Synergies	Non identified
Bio-Diversity Synergies	Habitat survey of church yard, links to PROW and semi-natural woodland in Hesledon Dene to the south. Adopt a 'living churchyard' scheme for nature conservation
<i>Additional Photo of part the Altar Screen now in the Bowes Museum showing Christ rescuing sinners from the mouth of Hell while the Devil looks on.</i>	 A stone relief carving depicting a biblical scene. On the left, a figure representing Christ stands on a cross-like structure, reaching out to rescue sinners. In the center, a group of people is shown being pulled out of a dark, cavernous opening representing the mouth of Hell. On the right, a figure representing the Devil looks on with a menacing expression. The carving is set within a rectangular frame.

Key Site 14; Westerton Hill: High point and observatory	
Local Authority	Durham County Council
Grid Ref	NZ (4)2100 (5)3105
HER Ref	DHER 14014
Land Ownership	Not known
Legal Status	Listed Building Grade II
Description	Observatory sitting on the village green. Used at one time as reading room and by 1924 as council office. Built c1765. For Thomas Wright of Byers Green. Rubble stone with ashlar dressings; no roof. Tall round tower of 3 storeys. Ground floor has 6 shallow buttresses with offsets and coping. Rusticated round-headed surround to blocked door at east. Plain stone Tudor-arched surround between 2nd and 3rd buttresses left from door. Cross arrow slits in ground floor. First floor band. Arrow slits and small lancet slits, probably stair lights, above. Each upper floor has a round-headed opening facing north-east. All lights blocked except first-floor south-east lancet and second floor larger opening. Top band. No access to interior. Commemorative plaque to left of door, "This observatory tower was erected by Thomas Wright born at Byers Green 1711 died there 1786. To commemorate his treatise THEORY OF THE UNIVERSE published 1750, this tablet was placed here by the University of Durham 1950."



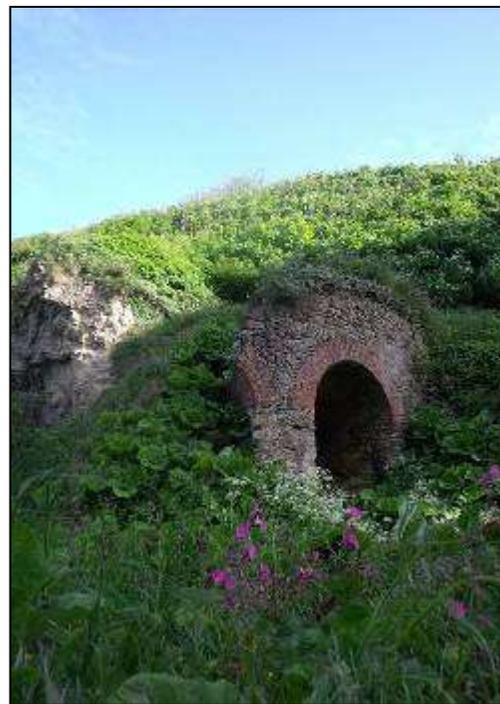
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Proposals	
Access (Current)	Non, only external viewing
Access (potential)	Following structural repairs provide access to a viewing platform by installation of an internal metal/timber structure. Open door blocking and insert secure metal gate to be opened by appointment or on Heritage Open Days etc.
Interpretation (current)	Commemorative plaque to Thomas Wright erected in 1950
Interpretation (proposed)	More in depth and informative information regarding Thomas Wright and at its highest point the Magnesian Limestone area.
Condition Assessment	Poor, should be considered a building at risk.
Proposed conservation (Archaeology)	Requires conservation management plan and structural report to be followed by re pointing and required repairs.
Proposed Conservation (Historic Landscape)	The tower forms a valuable historic landscape feature in its own right and so no further conservation is proposed
NERRF Research objectives	
Community involvement opportunities	Local schools with scientist of international note, training opportunities in building conservation, local residents in exploring their own heritage/acting as building wardens.
Identified partners and stakeholders	Durham University physics department and Astronomy Society.
Geology Synergies	Use of Magnesian limestone in construction, highest point above sea level of Durham Magnesian Limestone.
Bio-Diversity Synergies	Village green could be better managed for Mag-Lime grassland. Possible bat issues in any restoration work, which should ensure bat roots are maintained.

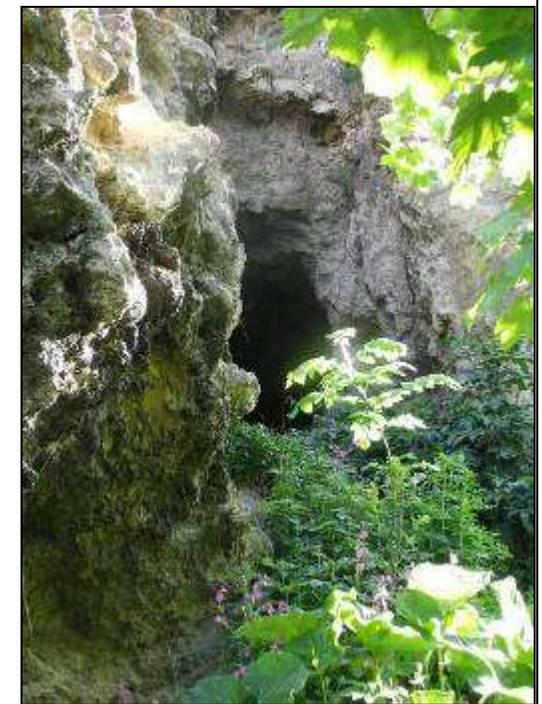
Key Site 15; Hawthorn Dene & Beacon Hill	
Local Authority	Durham County Council
Grid Ref	NZ (4)42 (5)45
HER Ref	Various
Land Ownership	National Trust, Durham Wildlife Trust, Railtrack, DCC, Private.
Legal Status	Some listed buildings, Hawthorn Conservation Area
Description	The 2 or 3 square kilometres between Hawthorn village and the coast, squeezed between the urban areas of Seaham Harbour to the north and Easington Colliery to the south represent possibly the best surviving pre-industrial coastal landscape of the Magnesian Limestone. The area is largely in the ownership of conservation charities and DCC and presents an ideal opportunity to demonstrate informed holistic conservation and interpretation. Historic remains are extensive and include prehistoric flint sites, several caves with potential for occupation deposits, quarrying and lime burning, 18/19 th century designed landscapes, post medieval agriculture, coal mining, railways, water mills and WWII coastal defence.
<div style="display: flex; justify-content: space-around;">     </div> <p><i>Hawthorn Dene (northside) has an excellent if poorly marked network of PROWs and permissive paths leading from the village to the sea (right), These paths pass many features of historic interest such as overgrown quarries and a lime kiln which have no interpretation or management (above left). The network of paths ultimately provides access to Hawthorn Hive beach, apparently natural but with a raised area of colliery waste (above left, and left)</i></p>	



Hawthorn Hive, looking west into Hawthorn Dene, in the foreground a WWII Type 22 Pill box stands in front of exposed and quarried Magnesian Limestone; in the centre middle distance is a late 18th century lime kiln, while at the rear towers the Grade II listed Railway viaduct of 1905 built for the North East Railway.



Hawthorn Hive, closer view of late 18th century twin pot limekiln Still a significant presence but falling into decay..



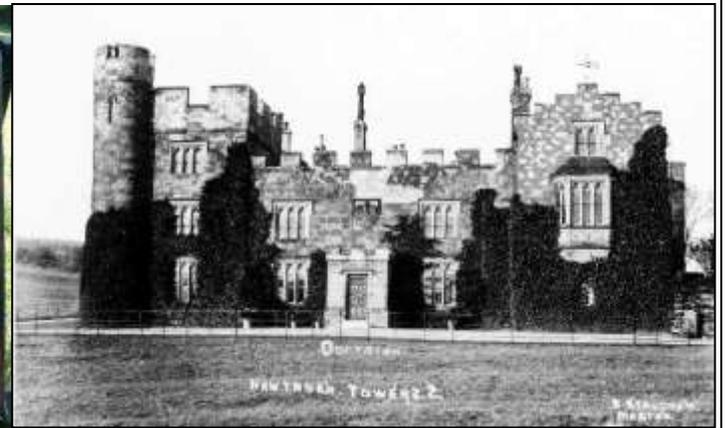
Hawthorn Dene close to the beach at Hawthorn Hive is an easily accessible cave one of several in the area. These have considerable archaeological potential for habitation from prehistoric times until the early 20th century, and for burial and depositional activity of the Bronze-Age in particular.



Hawthorn Dene (left), contains the remains of a number of summer houses and pleasure buildings including 'Sailors Hall' and rock cut grottos. This is part of an increasingly lost and decaying late 18th or early 19th century designed landscape associated with the now demolished house of Hawthorn Towers



Beacon Hill (above), a prominent high point with far reaching views in all directions. Only the barn survives of the late 18th century farmstead. The surrounding field pattern is still of some historic significance showing evolution from the late medieval period onwards in a series of significant hedgebank and earthworks of abandoned farmsteads. Hawthorn Dene Meadows (below), current interpretation fails to mention this 'natural' grassland was until 1950 occupied by a dramatic 19th century gothic house (below far right) with gardens, orchards and its own private railway halt in the very area directly in front of the interpretation board.



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Project Area with links east-west from Hawthorn Village to the Coast, and north south with the Durham Coastal Footpath. (Blue dots represent HER sites, pink dots are listed buildings).



Proposals	
Access (Current)	Good existing network of PROWs provides circuit walk and access to major sites of note. 'open access' on certain areas of Durham Wildlife Trust managed land, although signing of PROWs is erratic and confusing.
Access (potential)	Improved signage, and marking of circuit walk either from Hawthorn village and/or a loop from the Durham Coastal Path
Interpretation (current)	Several panels provided by Durham Wildlife Trust and the Turning the Tide project. All in poor condition through vandalism and weather. DWT panels focus on wildlife and do not provide a wider picture of heritage and landscape.
Interpretation (proposed)	Self guided trail leaflet/website download, replacement interpretation panels in discrete locations to provide holistic landscape history.
Condition Assessment	Generally good and stable, large number of sites requires detailed condition and management needs

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	survey. Lime Kiln at Hawthorn Hive in particular is in need of consolidation.
Proposed conservation (Archaeology)	Consolidate surviving earthworks and buildings, in particular, Lime Kiln at Hawthorn Hive, Sailors Hall and other small 18/19 th century garden buildings, Hawthorn Mill. Several cave sites should be investigated as part of a wider project to enhance knowledge of the prehistory of the coast.
Proposed Conservation (Historic Landscape)	In addition to items noted above under archaeological conservation, the field boundaries and hedgerows of the arable land between Hawthorn Village and the coast are significant landscape features and should be maintained and conserved.
NERRF Research objectives	M1 Mv Liv Lix PM5 MOiii MOvi MT13 L15
Community involvement opportunities	National Trust and Durham Wildlife Trust Volunteers. Residents of Hawthorn Village, Easington Colliery and Village schools.
Identified partners and stakeholders	National trust, Durham Wildlife Trust, Heritage Coast, DCC
Geology Synergies	Several exposed quarries, sea cliffs, and caves
Bio-Diversity Synergies	Significant.

Key Site 16; Castle Eden Dene	
Local Authority	Durham County Council
Grid Ref	NZ (4)42 (5)39
HER Ref	Various, mains sites include D4558 D6759 D165 D12632
Land Ownership	Natural England/Private
Legal Status	National Nature Reserve, Registered Historic Park and Garden (Grade II). Scheduled Ancient Monument (SM28549), Listed Buildings.
Description	Castle Eden provides a fascinating opportunity for landscape scale archaeological survey and interpretation. The Dene itself is the largest of the east-west coastal valleys through the Magnesian Limestone to the coast. As such it holds the potential for protected palaeo-environmental remains pre-dating the last ice-age as well as later material which has included the find of a Neolithic polished stone axe. Castle Eden itself is a village of Anglo-Saxon origin and has produced pagan Anglian burials and grave goods and excavated evidence for timber buildings pre-dating the Norman Conquest. Medieval village remains and close associations with the De Brus family later Kings of Scotland. The surviving landscape is a classic example of 18 th century land reform and design with a planned village and church, parkland, centre piece house (the Castle) and a picturesque landscape in the Dene itself. There are also good examples of 'rural' industrial expansion in the form of the brewery buildings, bleachery etc. Easy access and walking routes from Peterlee new town to the north make the site important for improved public interpretation and engagement in understanding and caring for a complex and fascinating historic landscape.



The Castle (left), a Grade II country house of c.1765 in the Gothick style and set amongst parkland with its own estate village and fashionable 'picturesque' landscape in the shape of Castle Eden Dene (right) seen in a print of c.1832 by Thomas Allom.*



Castle Eden Dene (top right) from an illustration by Thomas Allom of c.1832, visitors can be seen admiring the natural splendours of 'The Grotto' part of several fashionable picturesque walks through the Dene. Management and interpretation of this 'natural' space should take greater account of its status as a Registered Historic Park and garden.

Map of the Castle Eden Dene NNR (below right), this deeply incised valley providing a natural route to and from the coast has significant archaeological potential, in particular perhaps for the preservation of prehistoric remains.

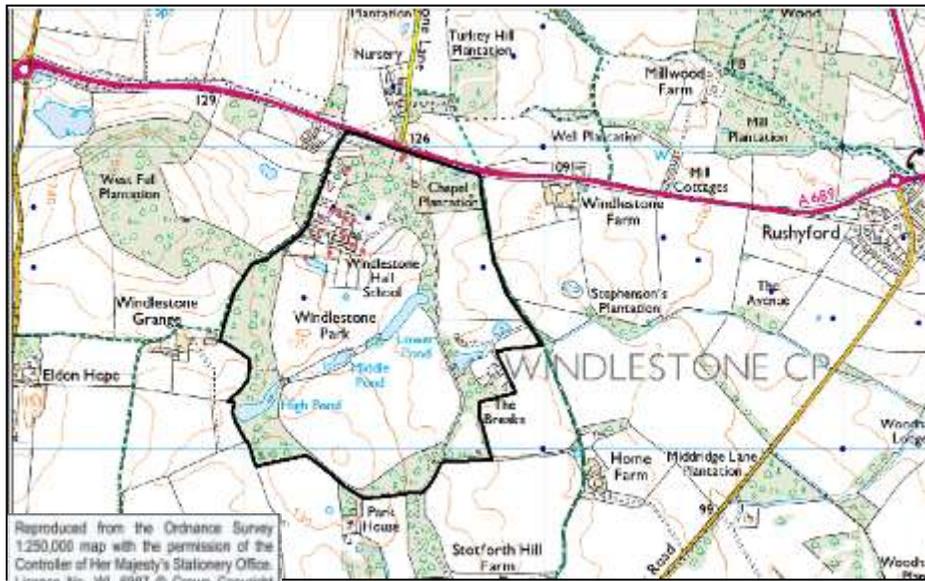
Castle Eden Claw Beaker (below). Made in the Rhineland in the 5th century AD and excavated along with a pagan Anglo-Saxon burial at Castle Eden in 1775, now in the British Museum.



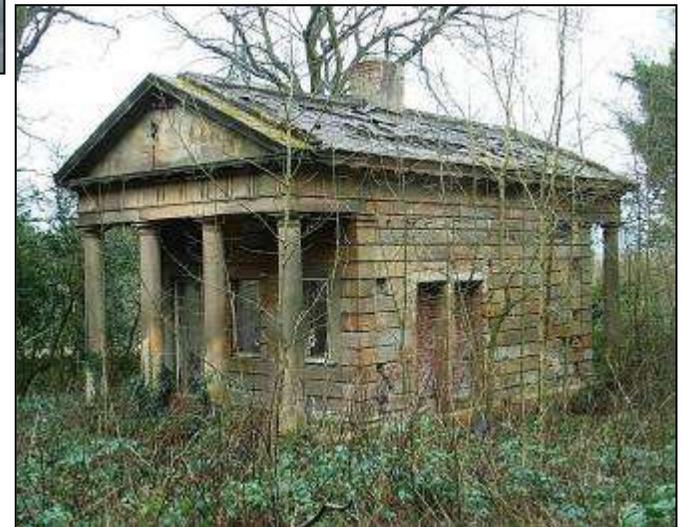
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Proposals	
Access (Current)	Open access to Castle Eden Dene, permissive access along Castle drive, good links to urban area of Peterlee.
Access (potential)	Improved signage from Peterlee, better car parking provision at Castle Eden Village.
Interpretation (current)	Good with several strategically placed panels and a Natural England leaflet (available on line)
Interpretation (proposed)	Enhance existing 'natural environment' interpretation with greater understanding of heritage of the area and 18 th century designed nature of parkland and Dene. Develop information and walking route based on the picturesque as an alternative to existing routes.
Condition Assessment	Various, generally good, historic aspect of dene undervalued.
Proposed conservation (Archaeology)	Undertake detailed archaeological survey of the Dene and Parkland to inform interpretation and management and identify location of high potential for survival of prehistoric archaeological deposits.
Proposed Conservation (Historic Landscape)	Ensure Registered Park and Garden area has a management plan and integrate this with any existing management documents for the NNR.
NERRF Research objectives	M1 Miii Mv Mvi Liv EM3 EMii EMvii PM5 PMii PMviii L18
Community involvement opportunities	Schools in Peterlee, Northumbria Gardens Trust, local residents
Identified partners and stakeholders	Natural England, Northumbria Gardens Trust, English Heritage, DCC
Geology Synergies	Several exposed areas of Magnesian Limestone.
Bio-Diversity Synergies	Considerable

Key Site 17; Windlestone Hall and Park	
Local Authority	Durham County Council
Grid Ref	NZ (4)264 (5)284
HER Ref	Various including D12755 D12657 D12757
Land Ownership	DCC, private
Legal Status	Various listed buildings, Conservation Area, Registered Historic Park and Garden.
Description	A landscape park of just over 83 Hectares in the grand 18 th century tradition of Lancelot 'Capability' Brown of wide open parkland with a series of lakes providing the setting for Windlestone Hall and a series of estate buildings including a fine stable block and classical North Gate Lodge. One of only 2 Registered Parks and Gardens in the Limestone Landscapes rural study area. The Hall has long associations with the Eden family and was the childhood home of Sir Anthony Eden, British Prime Minister at the time of the Suez crisis in 1956. The Hall and parkland are now under split ownership. The Hall has been a Council run school for many years and is currently for sale with an uncertain future although there is an excellent planning brief for the care of the building. Nevertheless the Hall, North Lodge and Stables are all Buildings At Risk, the park land degraded and the lakes partially silted up. Public access is poor with no PROWs providing access to or views of hall and park. The site also has potential for prehistoric crop marks and WWII POW camp remains.



Windlestone Park (above left) showing boundary of Registered Historic Park and Garden. Google Earth Image (c) 2006 (above right), note the silted up central lakes.



Windlestone Hall, 1835 rebuilding by Ignatius Bonomi, for Sir Robert Johnson Eden of 16th century house (above). Grade II listed and following institutional use now empty and with an uncertain future and included on the English Heritage Buildings At Risk Register. Overlooks landscape parkland to the south east from which it is separated by a Ha-Ha.*

Stable Block with ornamental clock tower early 19th century (above right). Grade II listed but empty, unused and suffering vandalism including theft of the clock face. On the English Heritage Buildings At Risk Register.*

North Gate Lodge of 1848 (below right) Grade II listed and now in separate ownership to the Hall. Some restoration work in the 1990's but now in poor condition at 'at risk'.

Proposals	
Access (Current)	Very limited, No PROW.
Access (potential)	New PROW or permissive right of way to allow views of the hall across the park alongside the chain of lakes.
Interpretation (current)	Non

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Interpretation (proposed)	Discrete interpretation panels at either end of proposed path as it crosses parkland.
Condition Assessment	Very poor, several buildings 'at risk' in private ownerships and parkland degraded with no tree re-planting and silting up of lakes.
Proposed conservation (Archaeology)	Detailed study of house and park required to inform future management. Conservation Area Appraisal required.
Proposed Conservation (Historic Landscape)	Restore buildings, re-instate lakes, planting strategy for parkland and specimen trees.
NERRF Research objectives	PM5
Community involvement opportunities	Tree, pond and parkland surveys, building recording.
Identified partners and stakeholders	DCC, English Heritage, Northumbria Gardens Trust, Landowners, NEVAG, AASDN
Geology Synergies	No major themes identified, include buildings in any wider survey of stone, quarries and building materials
Bio-Diversity Synergies	Various including lake restoration, tree surveys and replanting and bat surveys for any buildings requiring conservation work.

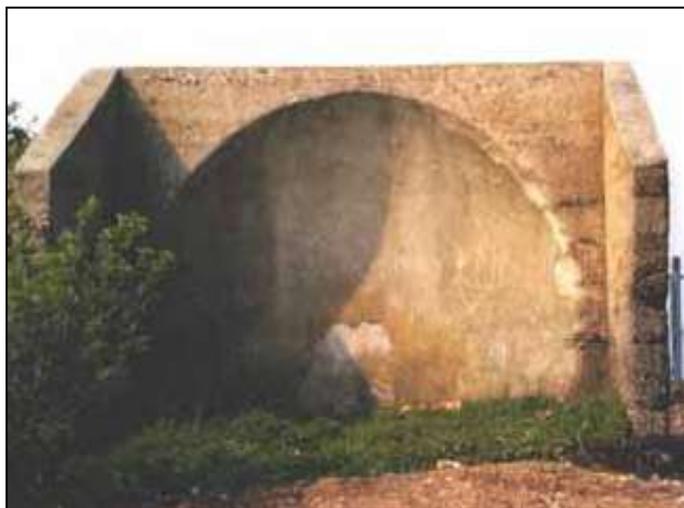
Key Site 18; Fulwell: Windmill/lime kilns/ quarry/ WWI , Acoustical Mirror.	
Local Authority	Sunderland City Council
Grid Ref	NZ (4)385 (5)597
HER Ref	Various including; 4 33 357 1757 4992
Land Ownership	Various including Sunderland City Council.
Legal Status	Listed building, Scheduled Ancient Monument (SM34835), Local Nature Reserve
Description	A former rural area increasingly encroached upon by the 20 th century on the north side of Sunderland with a wide range of historic sites exemplifying the historic character of the Limestone Landscapes area. These range from perhaps the best preserved tower wind mill, to extensive quarries and lime kilns marking the exploitation of the limestone. Later sites of significance include the WWI scheduled acoustic sound mirror designed for the early detection of Zeppelins



(left) Fulwell Mill of 1808 built of local Magnesian Limestone.



(above) Sir Hedworth Williamson Lime Kilns which operated from the 1750's until 1957 taking stone from the adjacent Fulwell quarry and moving burnt lime via wagon ways to the Wear. A listed building recently granted consent for removal of redundant garage buildings to front, and making good.



(left) WWI acoustic mirror for the early detection of Zeppelins.

(right) Fulwell quarry



Proposals	
Access (Current)	Excellent, wind mill open for visitors (limited times), quarries easily accessible and limekilns visible from public road although partially obscured by use as light industrial units.
Access (potential)	Encourage owners of Limekilns to tidy site up, consolidate and allow some form of public access..
Interpretation (current)	Non identified
Interpretation (proposed)	Prepare self guided trail from Fulwell Wind mill over Carley Hill quarries and returning via coast and lime kilns with limited discrete interpretation en-route
Condition Assessment	Generally fair to good, acoustic dish and limekilns will need regular condition assessments and programmes of maintenance with sympathetic/appropriate materials.
Proposed conservation (Archaeology)	Conservation of lime kilns in particular an issue.
Proposed Conservation (Historic Landscape)	Non identified but as with so many areas traditional boundary features of dry stone walls and hedgerows are likely to require attention.
NERRF Research objectives	
Community involvement opportunities	Friends of Fulwell Mill, The Fulwell Society
Identified partners and stakeholders	Sunderland City Council (Conservation Officer), local schools
Geology Synergies	Several, much of site is identified as a Key Site for geological action.
Bio-Diversity Synergies	Many, from Mag Lime grassland to potential bat roots in the lime kilns.

Key Site 19; Cleadon Hills. Windmill, WWII pill boxes, Cleadon Mill chimney	
Local Authority	South Tyneside
Grid Ref	NZ (4)388 (5)633
HER Ref	Various including 973 975 1587 2414 2480 4614 11329
Land Ownership	Public/Private
Legal Status	Listed buildings SNCI, Conservation Area, SSSI
Description	Cleadon Hills and the adjacent water pumping station are a significant landscape feature in the north east of the Limestone Landscape area. The hills are a remaining area of semi-natural Magnesian Limestone grassland surrounded by historic dry stone walls of local stone the centre piece of which is a tower windmill of c1820 also built of local stone and with a rich history of known milling families and later use as an artillery base. The Hills and surrounding area also have further military history to tell with anti-aircraft batteries, pill boxes and trench systems of the 20 th century. The adjacent Cleadon Hill water pumping station and its tall chimney is one of a series of water pumping stations built along the Durham coast in the 19 th century including Ryhope, Fulwell and Cold Hesledon, all of which form an essential and distinctive part of the landscape character of the coastal Magnesian Limestone area. Cleadon Hills has an older history indicated by finds including a Neolithic polished axe



Cleadon Chimney a Grade II listed chimney for water pumping engine built c.1863, now a building at risk.*



Cleadon Chimney and the earlier tower windmill (Grade II listed), form dramatic elements of the historic landscape character of the area visible for many miles around.



Cleadon Pumping Station, an Italianate design of c.1863 by Thomas Hawksley for the Sunderland and South Shields Water Company (above). Grade II and II listed building. The Chimney tower is a building at risk, but the pumping station has been successfully converted to a private house (left).*

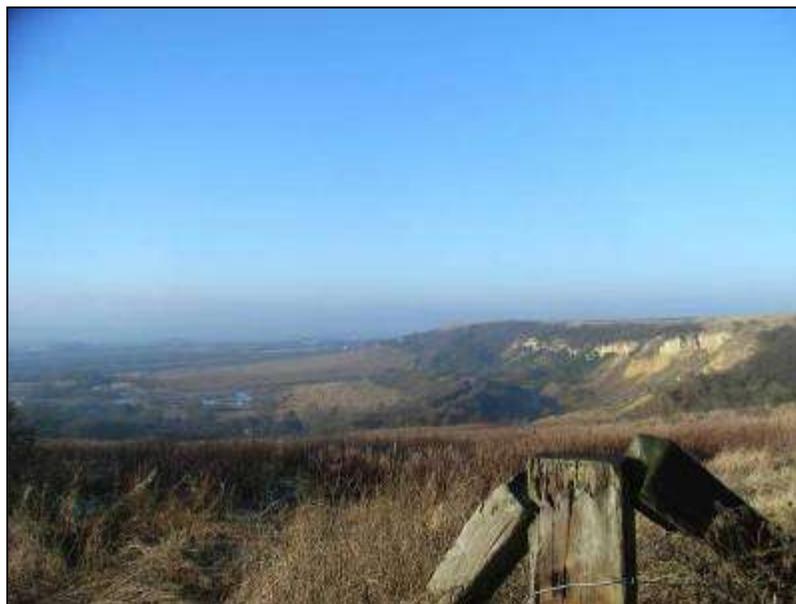
Public art 'the grist of the mill' and Magnesian limestone dry stone boundary walls provide landscape character and a link to the agrarian and milling history of the area.

Proposals	
Access (Current)	Open access to much of the area but the chimney and pumping station are in private occupation but very visible in the landscape.
Access (potential)	Explore possibility of Cleadon Chimney being publically accessible on set open days such as Heritage Open Days.
Interpretation (current)	Site has some interpretation regarding Magnesian Limestone grassland, and public art reflecting the milling history

Limestone Landscapes Historic Environment Audit and Action Plan

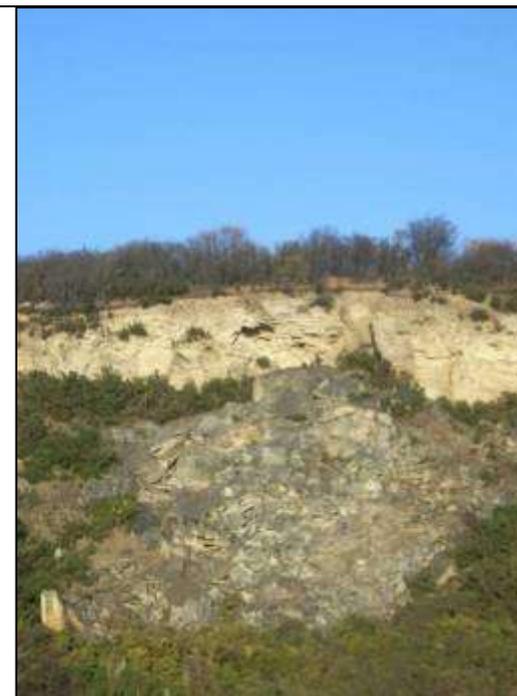
Interpretation (proposed)	The site provides an ideal opportunity to interpret the twins themes of wind power/wind mills and the distinctive water pumping stations of the Durham coast, both essential aspects of the landscape and historic character of the area. This could be contained within the shell of the windmill giving it a purpose. Installation of an internal stair could also provide a viewing platform.
Condition Assessment	Cleadon Windmill and Cleadon Chimney can both be considered buildings at risk and require management plans and confirmed schemes of repair and maintenance
Proposed conservation (Archaeology)	Seek to remove Cleadon Chimney from the Buildings At Risk Register.
Proposed Conservation (Historic Landscape)	Maintain windmill and dry stone wall boundaries
NERRF Research objectives	PMii
Community involvement opportunities	Ideal open 'classroom' for local school groups to explore a variety of themes and fit into curriculum
Identified partners and stakeholders	Local schools, South Tyneside Council
Geology Synergies	Use of local building stone, water extraction is linked to the geology
Bio-Diversity Synergies	Already an SNCI and are of Mag-Lime grassland

Key Site 20; Quarrington Hill: Crowtrees colliery and Cold Knuckles quarry	
Local Authority	Durham County Council
Grid Ref	NZ (4)333 (5)375
HER Ref	Various including; D6866 D6412 D7963
Land Ownership	Durham County Council, Private
Legal Status	Local Nature Reserve
Description	Quarrington Hill sits atop the western escarpment of the Magnesian Limestone and overlooks the site of Crowtrees Colliery, a coal mine dating from around 1800 and placed at the base of the Magnesian Limestone to gain easier access to the underlying coal measures rocks. Despite redevelopment the colliery was closed before 1900 and the mining village which accompanied it struggled on until the 1950's before partial demolition in the category 'D' villages programme. The site was never properly reclaimed and so contains spoil tips, earthworks and structural remains of a 19 th century colliery in-situ. This has railway and steam powered incline connections and is adjacent to the Cold Knuckles Quarry. A recent HLF funded community archaeology project has set the seeds for further investigation and interpretation.



(left) Quarrington Hill, looking west over the site of the former 19th century Crowtrees Colliery site at the base of the Magnesian Limestone escarpment. Cold Knuckles Quarry is on the left of the picture above which runs the ancient route to Old Quarrington and beyond.

(right) Cold Knuckles quarry face of historic and geological importance



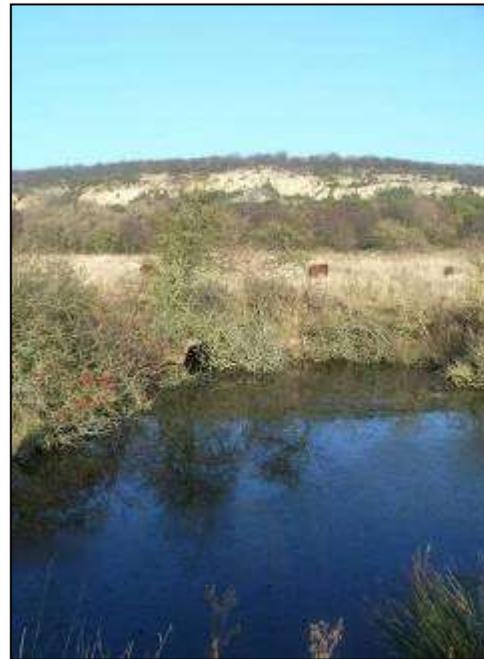
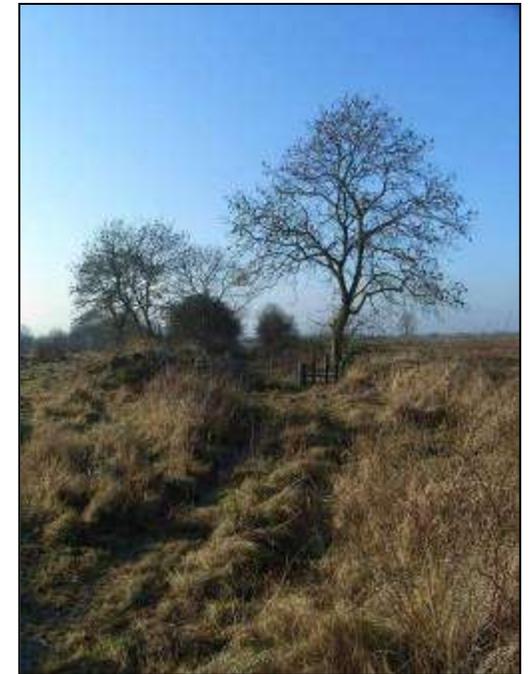


(above left) Crowtrees Colliery 'The Castle', former winding engine base for 19th century colliery.

(below left) Garden and cottage walls of former colliery housing.

(above right) Line of the former Clarence Railway connecting the colliery to the north-east rail network.

(below) Cold Knuckles quarry face and former colliery ponds, note brick culvert



(left) Quarrington Hill, looking west over the site of the former 19th century Crowtrees Colliery site at the base of the Magnesian Limestone escarpment. Cold Knuckles Quarry is on the left of the picture above which runs the ancient route to Old Quarrington and beyond.

(right) Cold Knuckles quarry face of historic and geological importance

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Proposals	
Access (Current)	PROWs and relatively open access within the LNR. Excellent footpath along escarpment at Cold Knuckles is potentially under threat from quarrying.
Access (potential)	Site of winding engine and incline/tunnel could be improved
Interpretation (current)	A few interpretation panels, principally at the top of the hill but sadly single issued focused and slight in content.
Interpretation (proposed)	Self guided trail leaflets, discrete information panels and some form of permanent display in village community centre
Condition Assessment	Former Crowtrees Colliery site largely overgrown with scrubby hawthorn, engine winding platform require some consolidation, former colliery ponds are connected with vaulted culverts condition unknown, Cold Knuckles quarried escarpment under threat from future quarrying.
Proposed conservation (Archaeology)	Condition assessment on former coal mining and railway structures. Remove scrubby hawthorn from important areas following completion of HLF funded survey currently underway
Proposed Conservation (Historic Landscape)	Preserve 'ancient' footpath along Cold Knuckles ridge between Old Quarrington and Quarrington Hill. Maintain lines of former railways. Maintain former colliery ponds. On completion of current archaeological survey consider integrated management plan for LNR to take in historic, bio and geo diversity issues.
NERRF Research objectives	
Community involvement opportunities	Crowtrees Heritage Group
Identified partners and stakeholders	DCC, Quarrington Quarry, Crowtrees Heritage Group
Geology Synergies	Many; story of deep coal mining/underlying coal measures, Cold Knuckles seen as a Key Geo-diversity site.
Bio-Diversity Synergies	LNR

Key Site 21; Haswell Plough Engine House & former colliery	
Local Authority	Durham County Council
Grid Ref	NZ (5)42246 (4)37383
HER Ref	D838 (Colliery pumping engine house), D6617 (Haswell Colliery Township) D6625 D6626 (Colliery slag heaps)
Land Ownership	Various
Legal Status	Scheduled Ancient Monument (SM30930)
Description	Coal mining at Haswell began in 1831 when the Haswell Coal Company, after failed sinkings elsewhere in the area, bought the rights to a neighbouring field from the South Hetton Coal Company. Success soon followed and, with the establishment of two separate pitheads, the first coal shipments took place in 1835. In 1844, however, disaster befell the colliery when an ignition of fire-damp claimed the lives of 95 men and boys. The colliery continued to be productive throughout much of the century until closure in 1896. The surrounding colliery site has been landscaped and the monument, known locally as the Haswell Arch, stands isolated as a memorial to the 1844 disaster. The scheduled monument includes the remains of the beam pumping engine house of c.1830- 1840, a rare survival within the North East Coalfield. Although landscaped the surrounding area still contains slag heaps, former tram and railways and the site of Haswell Colliery village a so called Category 'D' village condemned and demolished in the 1950's



Lost in a sea of grass without context.



Monumental use of Magnesian Limestone.



Memorial to the 1844 pit disaster

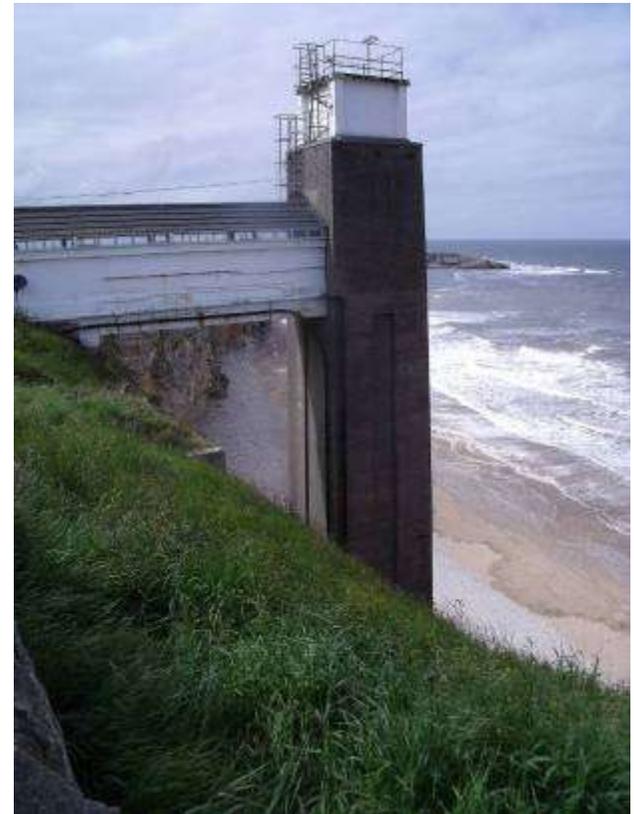
Limestone Landscapes Historic Environment Audit and Action Plan

Proposals	
Access (Current)	Parking area with picnic tables in front of the engine house which is secure behind a metal fence. Intellectually the site sits in fenced off isolation from its surroundings like a museum piece.
Access (potential)	Through interpretation and use of existing roads and PROWs provide access and understanding to the context of the monument
Interpretation (current)	Mine disaster memorial.
Interpretation (proposed)	Walking trail from existing car park at the Engine House to provide a better understanding of the former 19 th century colliery landscape. Interpretation to pay particular attention to the geological difficulties in exploiting the East Durham Coalfield until the 19 th century and the technology employed. Improve signage to site from main road and visibility within the landscape.
Condition Assessment	Good (engine house)
Proposed conservation (Archaeology)	Confirm ownership and on-going maintenance arrangements to safeguard this iconic structure.
Proposed Conservation (Historic Landscape)	Undertake survey of surrounding area 'the setting' of the monument and reintegrate it back into its surroundings.
NERRF Research objectives	
Community involvement opportunities	Involve Haswell primary school, Haswell Local History Society.
Identified partners and stakeholders	-
Geology Synergies	Interpretation will explore issues of Permian and Carboniferous rocks and coal extraction.
Bio-Diversity Synergies	Surrounding lawn like grass area could be managed more sympathetically for Mag Lime grassland.

Key Site 22; Marsden; quarrying, limekilns, lighthouses, maritime.	
Local Authority	South Tyneside Council
Grid Ref	NZ (4)404 (5)644
HER Ref	Various including; 2489 6824 11723
Land Ownership	Various including National Trust, Local Authority and Private
Legal Status	Scheduled Ancient Monument (SM TW4), Listed Buildings, SSSI.
Description	In a small area of coast there are a significant number of heritage sites which tell a complex story of exploitation of the Magnesian Limestone and coastal resources. These together with identified geological and bio-diversity interest present a site characteristic of the Limestone Landscapes area with established access and visitor facilities which some additional linkages will enhance visitor and community awareness of the special nature of the area. In particular the 19 th century industrial scale limekilns (a Building At Risk), quarries, the 'lost' sites of the Marsden 'rattler' coastal railway and colliery village, The National Trust Souter Lighthouse, Marsden grotto and rock and various WWII coastal defence sites, make the area of high importance.



Marsden Limekilns (left), industrial scale exploitation of the Magnesian limestone from around 1870 to the 1960's. Souter Lighthouse (above) built in 1871 and the first in the world to be lit by AC electricity, now owned by the National trust



Marsden Rock, Cliff lift and Grotto (above) a well known and well visited site with a rich folklore heritage of smuggling and other maritime activity. The Grotto provides a singular opportunity for members of the public to enter a limestone cave safely and see heritage and geology at first hand (possibly while clutching a drink!)

Good existing holistic interpretation regarding geo-diversity, bio-diversity and industrial heritage (right).



Limestone Landscapes Historic Environment Audit and Action Plan

Proposals	
Access (Current)	Good, but no direct access to the lime kilns
Access (potential)	Following repair works, provide greater access to the lime kilns
Interpretation (current)	Good, several panels and significant material at Souter lighthouse.
Interpretation (proposed)	Improvements could be made to provide circular walks with a more holistic interpretation of the landscape.
Condition Assessment	Most recorded sites generally good, but lime kilns are a Building At Risk
Proposed conservation (Archaeology)	Conserve and consolidate lime kilns. Encourage NT to have detailed management strategy for all archaeological sites on the coastal estate.
Proposed Conservation (Historic Landscape)	Non identified although large mown grass areas could be more sympathetically managed as Mag-Lime grassland.
NERRF Research objectives	MO5 MT13 MOvii
Community involvement opportunities	NT Volunteers
Identified partners and stakeholders	NT, South Tyneside Council, The Grotto Restaurant.
Geology Synergies	Several, identified as Geology Key Site
Bio-Diversity Synergies	Cliff flora and quarry nature reserve. Possible bat activity within old lime kilns.

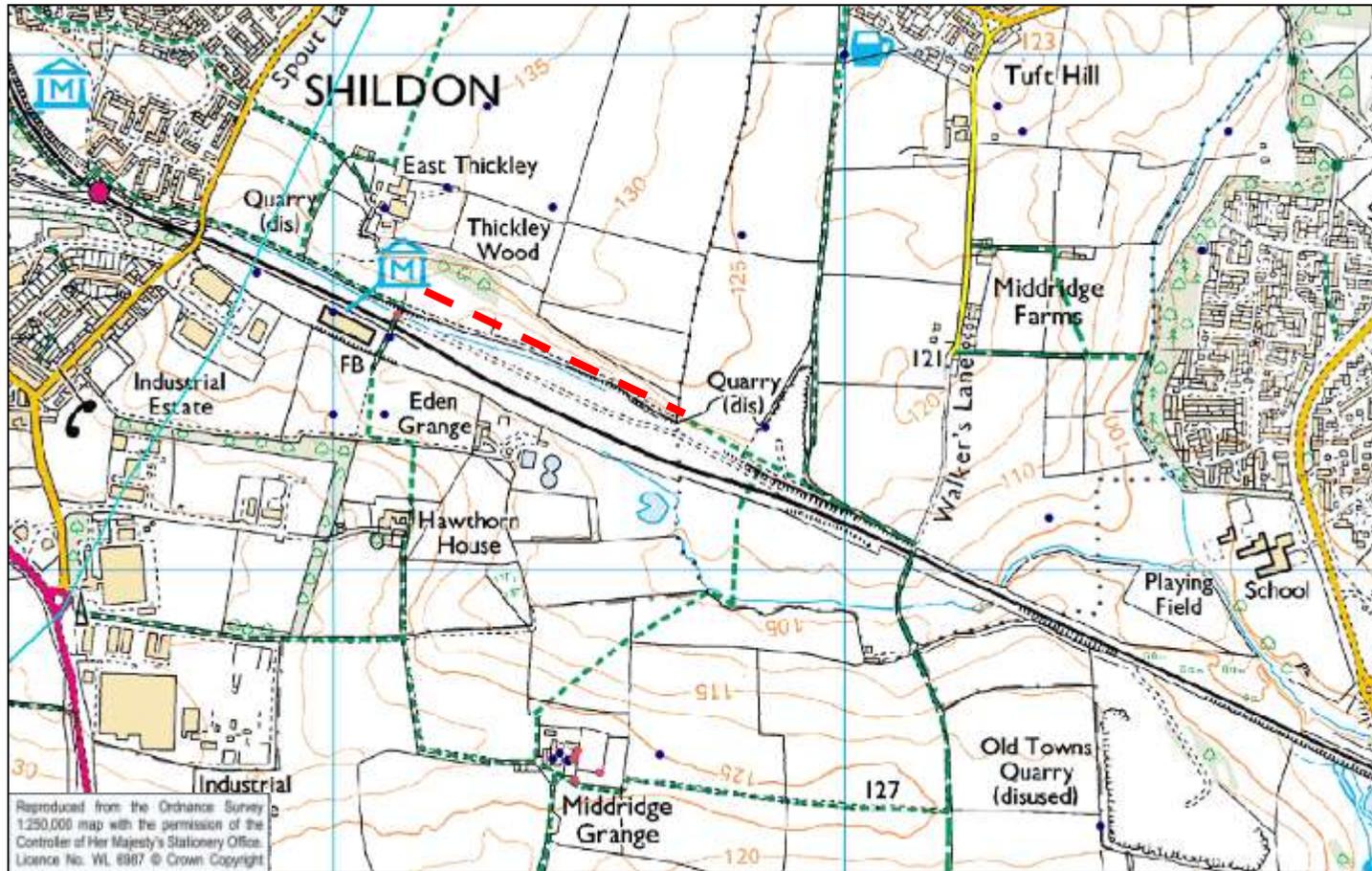
Key Site 23; Middridge/Shildon. (railway heritage, quarrying, medieval village and grange)	
Local Authority	Durham County Council/Darlington Borough Council
Grid Ref	NZ (4)244 (5)253
HER Ref	Various including; D4888 D6881 D9014 D12701 D15753
Land Ownership	Various
Legal Status	Listed Buildings, SSSI
Description	The National Railway Museum 'Locomotion' makes much of Shildon's pioneering role in world railway history and the origins of the Stockton & Darlington Railway of 1825, as the world's first public passenger railway. The surrounding area is however rich in other heritage sites and in nearby Middridge quarry an identified key geology site. By the addition of a short distance of PROW/or permissive path an excellent circular walk can be created providing better access to the quarry and wider landscape.



Middridge Quarry(above left)



Locomotion, the National Rail Museum at Shildon (above right).



Midddridge Quarry a key geology site and the NMR 'Locomotion' can be connected and a good circular path via Midddridge Grange created by the addition of a short length of footpath (shown in dashed red.) This can be used to tell a wider story of landscape change, mineral exploitation and the S&DR the world's first passenger railway.

Proposals	
Access (Current)	Good access to railway heritage in Sildon and around NMR, good footpaths to Midddridge Grange, but no direct footpath alongside route of S&DR between NMR and Midddridge Quarry
Access (potential)	Create PROW or permissive path along north side of rail line between NMR and Midddridge Quarry allowing circular walking route over railway bridge at Walkers Lane, returning via Midddridge Grange to raise awareness of connections between railway/quarry and the S&DR within the broader historic landscape..

Limestone Landscapes Historic Environment Audit and Action Plan

Interpretation (current)	Lots at NMR, but little relating to S&DR and wider landscape to the east
Interpretation (proposed)	Increased Limestone Landscape themed display at Locomotion incorporating geology and S&DR history about the wider landscape. Circular self guided walk leaflet.
Condition Assessment	Good but requires more detailed survey.
Proposed conservation (Archaeology)	Identification required of any existing S&DR boundary markers and other railway features along proposed new footpath route.
Proposed Conservation (Historic Landscape)	Historic hedgerows around Middridge Grange could be enhanced and restored.
NERRF Research objectives	PMiii MO4 MOII
Community involvement opportunities	Volunteers at Locomotion, NEVAG members regarding any interpretation of Middridge Grange, local schools
Identified partners and stakeholders	DCC, National Railway Museum
Geology Synergies	Excellent, Middridge Quarry an identified key site
Bio-Diversity Synergies	Yes

Key Site 24; Penshaw Hill; a celebration of radicalism and worms	
Local Authority	Sunderland City Council
Grid Ref	NZ (4)356 (5)540
HER Ref	Various including 3094 10882 3091
Land Ownership	National Trust
Legal Status	Listed Building
Description	Monument built in 1842 to the memory of John George Lambton, Earl of Durham eminent Whig (liberal) politician who after representing the county of Durham in parliament for fifteen years was raised to the peerage and subsequently held the offices of lord privy seal, ambassador extraordinary and minister at the court of St. Petersburg and governor-general of Canada. He died on the 28th of July 1840 aged 49. Due to his liberal politics he was often referred to as 'Radical Jack'. The hill has a much older history being one of the main settings for the medieval legend of the Lambton Worm (dragon), and extensively quarried for many centuries. Visitors today are provided with little of this information and most see it as an odd folly with good views when it could offer so much more than being one of the major landscape features of the Limestone Landscapes area.



Penshaw Hill, capped by the monument to Radical Jack Lambton designed by John and Benjamin Green and built in the style of the Theseum in Athens by Thomas Pratt a Sunderland builder funded by public subscription.



Penshaw Hill, has captured the popular imagination in many ways; large amounts of old worked stone (left) and encircling hollow ways (below, copyright Google 2006) have produced theories or a number of web sites and in local imagination of the hill being an Iron-Age hill fort. Although not impossible these are most likely waste material from a major rebuilding of the west end in 1979 and trackways for medieval and post-medieval quarries respectively. The hill is also that which the Lambton Worm wrapped itself around 10 times and features as a symbol of Wearside on the top right of the Sunderland Football Club badge. (below left)



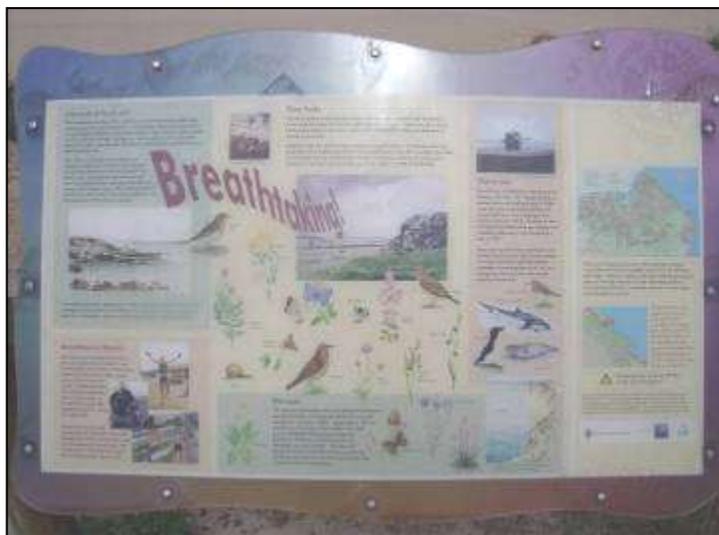
Limestone Landscapes Historic Environment Audit and Action Plan

Proposals	
Access (Current)	Largely open access to the hill, but footpath and visitors are drawn to the monument itself on a direct desire line.
Access (potential)	Additional 'steered' access to other historic features and utilisation of old quarry tracks. Steps to provide easier access to the raised floor of Penshaw monument. Consider repair and safely re-opening the hidden staircase in one of the columns to allow access to the roof top walk for special events such as Heritage Open Days.(roof top walk closed in 1926 following a fatal accident)
Interpretation (current)	Limited on site to NT cast metal welcome board and original inscription.
Interpretation (proposed)	More information to explore quarrying history of the hill, who was radical Jack Lambton? folklore story of the Lambton Worm.
Condition Assessment	Generally in good condition, some minor vandalism, NT should be encouraged to ensure listed building has regular inspections and maintenance programme.
Proposed conservation (Archaeology)	Much 'fringe' popular speculation that the hill is an Iron-Age hillfort, but this is likely to be misinterpretation of the encircling quarry tracks and quarries. Nevertheless small piece of investigative work to look into this would be academically worthwhile and raise public interest.
Proposed Conservation (Historic Landscape)	Maintenance and enhancement of historic hedgerows and quarry tracks required.
NERRF Research objectives	I2 I3 Iii
Community involvement opportunities	NT regional volunteer group, local schools.
Identified partners and stakeholders	National Trust, Sunderland FC.
Geology Synergies	Prominent hill top of western Mag Lime escarpment, evidence for early quarrying, petrological examination of the stone from which the monument is made
Bio-Diversity Synergies	Area of Mag lime grassland

Key Site 25; Coastal Defences; Trow Point and Frenchman's Point Battery	
Local Authority	South Tyneside Council
Grid Ref	NZ (4)356 (5)540
HER Ref	Various including; 832 833 870 909
Land Ownership	Various including National Trust and Local Authority
Legal Status	Listed Building
Description	A rocky promontory with the site of an excavated Bronze-Age burial mound, finds of prehistoric lint and Roman coins. More latterly the site of Hiram Maxim's experimental 'floating platform', a cylinder stood in water, which rose when gas was pumped in above the water, and fell when the gas was released. A standard naval gun was mounted on top of the cylinder and would be concealed while being loaded, and then rise out of the pit to fire. Constructed 1886-7 for the Inspector General of Fortifications for experimental trials, but proved to be too slow and was abandoned. The machinery and ironwork was removed and the pit filled but a replica has been constructed. Nearby are bases for WWII searchlights.



Trow Point; an evocative site on Magnesian Limestone cliffs, once the site of a prehistoric burial mound excavated in 1873 and possessing a range of military coastal defence sites including the listed Maxim Floating Gun of 1886-7 (above) designed to descend from view during reloading.



(left) good interpretation explaining a variety of issues.

(right) WWII searchlight bases now being undermined by nature and human activity of lighting fires.



Proposals	
Access (Current)	Open access
Access (potential)	maintain
Interpretation (current)	Some at adjacent car park, recent and well balanced between different subjects
Interpretation (proposed)	Specific information on military remains adjacent to Floating Gun
Condition Assessment	Maxim Floating Gun is suffering from graffiti, WWII searchlight bases are being undermined by weather and human action
Proposed conservation (Archaeology)	Remove graffiti, repair erosion scars.
Proposed Conservation (Historic Landscape)	-
NERRF Research objectives	lix F6
Community involvement opportunities	Use by local schools as part of exploring 20 th century WW home front.
Identified partners and stakeholders	South Tyneside Council
Geology Synergies	Good sea cliff exposures, backs onto partially in-filled quarries.
Bio-Diversity Synergies	Areas of Mag Lime grassland

8.2 Site Interpretation & Proposals

Interpretation and access to the historic environment is a key objective of the Limestone Landscapes Partnership and although this obviously needs to build on existing material and initiatives a more integrated approach where history, bio-diversity and geo-diversity are all presented together is to be advocated in future.

Interpretation is provided by a large number of different bodies and individuals through leaflets, panels, websites and publications. In addition guided walk programmes such as that offered by Durham County Council provide a more personalised approach. As noted elsewhere in this report, access and interpretation of Historic Environment Record information for the area is provided by DCC Archaeology Section, Tyne & Wear Specialist Conservation Team and Tees Archaeology. Each has a good website and both the Durham and Tyne& Wear HERs are searchable on line.

The following section provides a brief and non comprehensive summary of existing heritage interpretation across the study area and concludes with some ideas and proposals. More specific details are noted where appropriate under the section on 25 Key sites but the subject would warrant a study in its own right.

Heritage Coast leaflets

The Heritage Coast Partnership covers the coastline of County Durham, city of Sunderland and the Borough of Hartlepool. It has an excellent website with a series of downloadable leaflets in PDF format which covers a number of topics, in particular on the geology of the area.

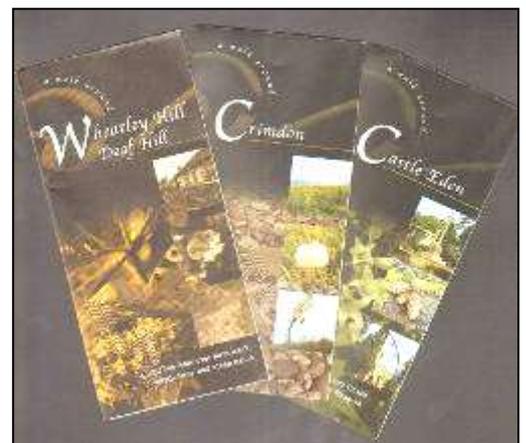


Easington Colliery

On the reclaimed Easington Colliery site, the South Shaft is represented along the footpath from the pit cage to the car park. Walking along the footpath you will get some idea of the depth of the shaft. The coal seams are marked in the ground, as are some of the intriguing names of other seams. This leaflet complements the geological timeline on the site. It shows all of the strata which the South Shaft went through and gives some background information. It also explains some of the intriguing names given by miners and mining engineers to some of the rock types.

a walk around... leaflets

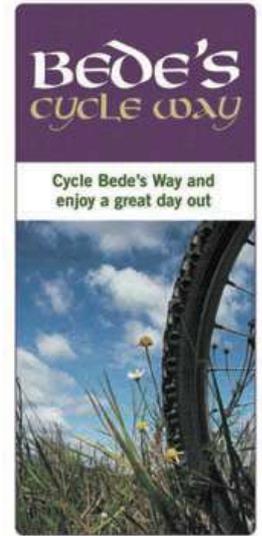
An excellent series of well produced and attractive self guided walk leaflets with maps and information covering 13 areas/villages. Produced by Easington District Council with local community input and widely distributed, their future following local government reform is unclear. While they do provide an excellent balance of historic, landscape and geological information, there are a number of factual errors and missed opportunities to provide extra information and identify other sites of value and interest to walkers.



Bede Way Walk and Cycleway

<http://www.sunderland.gov.uk/Cycling/circular-route-1-timberland.asp>

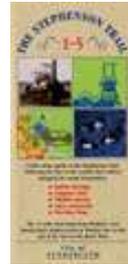
Cycling in Sunderland - Circular Route 1 Hetton-Warden Law Timberland Trail. Takes in many historic features including wagon ways, Copt Hill/Warden Law, but has no interpretation of heritage or landscape specifically provided.



The Stephenson Trail



The Stephenson Trail is marked by these excellent and robust cast iron way markers.



A full colour guide to the Stephenson Trail following the line of the world's first railway designed for steam locomotives. The 17.7 km/ 11 mile trail leads from Elemore, over Sunderland's highest point at Warden Law, to the end of the line on the River Wear. This pack contains individual guides on:-Elemore to Hetton Lyons-Hetton Lyons to Copt Hill, -Copt Hill to Silksworth, -Silksworth to the River Wear. Published in 1994 but now apparently out of print

The Coalfield Way

A full colour guide to the industrial and natural heritage around Hetton-le-Hole. A 16 km/10 mile circular walk covering: Hetton Lyons to Rainton Bridge, Joe's Pond, East Rainton to High Moorsley, High Moorsley to Hetton Lyons, Date of Publication: 1996



Crowtrees Nature Reserve

Typical of many Glass Reinforced Plastic information panels seen at several locations across the area. Can be exceptionally good but often are poorly designed, focus on only one aspect of the landscape and poorly positioned.



Seaham Headland and Seafront.

An interesting interpretation scheme combining public art and information running along the seafront from Seaham Harbour to Seaham village. Largely focused on history and geology but having been in place for around 10 years appears robust and has more of a presence in a semi-urban area than just an information panel. Public art inspired by the area's heritage and environment can be found at other locations such as 'grist to the mill' close to the windmill at Cleadon Hills.



Bishop Middleham

Largely conventional interpretation through GRP information panels but well designed and providing an integrated trail with a number of boards tackling different aspects of the village's history and environment. Good use of maps, historic photos and reconstruction drawings.



Dalden Tower



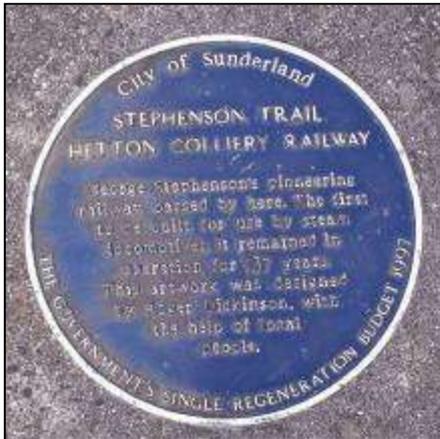
Ludworth Tower



Dalden Tower, a site in dire need of interpretation and care but having 'lost' earlier panels through vandalism. Ludworth currently has two different phases and styles of interpretation but both describe it as an isolated site not part of a wider landscape.

Sunderland Blue Plaques

Sunderland City Council have used cast metal Blue Plaques to mark certain buildings and notable individuals. The Blue Plaque device originated in London over a century ago and has in various forms been used across the country. It has the advantage of robust, relatively maintenance free construction and a high degree of public recognition.



Wheatley Hill

Wheatley Hill provides an excellent example of local initiative in celebrating their local heritage. Not only is there a thriving local heritage group, but it has a visitor centre which keeps in use and repair a distinctive local historic building. Use of conventional GRP boards and signing of notable heritage sites such as Peter Lee's grave together with care of the village War memorial all clearly demonstrate pride and involvement in local heritage and environment.



Interpretation: ideas and proposals.

The interpretation and the presentation of the historic environment of the Limestone Landscapes area needs to be approached and delivered through a wide variety of mediums. Key to these is that it needs to be in partnership with communities rather than parachuted in by the well meaning intent of public bodies, NGOs and charities. Some form of easily accessible, web-based central repository of source of material should be developed together with well researched popular publications to encourage the idea of the Limestone Landscapes as a coherent area with common shared themes of geology, history and ecology. In particular the following points are raised as well as more specific suggestions under the section on 25 Key Sites.

- Any schemes of interpretation developed with the local community will have the added benefits of providing education and inclusion while hopefully encouraging care and reduced vandalism of any installed on-site materials. Local communities may well possess additional information and in-sights which will provide added value to any interpretation.
- Although it is certainly desirable to promote good standards, a 'house' Limestone Landscapes style is to be avoided, inclusion of the logo on material should be sufficient to raise profile and appear supportive.
- The Limestone Landscapes Partnership should publish and promote a popular, well researched book on the history and heritage of the area to raise awareness and interest in both heritage and the 'idea' of the Limestone Landscapes.
- Working with communities and the LL wider partnership a series of self-guided walks leaflets should be produced and promoted incorporating and updating those which already exist (see earlier in this section). These should be made available in printed format but also crucially as downloadable PDFs from a Limestone Landscapes website and/or Heritage Coast and local authorities.
- Way route marking and selective discrete interpretation boards should be designed and installed to enhance the self guided walks and 25 key sites identified elsewhere in this document. Materials for these should bear in mind longevity and maintenance and learn from robust examples such as the Stephenson Trail.
- All interpretation should provide a wider understanding of any site in terms of its geology, bio-diversity and its position in the wider landscape not just as an isolated, single issue feature.

9.0 Conservation & Management Issues

Many of the conservation and management issues facing the historic environment of the Limestone Landscape area are common to significant areas of northern England; others such as marine erosion of the soft Magnesian Limestone are dramatically peculiar to the area itself. Comments regarding the condition of and specific threats to the identified 25 Key sites are contained in section 8.0.

9.1 Major Issues

- **Coastal erosion:** The Durham coastline has been steadily eroding since the last ice-age and some estimates have concluded that perhaps 500metres of land have been lost to the sea over the last 10,000 years and 200 metres plus since Roman times. This obviously varies from place to place and has been in part halted by the dumping of huge amounts of coal waste throughout the 20th century which acted as a protective barrier. The need to offer protection to any specific coastal site has not been identified in this report but the high incidence of prehistoric stone tools along the coast suggests this was an area of intensive use and the need for monitoring work and rescue excavation in future.
- **Arable ploughing:** Continuous arable ploughing using modern deep ploughs and sub soiling is particularly damaging to sub-surface archaeological remains. This is a nationwide problem and not peculiar to the Limestone Landscapes area. Known archaeological sites and those of high potential which have been regularly ploughed should be the focus of rescue work and are ideal opportunities to involve members of the public in field walking/finds collection and work collaboratively with metal detector users. The targeting of such sites needs to be identified through sensitivity mapping of long-term arable activity and archaeological potential drawing on information from HERs and the Portable Antiquities scheme.
- **Agricultural change resulting in plough damage and boundary loss:** apart from on-going and long term arable cultivation, changes in farming practice and economics also present a significant threat to landscape character. The Limestone Landscapes area is particularly rich in pasture fields, many of which contain rig and furrow together with hedgerows and hedge-banks. As farm machinery grows in size and farms become amalgamated the economic pressures to grub out hedges and convert long term pasture to arable is increasing. This is eroding the character of the Limestone Landscapes area but paradoxically may well create in some areas a wide open-field landscape which would have characterised large parts of the area in the 12th to 14th centuries.
- **Woodland planting:** There is a strong drive to plant and enhance significant areas of woodland across the area. The planting of trees is however potentially physically damaging to archaeological sites and also inadvertently to landscape character with new woodland established on land which has been pasture or arable for several hundred years. To ensure tree planting schemes are well thought through, areas identified for new planting schemes should be chosen with two principals in mind. Firstly reference to historic data to identify areas which were historically woodland should be undertaken to identify new planting sites. This would have the dual benefits of maintaining/restoring landscape character and also would take advantage of dormant woodland flora species in the soil to develop a flourishing woodland more quickly. Secondly at the feasibility and planning stages of any new woodland scheme an archaeological assessment should be undertaken by a professional archaeologist to ensure the scheme can be designed without damaging

archaeological remains. Early consideration of such matters will have significant benefits to producing a final integrated scheme and identifying any potential 'hidden' costs for other archaeological works which best practice might well throw up at a later stage.

- **Urban development/encroachment:** The 20th century in particular has seen significant urban growth in the countryside, both with expansion of existing historic settlements and also new town developments such as Peterlee. Such growth is determined by strong socio-economic factors but needs direction to ensure it produces places and communities that people want to live and work in, which possess real local character and distinctiveness. The work of the Limestone Landscapes Partnership can be exceedingly important in this area by providing landscape wide guidance on the correct use of local materials, building techniques and architectural styles married to an understanding of historic settlement pattern and form and the wider rural landscape and its components of field boundary design. Key threats to the project area are inappropriate new housing design, the loss of traditional buildings and the urbanisation of high quality rural landscapes. The area to the south of Seaham Harbour and north of Easington colliery could be singled out as under particular threat as possibly the highest quality remaining coastal strip of Magnesian Limestone, but already under threat from inappropriate industrial buildings on its northern fringe and likely to be subject to further encroachment south of the A182 and north of Kinley Hill.
- **Metal detecting:** the increasing popularity and sophistication of metal detectors over the last 20 years is both a boon and a bane to archaeological conservation. On the one hand it has brought a whole group of people into contact with history and archaeology and salvaged many artefacts which otherwise would have been destroyed by repeated plough activity such as the 6th century pagan Anglian cemetery at Andrews Hill south of Easington. On the other hand it has led to damage of many previously undisturbed archaeological sites where digging out of finds has irretrievably damaged the context of those artefacts below the ground and so removed much of their meaning; a bit like retrieving a beautiful silver spoon but having smashed apart the mansion house to get to it. The way forward is undoubtedly closer links between detectorists, archaeologists, communities and landowners to make sure each works in a responsible fashion and together as often as possible to the education and benefit of all. To that end the work of the Portable Antiquities Scheme and the finds liaison officer is key.
- **Loss/replacement of traditional buildings:** The historic character of an area is to a significant extent defined by its historic buildings. These don't necessarily have to be exceptional or listed, often the seemingly everyday is of considerable value to making somewhere unique and distinctive. Although there are undoubtedly good quality buildings of the second half of the 20th century (and Peterlee and Washington new towns are distinctive in their own ways), the buildings of the Limestone Landscapes can be very crudely placed into two groups. Firstly buildings pre-dating around 1830 before the advent of railways, the expansion of deep coal mining and the introduction of 'foreign' material. These are largely found in historic villages, are of local stone and lime mortar and often are rendered. After c.1830 buildings often use imported Welsh slate, and brick either imported or as a by-product of the coal industry. These are often in 'new' settlements specifically set up to house colliery workers and forming an additional layer of settlement across the landscape which in addition to worker's housing is also likely to possess aged miners houses, working men's clubs, non conformist chapels, institutes, schools and Co-Ops. Accompanying both these phases of settlement are scattered country estates and farms which

show a variety of styles and periods. While this is a gross over simplification it serves to illustrate the sorts of buildings which help define local character and distinctiveness and are under threat. These in particular include many buildings no longer thought fit for purpose such as traditional farm buildings not capable of admitting modern tractors and machinery, Victorian schools which instead of being updated are abandoned for new build, and former miner's terraced housing often perceived as too small or old fashioned for modern life and so liable to be demolished and replaced. Recent examples have included the protracted fight to save Easington Colliery School from demolition (successful), and the loss of aged miners homes in Sherburn conservation area even after the conservation area appraisal noted them as contributing to the quality of the village. There is strong evidence and good examples of the benefits of conversion, sensitive upgrading and extension of Victorian and older buildings which ultimately may have a lower carbon footprint than new build, be more easily repairable and contribute in ways new build never can to historic character and community spirit.

- **Loss/replacement of traditional features;** while the loss of buildings themselves is of great concern and often makes a dramatic and instant difference following a demolition, there is also a more insidious loss of character and distinctiveness through replacement of windows, doors, rain water goods etc. The loss of wooden sash windows or cast iron gutters to be replaced by uPVC and plastic can radically alter the appearance and character of individual buildings, streets or whole settlements. In the rural environment much of the area is defined by its field boundaries and preserved areas of rig and furrow cultivation now under pasture. Lack of maintenance and gradual erosion of these will have a detrimental effect on landscape character as will new build roads which often cut through the historic landscape rather than working with its form.
- **Inappropriate or uninformed new build;** large often nationally based house builders often provide housing schemes designed in a context vacuum which could be placed anywhere in the country. Such schemes are often also located badly in relation to the form of the historic environment and severely erode landscape character. With some little thought and guidance regarding materials, design and plan form, new build can often be accommodated successfully and enhance local character. In addition to housing, modern industrial estates and large buildings such as shopping centres are often of the large steel framed shed design, cheap, efficient and utterly devoid of any architectural merit and local distinctiveness. Such buildings are often necessities of modern life but should be located and designed very carefully otherwise there will be missed opportunities to enhance the landscape quality of the area, for instance the over scale Byron shopping centre in very modern materials now looms over the Georgian listed harbour at Seaham for which a conservation management plan was commissioned. Both of these are needed by the town but only one will be a long term asset.

9.2 Conservation areas

The area contains 35 currently designated conservation areas, several of which are within the major urban areas and so excluded from this study.¹¹⁰ Aside from the protection afforded to listed buildings the designation of a conservation area is intended to provide protection for non-listed structures, trees, street furniture (lamps, seats etc.) and to prevent demolition without appropriate consents. The higher level of protection is meant to provide additional profile for planning officers and members when deciding on

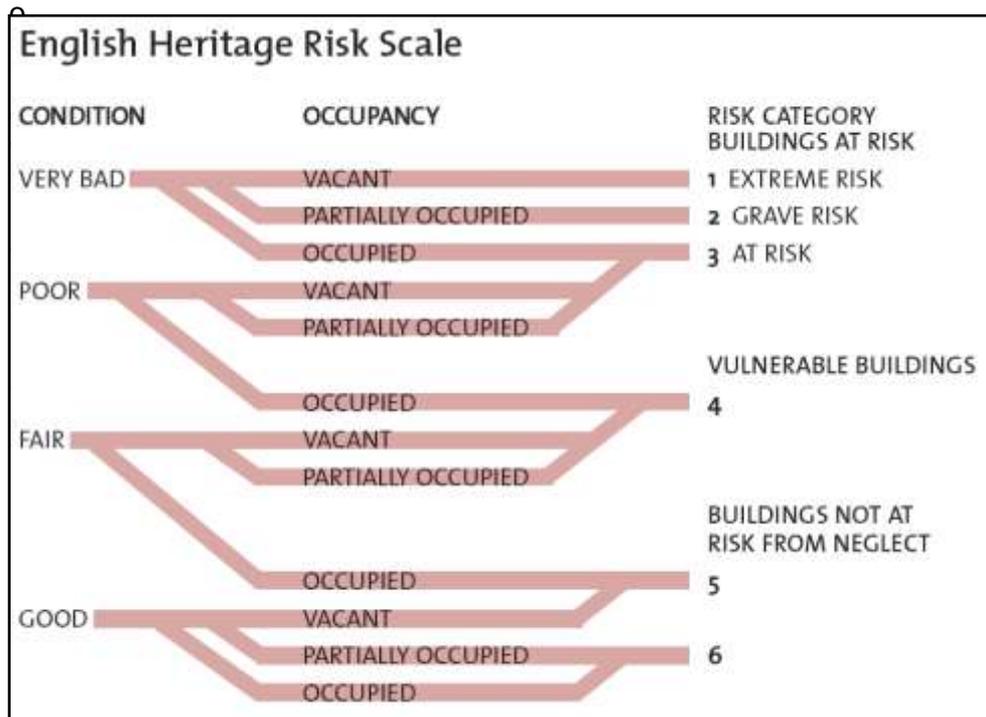
¹¹⁰ See Annex 4 for details

new development to ensure it complements the valued character of the conservation area.

Planning authorities are meant to produce conservation area character appraisals (CACA) for each area together with management plans so that it is clear to both planning authorities and public alike just what are the essential elements of value which we are seeking to conserve. This may involve building materials, windows and doors, historic green spaces and plan form and architectural styles. Should additional protection be required then planning authorities can also issue Article 4 (2) directives which remove certain permitted development rights for which planning permission is not usually required on un-listed buildings such as changing windows, often from traditional wooden sash to uPVC leading to the loss of local historic character. Several conservation areas have no CACA. A full list of conservation areas including a note of which are in urban areas and so excluded from this study and the status of any appraisals is contained at Appendix 3.

9.3 **Buildings and Heritage at Risk.**

Since 1998 English Heritage has been maintaining a register of Buildings at Risk (BAR), not to identify and shame property owners who do not care for their historic buildings, but to raise the profile of such structures and prioritise action on the most serious cases. The BAR register has previously only included Grade I and II* buildings and scheduled monuments, the majority of listed buildings at Grade II and other heritage designations such as conservation areas, historic parks & gardens and historic battlefield sites have not been included. The status of being ‘at risk’ does not necessarily mean a building has structural problems but can also reflect disuse or an uncertain future which requires thought and action. The procedure and categories of ‘at risk’ are described in the f



BARs are graded from A to F as follows:

A: Immediate risk of further rapid deterioration or loss of fabric: no solution agreed.

- B: Immediate risk of further rapid deterioration or loss of fabric: solution agreed but not yet implemented.
- C: Slow decay; no solution agreed.
- D: Slow decay; solution agreed but not yet implemented.
- E: Under repair or in fair to good repair, but no user identified; or under threat of vacancy with no obvious new user (applicable only to buildings capable of beneficial use).
- F: Repair scheme in progress and (where applicable) end use or user identified; functionally redundant buildings with new use agreed but not yet implemented.

In July 2008 English Heritage widened the scope of BAR by production of the first edition of an annual Heritage at Risk register to include:

- Scheduled monuments
- Registered historic parks and gardens
- Registered battlefields

This is currently being further widened to include a study of conservation areas at risk in partnership with local amenity groups and communities.

No data was available from these additional studies at the time of writing this report

9.2.1 Heritage at Risk in the Limestone Landscapes Project Area.

County Durham

SITE NAME: Clock Tower, Windlestone Hall, Windlestone PRIORITY: E (E)
DESIGNATION: Listed Grade II*, CA, RPG Grade II
CONDITION: Poor
OCCUPANCY: Not applicable
OWNERSHIP: Local authority
Early C19 clock tower and stables gateway by Ignatius Bonomi. Cupola repaired with an English Heritage grant in 1989, but stonework repairs now needed. The Hall was used as a school but was put on the market in 2006. The clock face was stolen.



SITE NAME: Windlestone Hall, Windlestone PRIORITY: C (New entry)
DESIGNATION: Listed Grade II*, CA, RPG Grade II
CONDITION: Poor
OCCUPANCY: Vacant
OWNERSHIP: Local authority
Large house, c.1835, by Ignatius Bonomi for Sir Robert Johnson Eden. Incorporates an earlier C16 house. Surrounded by gardens and parkland and a



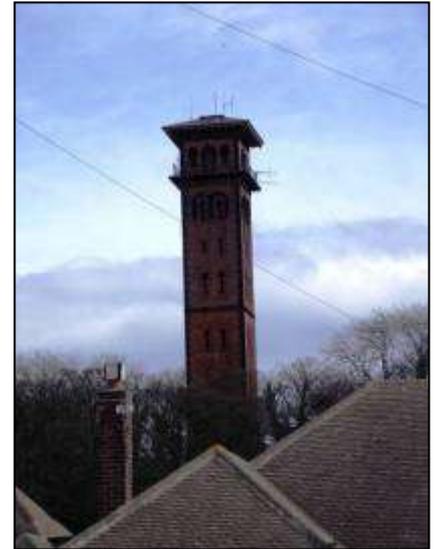
cluster of Estate buildings, including stables. Last occupied as a residential school but now vacant. The Hall is showing signs of a lack of maintenance, with some internal water ingress.

Tyne & Wear;

South Tyneside

SITE NAME: Cleadon Chimney, Cleadon Waterworks, Sunnyside Lane, Cleadon, Boldon .
PRIORITY: C (C) DESIGNATION: Listed Grade II*, CA
CONDITION: Poor OCCUPANCY: Not applicable
OWNERSHIP: Company

Large square chimney, detached from boiler house. 1860-62 by Thomas Hawksley. Italianate style. A prominent local landmark. One of a series of pumping stations along the North-East coast.



SITE NAME: Marsden Lime Kilns, South Shields
PRIORITY: C (C) DESIGNATION: SM
CONDITION: Poor OCCUPANCY: Not applicable
OWNERSHIP: Company

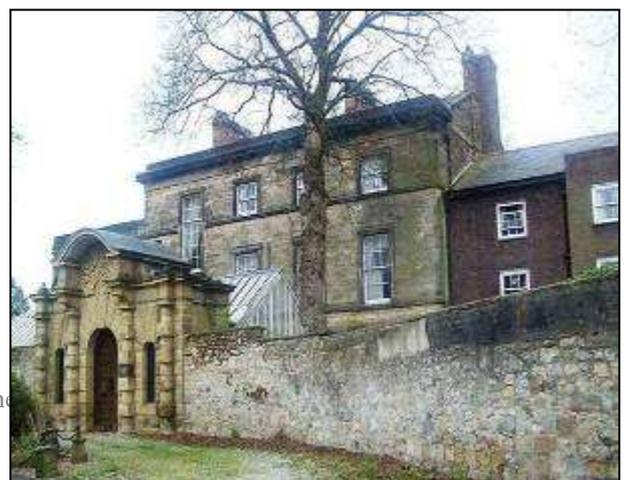
Massive C19 industrial kilns of two types. In poor condition and in urgent need of repair. A recording programme has been completed and a programme of conservation works drawn up, with English Heritage grant-aid.



Tyne & Wear, Sunderland

SITE NAME: Doxford House, Warden Law Lane, Silksworth, Sunderland PRIORITY: C (New entry) DESIGNATION: Listed Grade II*, CA
CONDITION: Poor OCCUPANCY: Vacant
OWNERSHIP: Private

Large house (previously known as Silksworth House), formerly used as a students' hall of residence. Mostly of the early C19 but with some earlier features. The property is vacant and is a target for vandalism despite on-site security systems. The roof over the main house is in a poor state and the resulting leaks are causing internal



damage. **Within in LL area but within Sunderland urban exclusion zone**

9.2.2 Local Buildings At Risk

In addition to the many historic buildings which have been identified through the application of defined criteria and have legal protection as nationally important Listed Buildings, there are many more buildings which can be described as being of local historic interest and in many ways are just as important to the local historic environment and character. To help local planning authorities identify such local buildings and those of them at risk, Paragraph 6.16 of PPG 15 'Planning and the Historic Environment' (1994), and policy 34 of the Regional Spatial Strategy both encourage planning authorities to produce local lists. As well as being professionally led, the compilation of such lists is best achieved with public participation and the nomination of buildings. Of the LPAs within the project area, only the Borough of Darlington has produced a list of local buildings at risk. Unlike the national BAR register local 'at risk lists have also included Grade II listed buildings. A brief assessment of project data suggests the following, possibly amongst many others would also fulfil the criteria to be considered 'at risk';



Windlestone Hall
Gatehouse, Windlestone, Co.
Durham (LB II)



Easington School (LBII)



Westerton Tower (LB II)
18th century
observatory tower



The Smithy, North Road, Hetton-
Le-Hole. (LBII) LB303168,
TWHER1758.

Cleadon Hill Windmill (LBII)
TWHER(1587)



9.4 Non listed locally important buildings

There are also many buildings which are either historically important, valued by their communities or which contribute to the quality of historic environment in village or country which are neither listed or specifically protected. Such buildings deserve attention, repair and re-use wherever possible. Perhaps the two key groups of buildings relevant to Limestone Landscapes are agricultural buildings and former mining structures. Both of these are at threat due to changes in economy and technology, mining has declined if not ceased and traditional farm buildings are often the wrong size and shape for modern farming practices. To these may be added many 'community' buildings often associated with former mining communities such as non conformist chapels, schools, Co-operative stores and miners housing.



Plate 56. Easington; distinctive group of 3 streets of aged miners home. All made of local colliery brick, with dedication stone and distinctive metal enamelled street signage. Locally important groups of aged miners homes are found across the Magnesian Limestone former coal mining communities and although rarely listed are important distinctive elements of the cultural and built historic environment



Plate 57. Easington Colliery: why build a bus stop when you could have converted the distinctive 1920's urinal! (Sadly now derelict but with its own fireplace and crying out for some attention.)



Plate 58 .Farm buildings including the house at Sandy Carrs, Easington of late 18th to early 19th century date. Rendered local stone with original multi-pane sash windows and 'mock Elizabethan' door drip moulding amongst many original features. Now disused and falling into decay with changes in modern farming



Plate 59. Old Cassop: Former cart shed and byre made of local stone with traditional pantile roof. Now falling into decay. Such vernacular buildings are worthwhile in their own right, but also contribute significantly to historic landscape character. This example overlooks rigg and furrow cultivation, historic hedges and dykes which collectively are the distinctive elements of the Limestone Landscape historic character.

Plate 60. Old Eldon; high quality 19th century farm buildings of local stone, falling into disuse and decay with changes in agricultural practice.



10.0 Community involvement in Heritage

The study area has over the years seen a number of notable and very successful heritage projects which have tackled many different aspects of the area's history. Several of these projects have either been instigated or led by local authorities but many others have been community initiatives as described in section 4.0.

The prehistoric barrow at Copt Hill has been taken into public ownership and an active friends group has been involved in its ongoing investigation, interpretation and care. Following the closure of Vane Tempest and Dawdon collieries in the early 1990's Seaham has seen a number of groups exploring their local heritage, the Story of Seaham group, led by the now sadly missed Bill Griffiths, has produced many displays, events and participated in excavations run by Durham CC on the early Christian cemetery near St. Mary's church. At the ruins of Coxhoe Hall, Durham City and County Councils have promoted community and school involvement in excavation and care of the site over several years, and recently the Crow Trees Heritage Group at Quarrington Hill were just the most recent of many to receive HLF funding to explore their local heritage.



Plate 61. (left). Crow Trees Heritage Group at Quarrington Hill are one of many who have secured HLF funding to help explore their local heritage. In this case working with professional archaeologists to uncover the early colliery history of a site now designated a local nature reserve and then propose further conservation works.

Plate 62. (right) Interest in mining heritage is still evident across the area in many formal memorials, but also informally as preserved garden or entrance features as seen with the old chaldron at Elemore golf club (left)



Friends groups are an excellent way of bringing people together to care for specific sites and a further excellent example are the Friends of Hillside Cemetery at Houghton, who have taken on the restoration and management of this unusual mid-19th century cemetery within a quarry. A strong and recurrent theme in community interest in heritage across much of the Limestone Landscapes area is mining history. This takes physical form in many well cared for memorials both old and new to mining disasters or the sites of various pits, but also frequent smaller mementos such as old coal chaldrons and tubs used as planters or garden features. Many of the local history groups active across the area and noted in appendix 1 of this report, have a particular focus on mining heritage and the collection of oral history, photographs and mining memorabilia the most vivid example of which are the banners for the various pits and union lodges.

Note should be made also of several significant projects and initiatives of a wider regional nature or located immediately outside the Limestone Landscapes area. This includes exceptional work by Tees Archaeology in Hartlepool on the Anglo-Saxon monastery and at the late prehistoric site of Catcote. Local interest, aerial photography, metal detecting and Time Team have led to Durham County Council restoring the Grade II* historic parkland at Hardwick, west of Sedgefield and excavating with Durham University the Roman small 'town' located alongside Cades Road. To the immediate north west of the Limestone Landscapes area Arbeia Roman Fort has also been the site of a long term excavation and reconstruction programme. The interest and investigation of the region's history through documents has been greatly enhanced by the creation of the North East England History Institute in 1995 by the region's five universities. Its objectives¹¹¹ are exemplary in standards and inclusion and its on-going work will provide significant improved understanding of the Limestone Landscapes from the medieval period onwards, as well as opportunities for community and local groups to participate in academically sound research.

Metal Detecting

Discussions with the Portable Antiquities Scheme Liaison Officer for the North-East Dr. Rob Collins has indicated there are a number of active metal detector groups and individuals active in the area. A full list of these is included at Appendix 2. Interestingly metal detectorists appear far more active within the study area than in other parts of County Durham and indeed perhaps the North-East region (Rob Collins pers comm). The explanation for this is twofold; firstly many of the active detectorists in the region happen to live within or on the boundaries of the Limestone Landscapes area so making detecting conveniently close; and secondly there is a high proportion of arable land more suitable to detecting on than the predominantly pasture landscape of the west of the county.

Skilful and informed use of metal detectors has already been of significance to our understanding of the area's history through such discoveries as the 6th century Anglian cemetery at Andrews Hill, Easington or the hoard of Bronze-Age axes east of Sedgefield. The use of metal detectors will not diminish and regular liaison with groups and individuals by museum, HERs and especially the PAS Finds Liaison Officer can only bring increased benefits by engaging detectorists in a wider understanding of the area's heritage, not just its artefacts. At the same time it should be possible to take full advantage of the considerable number of enthusiasts walking the landscape each week to increase our recorded knowledge for the benefit of the communities of the area. Several of the projects identified in the Action Plan would greatly benefit from the involvement of responsible detectorists who in turn will hopefully appreciate the wider and deeper significance of metal finds when looked at in the context of a multidisciplinary archaeological project.

10.1 Village Atlas and Parish Plan.

As can be seen from the above examples the public interest in their historic environment and heritage covers a wide range of topics from investigation through survey and excavation, through conservation of archaeological sites and historic buildings, to expressions of cultural heritage such as mining history, banners and memorials. Every community will have a different balance of interests but it is important each has a well informed understanding of the bigger picture. To this end and to help direct communities in the care of their heritage there are a number of existing initiatives which can be drawn upon for inspiration and perhaps used a template for public and community involvement with not only their heritage but wider landscape and environmental themes.

¹¹¹ <http://www.neehi.co.uk/>

For some years the former Countryside Agency and others promoted the idea of Village Design Statements and Parish Plans to encourage communities to get together undertake some basic research on their local patch regarding history, environment and services, and then produce an action plan. Apart from any positives gained through the action plan this had a major positive effect in getting communities together and talking about their environment, understanding it and valuing it. This concept was taken a stage further with regard to the historic environment in the Northumberland National Park where in response to a community request the Park Authority (NNPA), provided funding to allow a professional archaeologist to work with several villages to investigate their heritage, show them how to develop skills in using archives and fieldwork and produce a 'Village Atlas' as a definitive record of their villages historic environment available to all from school to residents to visitors. In addition several of these have led to enthusiastic community groups taking matters further and seeing the Atlas not just as an end in itself but the foundation stone for further conservation, research and involvement. Examples of the Northumberland Village Atlas projects can be downloaded from the NNPA website at the following address;

<http://www.northumberlandnationalpark.org.uk/understanding/historyarchaeology/historicvillageatlas.htm>

As a means of educating and involving communities with their historic environment, the Village Atlas concept has a great deal to recommend it; for the Limestone Landscapes Partnership it has the added advantages of providing an opportunity for raising awareness of the partnerships aims not only regarding heritage but also bio and geo-diversity and landscape, and allowing communities to identify future projects specific and particular to their own needs. As such it can and perhaps could form a basic building block of the Partnerships work across the area. Key to the success of the village atlas is the provision of a professional facilitator and a format or template both of which needs to be in place to ensure the success of any individual scheme and the concept as a whole.



Figure 63. Villages such as Elsdon (above) in the Northumberland National park have produced a 'Village Atlas'. Working with professional archaeologists, communities have produced documents bringing together information on the history and heritage of their village and this is then used as a stepping stone to develop further new and exciting projects and help conserve their own historic environment. The idea would lend itself exceptionally well to the Limestone Landscapes and could be widened to include bio and geo-diversity topics.

11.0 Action Plan

From the analysis of the study area's historic environment it has been possible to identify a number of initiatives and projects to both ensure the character of the Limestone Landscapes area is researched and conserved; and that its people, communities and visitors are more fully informed and engaged with its heritage and historic environment. The identified projects are, where possible, also informed by access arrangements and possibilities, and the interests of the geology audit conducted at the same time as this report.

The projects are presented in a tabulated format below for easy reference. Further detail is provided on project 3 the '25 key sites' elsewhere in this report (chapter 8.0). Further comment is made on the other identified projects at the end of this section following Table of Projects.

At this stage these projects and initiatives are presented in broad outline, it is hoped the next stage of the Limestone Landscapes Task Groups work will be to commission an Historic Environment Action Plan to develop and flesh out these individual projects and secure participation from the communities of the Magnesian Limestone Area supported by those societies, agencies and local authorities which have the care and future well being of the area in their gift.

Limestone Landscapes Historic Environment Audit and Action Plan

Project N°.	Project Title	Current state	Target State	Partners
1	Historic Environment Action Plan	<p>A disparate number of organisations and plans propose action and care of the LL area but in an overall uncoordinated way.</p> <p>There are a number of strategic documents for planning and development purposes usually at 'county' level. In addition organisations such as the National Trust have some more detailed element of specific estate planning. The NERRF and ALSF projects have proposed research objectives which cover the area and noted other published research agendas.</p> <p>Following the audit, this report has also identified a number of projects and initiatives to further the care, study and involvement with the historic environment contained here in this action plan in outline.</p>	<p>Production of an integrated plan to coordinate and inform already planned or in progress projects and initiatives, while clearly identifying and agreeing a broad range of new historic environment projects through the LL partnership to allow funding and resources to be identified, raised and assigned. In particular will allow synergies with other disciplines to be integrated to the benefit of outcomes and costs.</p> <p>The Action Plan will following further consultation take forward in more detail the projects and key sites suggested in this report.</p> <p>Timescale should accommodate delivery of HLF bid and also longer term aspirations.</p>	Local Planning Authorities, Natural England, English Heritage National trust. LL project area communities
2	Locally important historic buildings; Study and report with community	Apart from statutorily identified and listed buildings there are no lists of locally important buildings for the area developed with (or without) community participation.	<p>Lists of locally important buildings, including buildings at risk for all areas of the Limestone Landscape.</p> <p>Process of creating the lists can be used to raise awareness within communities of local historic built character and value</p>	

Limestone Landscapes Historic Environment Audit and Action Plan

Project N°.	Project Title	Current state	Target State	Partners
	involvement		<p>Lists can be used to inform development and conservation.</p> <p>This project can be as a standalone, or as part of projects 6, 7 and 9</p>	

Limestone Landscapes Historic Environment Audit and Action Plan

Project N°.	Project Title	Current state	Target State	Partners
3	25 Key sites.			
3.1	Hastings Hill; major prehistoric ritual site	Apart from unofficial public access to the degraded barrow on the summit of the hill and a PROW across the field to the south, there is currently no public awareness of this major prehistoric landscape, largely under arable fields and suffering from plough damage.	<p>Agreed access with interpretation.</p> <p>Evaluation excavation to confirm condition of the archaeological remains.</p> <p>Pending results of evaluation, land taken out of arable and returned to grassland with accompanying hedgerow/boundary restoration.</p>	<p>Landowner</p> <p>Sunderland City Council</p> <p>DEFRA stewardship</p> <p>English Heritage</p>
3.2	Key Site 2; Prehistoric barrows, caves and palaeo-deposits	As might be expected much of the areas prehistoric archaeology is either partially destroyed above ground by development and modern agriculture, or as has been suggested by several authors potentially deeply hidden in concealed and difficult to access locations such as beneath glacial till in the deep sided dunes of the coast or within the many caves dotted across the Magnesian limestone. This project seeks to build on the work of others both between Tees and Tyne, and further	<p>Location, survey and evaluation of all 'hill top' or ridge barrows along the coastal strip with condition assessment to update Young's survey of 1980.</p> <p>Identification and assessment of cave sites</p> <p>Identification and assessment of pre-ice-age Palaeolithic deposits</p>	<p>Landowners</p> <p>Local Communities & Schools</p> <p>AASDN</p>

Limestone Landscapes Historic Environment Audit and Action Plan

Project N°.	Project Title	Current state	Target State	Partners
		south on the Yorkshire coast to enhance our knowledge of the prehistoric period by identifying and investigating sites of high potential for understanding the areas prehistory; and rescuing surviving information from burial sites in particular already damaged through recent and on-going human activity such as ploughing.		
3.3	Copt Hill & Warden Law; Monumental Prehistoric Landscape Features	<p>Perhaps the two most iconic prehistoric sites in the area, and in Copt Hill the oldest clearly visible man made feature in the Magnesian Limestone area.</p> <p>A strong friends group supported by Sunderland City Council has already done much good work at Copt Hill with public access.</p> <p>Warden Law has no public access or interpretation and the archaeology of the site may be under researched and at risk from plough damage</p>	<p>Support the ongoing work of the Friends of Copt Hill, and widen their interests to include neighbouring Warden Law.</p> <p>Undertake archaeological evaluation work at Warden Law to inform management and interpretation.</p> <p>Pending archaeological evaluation conserve and interpret the sites archaeological remains possibly through reversion of arable fields to pasture.</p>	<p>Friends of Copt Hill</p> <p>Sunderland City Council</p> <p>Landowners</p>
3.4	Redworth; Shackleton Beacon Iron	Shackleton Beacon is one of only two definitive Iron-Age hillforts between Tyne and Tees. Although a scheduled ancient monument there is no public access and it is	<p>Detailed survey and evaluation excavation of the monument to provide understanding and dating.</p> <p>Permissive public access and low key</p>	<p>Redworth Hall Hotel</p> <p>English Heritage</p>

Limestone Landscapes Historic Environment Audit and Action Plan

Project N°.	Project Title	Current state	Target State	Partners
	Age Hill Fort	<p>covered with unmanaged woodland and so has not been investigated archaeologically nor does it contribute to the historic landscape character it full potential.</p> <p>The site also has strong bio-diversity interest, the ruin of an 18th century windmill and connections with early antiquarians of the Surtees family.</p>	interpretation.	
3.5	Ferryhill: Landscape scale investigation and conservation.	<p>An undervalued area of archaeology and historic landscape which the audit for this report together with the reporting of several new sites and finds through the portable antiquities scheme has indicated would make an ideal area for a project not focussed on one particular site or theme but a wider understanding of the historic landscape.</p> <p>Themes of note include late Anglo-Saxon occupation at Ferryhill, pagan Anglo-Saxon metal detector finds/possible cemetery, significant prehistoric enclosure and ritual site at Chilton Lane.</p> <p>The area includes a working quarry and the Ferryhill Gap with its Carr lands the best such area within the LL area. These are also both</p>	<p>Detailed desk based assessment of project area.</p> <p>School & community liaison through presentations and guided walks to raise interest and awareness and identify sites for further investigation which capture the communities interest.</p> <p>Investigation of selected sites to include wide spread organised metal detecting and field walking, and trial excavation.</p> <p>Bio-diversity and geo-diversity partnership project looking at palaeo-botanical resource of carr lands at Ferryhill Gap/Carrs</p> <p>Pending fieldwork, investigate reversion to pasture for crop mark sites currently under arable with restoration of traditional hedgerows and</p>	<p>Local Schools</p> <p>Metal detector Groups</p> <p>Landowners</p> <p>Thrislington Quarry</p> <p>DEFRA Stewardship</p>

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		important geological and bio-diversity features.	boundaries.	
3.6	Seaham St.Marys & Headland; early Christian Heritage	Both church and neighbouring Early Christian cemetery have been the subject of survey and excavation by Peter Ryder, DCC and Durham Uni. All of this still requires proper academic synthesised publication. The site continues to stimulate considerable local interest. Work by Sarah Semple of Durham Uni indicates new areas worthy of investigation within the churchyard relating to the pre-conquest church.	Definitive academic and popular publications on village, church and early Christian community. Further excavation of features identified by geophysics around the church.	Church of St.Mary. Department of Archaeology, Durham University Seaham Town Council
3.7	Bishop Middleham; Medieval Bishop's residence, fishponds and deerpark	The earthworks of the former Bishop's palace are a scheduled ancient monument and have a good quality interpretation board. The wider landscape consisting of former medieval fishponds and a deer park still with a large part of its wall upstanding (but at risk) has little profile and is outside the village conservation area. Despite improved care of the site, some agricultural rubbish remains.	Condition assessment of palace, deer park wall and fishponds. Improved access and interpretation, to include self guided circular walk from village around the deer park perimeter via fish ponds and palace site on existing PROW. Interpretation to note other notable local finds including Roman Paterae and Iron-Age glass bead. Involve local school	Local school Landowner English Heritage Natural England Northumbrian Water (sewage treatment plant within the deer

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		Access is informal and not well known beyond the village.	Consider restoration of Park Wall and Fish Ponds to include archaeological recording and palaeo-environmental sampling of ponds.	park) DEFRA Stewardship
3.8	Old Cassop/ Cassop Vale	<p>Old Cassop is a small hamlet designated as a conservation area with a variety of distinctive local buildings. Its prominent setting on the Magnesian Limestone Escarpment amongst an excellent enclosure hedgerow system which contains rig and furrow and other agricultural earthwork features make it a potential exemplar of a Magnesian Limestone farming hamlet.</p> <p>Field system and traditional farm buildings are falling into disrepair due to changed priorities and economics of modern farming.</p> <p>Neighbouring Cassop Vale is a local nature reserve and contains evidence for earlier land use and quarrying, but currently has little mention of historic environment issues.</p>	<p>Encourage restoration of hedgerows and traditional farm buildings by engaging local farmers/landowners and entry in DEFRA Stewardship scheme.</p> <p>Provide interpretation to encourage visitors to Cassop Vale LNR to walk on an existing PROW loop via Old Cassop.</p> <p>Work with LNR to interpret historic features in addition to bio and geo-diversity to provide an holistic understanding of the landscape.</p>	
3.9	Garmondsway to Coxhoe; medieval land use and deserted	The LL project area is particularly rich in the remains of deserted medieval villages. These sites whilst evocative landscape features in their own right can through appropriate investigation and interpretation be used to	Use material from well investigated DMV sites across the area to provide interpretation of Garmondsway DMV and Coxhoe Hall along existing PROWs	Durham CC Raisby Quarry

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	villages.	<p>explain a wide variety of environmental , social and historical events and factors on settlement and the rural landscape.</p> <p>Although there are several deserted medieval villages in the LL area of which 8 are in whole or part scheduled, there is currently no specific on-site interpretation of any such site.</p> <p>Several such village sites have been lost in the last 50 years, some such as Grindon, ploughed away with no record, others such as Thrislington recorded in extreme detail before quarrying.</p> <p>Garmondsway is an exceptionally well preserved and defined site, while Coxhoe Hall and Coxhoe East House provide further DMV earthworks, and the ruins of the manor house associated with Elizabeth Barrett-Browning (in the ownership of DCC). Both Garmondsway and Coxhoe East House are scheduled ancient monuments</p>	<p>Provides an opportunity for additional interpretation of Raisby Quarry en route between the two sites.</p> <p>Story behind Coxhoe Hall can be incorporated; from the home of Poets, to demolition by the Coal Board. Making use of several years of research and excavation by Durham City and County Councils.</p>	
3.10	Ludworth Tower; medieval fortified	One of only two extant medieval fortifications in the LL area and a scheduled ancient monument (& listed building).	Condition assessment and conservation management statement for tower to ensure long term maintenance.	DCC (owner) Local School

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	tower, village and water mill earthworks	<p>The Site is a major landscape feature in addition to being an historic monument. Clearly built of Magnesian Limestone with local sandstone quoins and dressings</p> <p>The tower also has close associations with earthwork remains of the probable medieval village of Ludworth and water mill on the opposite (south) side of the road alongside the Shadforth Beck.</p> <p>Some hedgebanks of historical and ecological value surround the Tower but are in a degraded condition.</p> <p>Ludworth Village is a post medieval colliery village but has demonstrated a clear interest in its heritage with an LHI award</p>	<p>Explore survey, conservation and access to earthwork remains alongside Shadforth Beck.</p> <p>Restoration of historic hedgebanks around the Tower.</p> <p>Undertake all investigation and work in partnership with local community heritage group</p>	<p>Community Association.</p> <p>Neighbouring land owners</p>
3.11	Dalden Tower and Dalton-le-Dale Church; medieval secular and ecclesiastical power	<p>Along with Ludworth Tower, Dalden Tower is one of only two medieval fortifications in the LL area.</p> <p>It was excavated in the 1980's by the late Denis Coggins and of the Bowes Museum, who completed considerable research but never produced a finished report or publication. The archive including an important</p>	<p>Provide new interpretation and signed walking route between Tower and church providing an opportunity to present the dual centres of medieval power as part of a wider landscape.</p> <p>Reassess the excavation archive and publish.</p> <p>Condition assessment and conservation management statement for Dalden Tower to</p>	

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		<p>assemblage of 16-17th century imported pottery is held at the Bowes Museum</p> <p>St. Andrew's church a short walk away at Dalton-le Dale has Anglo-Saxon origins, sitting within a circular churchyard and having built into its largely 12th century fabric an Anglo-Saxon 8-9th century cross and a later sundial. Dalton-le-Dale formed part of the estates of Jarrow-Monkwearmouth and confirmed in AD 930.</p> <p>Dalden Tower has some interpretation (vandalised) but material linking Tower and the surrounding landscape is lacking re-enforcing the belief that heritage is discrete packages or sites with labels rather than the wider landscape.</p>	<p>ensure long term maintenance.</p>	
3.12	Hart Village; Village Atlas	<p>Hart is a village of some considerable antiquity with pre Norman Conquest origins. The Tees HER notes a number of sites in and around the village including the Church of St. Mary Magdalene with substantial Anglo-Saxon fabric, and the remains of the manor house of the de Brus family, major landowners in medieval east Durham and ultimately Kings of Scotland. The village has a number of listed</p>	<p>Provide specialist help to work with the people of Hart to produce a Village Atlas. This will teach people how to research and interpret information from primary and secondary sources to upstanding physical remains by bringing together all the known historical information on the village and supplementing this with some field survey.</p> <p>From this further projects on themes or sites which</p>	<p>Hart Primary School</p> <p>Hart Parish Council</p>

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		<p>buildings largely of 18th and 19th century date including one of the finest preserved windmills (built of Magnesian Limestone) within the LL project area.</p> <p>The surrounding area is rich in archaeological remains including a recent find of a substantial Bronze-Age hoard to the west.</p> <p>Despite its undoubted historical importance Hart is not a conservation area. The Parish Council and several individuals have lobbied Hartlepool Borough Council on the issue but in 2001 and again in 2008 this was declined on the grounds of too much modern housing. Instead the parish were asked to consider producing a village Design Statement or similar.</p> <p>The village primary school has a keen interest in local heritage and has included a village trail and other information on their website. http://www.schooljotter.com/showpage.php?id=10489</p>	<p>have stimulated the interest of the community will be developed. In particular produce some form of design statement to guide future development of the village and offer consideration and protection to those historic elements valued by the village.</p>	
3.13	St.Mary's Monk Hesledon; A	<p>Monk Hesledon is a small rural hamlet between Hartlepool and Peterlee and about 3KM from the coast. It contains the earthwork</p>		

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	lost Church? Early Christian heritage and agricultural change	remains of a shrunken medieval village and is now composed of a single large farm and a scatter of houses. On the south side of the hamlet adjoining the deep sided and wooded Hesleden Dene is the site of Monk Hesledon Church		
3.14	Westerton Hill: High point and observatory	Westerton is a characterful Limestone Landscape village in its own right but also has the privilege of being the East Durham Magnesian Limestone's highest point above sea level. Upon this is built the 18 th century observatory of Thomas Wright (1711–1786) a scientist and renaissance man of international repute. The tower although a listed building (Grade II) is in poor condition and should be considered as 'at risk'. There is no access to the tower (the door is walled up) and there is very limited interpretation	Prepare costed conservation management plan for the tower. Initiate repair works to include internal access and new stair/viewing platform (for occasional open day use) Provide improved on-site interpretation.	Durham University (Physics Dept or Astronomy Society)
3.15	Hawthorn Dene & Beacon Hill	Hawthorn Dene leading from the village of Hawthorn (conservation area) down to the beach at Hawthorn Hive is a singular high quality landscape containing features of a number of historic periods. Extension of the	Self guided trail leaflets with subtle marker posts to provide a walk through time explaining the history of the coast and heritage features along the route from prehistoric hunter-gatherer communities through medieval and later agriculture to designed	National Trust Heritage Coast

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		<p>area to include the National Trust estate of Beacon Hill to the south enhances this opportunity considerably.</p> <p>It provides from existing PROW's a number of opportunities to tell the story of the history of the coast from prehistoric times to the present day within a broader understanding of bio and geo-diversity.</p>	<p>landscapes and pleasure gardens of the 18/19th centuries and World War II coastal defence.</p> <p>Major opportunity for integrated interpretation with bio and geo-diversity interests and explaining land management issues for National Trust.</p>	
3.16	Castle Eden Dene	<p>Today a National Nature Reserve, but in the late 18th and 19th centuries together with The Castle (listed building Grade II*) and estate village and church, this landscape was at the cutting edge of fashion as a gothick revival house and picturesque landscape.</p> <p>The parkland and Dene are included on the English Heritage Register of Historic Parks & Gardens.</p> <p>The Castle and its immediate surroundings have additional historical significance as the site of a medieval village and also the location of a notable Anglo-Saxon find the Castle Eden Claw Beaker, a 5th century glass vessel from the Rhineland dug up in 1775 as part of a pagan Anglian burial and now in the British</p>	<p>Improve existing interpretation to provide visitors with understanding of the historic landscape and the cultural movements of the Gothick and picturesque in complementary way with bio and geo-diversity interests.</p> <p>Investigate Conservation Management Plan for the Dene and ensure this has a balanced profile of interests and consideration of the historic environment.</p>	Natural England

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		Museum.		
3.17	Windlestone Hall & Park	<p>Windlestone Hall and Park is one of the few significant large country houses and designed landscapes within the LL study area. The house is Grade II* listed, several other buildings are listed and the Park is included on the English Heritage register of Historic Parks and gardens.</p> <p>Windlestone Hall has close associations with the Eden family and in particular Sir Anthony Eden, former Prime Minister.</p> <p>The house, a former school is now disused and is for sale by its current owner Durham County Council.</p> <p>The condition of the house and Clock tower/stable in particular are causing concern and have been placed on the Buildings At Risk Register.</p> <p>Sedgefield Borough Council have issued a supplementary planning document for the site requiring a conservation management plan before any redevelopment will be approved.</p>	<p>Ensure Buildings At Risk issues are addressed, and that any new proposed development conforms to the Sedgefield Borough planning documents.</p> <p>Secure permissive foot path access through the park on a route to be identified through further research and based upon 19th century intentions of experiencing the designed landscape.</p> <p>Secure management plan for the historic parkland as a separate but related objective to the house and curtilage buildings</p>	

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3.18	<p>Fulwell: Windmill/lime kilns/ quarry/ World War I acoustical Mirror.</p> <p>(HER 4992)</p>	<p>Fulwell although on the northern urban fringe of Sunderland has a combination of post medieval industrial sites second to none in one small area. It is also been highlighted as a geo-diversity site.</p> <p>From the restored Fulwell windmill, to the Fulwell and Carley Hill quarries and the adjacent industrial scale Sir Hedworth Williamson limekilns the immediate area has excellent examples of buildings and sites characteristic of the post medieval Magnesian Limestone semi-rural industrial landscape.</p> <p>Fulwell Mill is a listed building, made of Magnesian Limestone and already a visitor attraction with an active Friends group.</p> <p>The Sir Hedworth Williamson limekilns are also listed Grade II and are both made of Magnesian Limestone and from the late 18th century until closure in 1957 burnt Magnesian limestone from the adjacent quarry.</p> <p>The site also contains some interesting military remains allowing interpretation of the defended coast theme; in particular the WWI concrete acoustic mirror designed to provide</p>	<p>Conservation management plan for Sir Hedworth Williamson limekilns and the World War I acoustic mirror to ensure future safety and maintenance.</p> <p>Self guided interpretative trail beginning and ending at Fulwell Wind Mill to present an understanding of the areas characteristic post medieval industrial past, and help support visitor numbers to the Mill.</p> <p>Close tie in with geo-diversity interests in understanding the Magnesian Limestone, its formation and exploitation.</p>	<p>Sunderland City Council.</p> <p>Friends of Fulwell Windmill</p>

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		advance warning of Zeppelin raids.		
3.19	Cleadon Hills. Windmill, WWII pill boxes, Cleadon Water pumping station chimney	<p>Cleadon Hills is an area of Magnesian limestone grass land already with good access and in the care of the local authority. It is a designated conservation area and has a character area appraisal.</p> <p>It contains a number of historic landscape features and structures as well as providing far reaching views of several other historic features.</p> <p>In particular it contains an early 19th century tower windmill (listed Grade II) and close views of the Italianate chimney of the former Cleadon Water pumping station, built for the Sunderland and South Shields Water Company to a design by Thomas Hawksley and opened in 1863. The pumping station is one of a chain running down the coast as far as Hesledon and together they are a key characteristic of the coastal Magnesian Limestone historic landscape.</p> <p>The tower is currently on the Buildings At Risk</p>	<p>Assist implementation of the management plan for the conservation area.</p> <p>In particular secure the landmark windmill and water pumping station chimneys future.</p> <p>Update interpretation to provide a more holistic understanding of the landscape.</p>	

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		<p>Register</p> <p>The vicinity also contains coastal defense features of WWII.</p>		
3.20	Quarrington Hill: colliery and quarries	<p>Quarrington Hill is a former mining community which sits on the western edge of the Magnesian Limestone escarpment. It overlooks the site of the former Crowtrees Colliery, now a local nature reserve but still retaining spoil tips and many structures from the colliery which had closed by 1900.</p> <p>Although covered in hawthorn scrub the site provides an excellent opportunity to interpret a former colliery site with tramways, spoil tips, engine platforms and water management systems.</p> <p>On the north side of the site is Cold Knuckles Quarry of interest for its history of occupation and mineral extraction but also a highlighted site for geological interpretation</p> <p>There is an active heritage group in Quarrington Hill who are currently</p>	<p>Interpretation regarding the colliery history of the site to complement bio and geo-diversity interests.</p> <p>Selective removal of hawthorn scrub to reveal industrial features and allow clearer interpretation of the site.</p> <p>Investigation and securing of capped pit shaft to allow safe public access.</p> <p>Conservation of 'The Castle', the large monumental winding or pumping engine foundation block.</p>	<p>Crowtrees Heritage Group.</p> <p>Durham County Council</p>

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		undertaking a survey of the site with funding from the HLF.		
3.21	Haswell Plough Engine House & Colliery	<p>Haswell Plough engine house is a scheduled ancient monument and perhaps the singular most dramatic remaining structure associated with the deep mining industry of the 19th century in the LL area.</p> <p>Looking more like a medieval fortified tower the structure is made from local Magnesian Limestone and represents the singular technological breakthrough of using steam beam engines to pump out deep mine water and so exploit the East Durham coal field.</p> <p>The site appears well maintained and has both a memorial to the 1844 pit explosion and some interpretation.</p> <p>The site is poorly signposted from the main road from which it is obscured by a relatively young plantation of trees.</p> <p>The engine house stands in apparent isolation, not giving any hint of the former</p>	<p>Confirm ownership and on-going maintenance arrangements to safeguard this iconic structure.</p> <p>Improve signage to site from main road and visibility within the landscape.</p> <p>Improve interpretation to provide a better idea of the now lost colliery buildings and context of the engine house.</p>	

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		surrounding colliery and community.		
3.22	Marsden; quarrying and limekilns	<p>Marsden limekilns are a scheduled ancient monument and situated dramatically facing the coast north of Whitburn. Together with their neighbouring and associated quarries they form arguably the most dramatic large scale evidence for historic limestone extraction in the LL area.</p> <p>The kilns are on the English Heritage Buildings At Risk Register, which notes a need for urgent repair and that recording and a scheme of conservation have been drawn up.</p> <p>The National Trust own the coast and some related features directly in front of the kilns.</p> <p>The Geo-diversity audit has identified several former quarry sites in the immediate area of the kilns</p>	<p>Support efforts to conserve the site and remove from Buildings At Risk Register.</p> <p>Explore access and interpretation depending on health and safety issues</p> <p>Tie in closely with geo-diversity interpretation and explanation of the wider landscape and exploitation of the Magnesian Limestone.</p>	<p>English Heritage</p> <p>Site owners</p> <p>National trust</p>

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3.23	Middridge & Shildon. (railway heritage, quarrying, medieval village and grange)	<p>Middridge quarry has been identified as a key site for Geo-Diversity. The quarry lies adjacent to the track bed of the Stockton and Darlington Railway and a short walk from the National Rail Museum at Shildon. To the north lie Middridge Village and Grange both classic examples of Limestone Landscapes medieval rural settlement.</p> <p>Reasonable public footpath network with some key sections lacking</p>	<p>Provide a footpath link alongside the S&DR from the NMR to Middridge Quarry and link into a circular walk and interpretation with geo-diversity interest which loops round to the north via Middridge.</p> <p>Contribute to raising the profile of the S&DR as the worlds first passenger railway.</p>	National Railway Museum.
3.24	Penshaw Hill; a celebration of radicalism and worms	<p>Penshaw Hill has two major claims to fame, firstly as a site of a major scene from the medieval folklore epic concerning the Lambton Wyrme, secondly and more obviously as the site of the monument to John Lambton, liberal politician and 1st Earl of Durham, often called 'radical Jack' due to his overtly liberal politics.</p> <p>The site attracts considerable visitor numbers already and is an ideal icon and interpretation vehicle for the Limestone Landscapes with some additional work.</p> <p>The hill also has extensive quarries and as a landmark feature is one of the most visible expressions of the Magnesian Limestone</p>	<p>Survey and interpretation of the hill to clearly identify quarry workings and any older features.</p> <p>Improved interpretation regarding radicalism, folklore and the inspiration for the monument the <i>Theseum</i> in Athens.</p> <p>Consider repairs to the staircase hidden in one of the columns to provide safe access to the roof viewing platform on specific open days.</p>	National Trust

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		<p>escarpment.</p> <p>The prominence of the hill, its folklore associations and the form given by numerous quarries and old tracks have promoted much speculation on the internet regarding the prehistoric history of the hill.</p>		
3.25	<p>Coastal Defences;</p> <p>Trow Point and Frenchman's Point Battery</p>	<p>The coast between Tyne and Tees contains significant numbers of military coastal defence sites built from the 19th century onwards. Many are in poor condition, on private land or spread out along larger expanses of coast and so difficult to interpret. There is however a concentration of sites north of Whitburn which could be conserved for interpretation.</p>	<p>Condition survey of military remains at Trow Point/Frenchmans with view to consolidation and interpretation telling the story of a defended coast.</p> <p>As opportunities arise through reviews of existing interpretation of the coast add in information on 20th century defence.</p>	National Trust
4	<p>Popular publication on the NCA's archaeology and heritage. Of value both to tourist and local communities to foster an understandin</p>	<p>There are no available popular publications on the historic environment and heritage of the LL area. Several areas (principally larger towns) have a number of local history publications such as the VCH volume for Sunderland, or collections of local historical photographs. More academic articles and publications are available but these such as Miket are now several years out of date.</p>	<p>Popular but academically sound fully illustrated colour publication covering the East Durham Magnesian Limestone.</p> <p>Publication to cover the built heritage of buildings, archaeological sites and landscapes and also the cultural heritage in particular agriculture, mining, quarrying and coastal communities.</p>	

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	g and awareness of the area.			
5	Review & refresh existing interpretation of the historic environment	As noted in section 8.2, there is already a considerable amount of heritage interpretation covering the area. This is of variable quality and in some cases either now out of print (leaflets), or illegible due to time or vandalism.	Without wishing to stamp a universal LL house style on all interpretation across the area provide a style guide to assist in quality and legibility of production and link this with the LL themes and profile.	
6	Complete CACAs and management plans for all conservation areas in the LL area..	An up to date Conservation Character Area Appraisal and management plan is essential for all conservation areas across the LL area if villages are to maintain their unique character while being allowed to develop as thriving communities. Currently several village conservation areas do not have a CACA.	Prepare CACA's for all conservation areas currently without appraisals. Refresh all existing CACAs over 5 years old. Ensure all such work takes into account the wider historic environment and objectives of the LL partnership.	
7	Character assessment and design guidance on conservation of traditional and historic buildings	While certain settlements designated as conservation areas have appraisals which describe just what it is in the blend of materials, building styles and settlement layout that the creates the distinctive local character of the LL area's buildings and villages.	Produce a simple and copiously illustrated design guide for the LL area, building on existing conservation area character appraisals and similar in format to that produced for the North Pennines AONB. Wide distribution and adoption will inform and educate communities of the area, developers and	

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	across the NCA.		<p>planners and raise the standard of new build and the care and maintenance of existing traditional buildings.</p> <p>The guide should also contain information on how traditional buildings can be sensitively upgraded in terms of energy efficiency.</p>	
8	Study in partnership with Geo-diversity interests to identify stone used in vernacular buildings with particular quarries and formations	<p>Currently there is little published evidence for the source quarries of much of the LL areas building stone.</p> <p>To aid with restoration of old buildings, and ensure new build fits in with the areas character it is important that sources of stone are identified and quarry supplies maintained.</p> <p>Such a study would also help build a chronology of quarrying in the area and provide additional material for interpretation and education.</p> <p>This would have significant inter-disciplinary benefits with geo-diversity.</p>	<p>Petrological analysis of firmly dated buildings and historic structures to identify quarry source material and identify regional diversity of stone use within the LL area.</p> <p>Improved building conservation and chronology/history of quarrying.</p>	
9	Conservation of traditional buildings;	Traditionally lime was burnt in the area to produce material for use in mortars for the building industry, and to sweeten land for	Work with NE Heritage Skills Initiative to provide training days in general conservation maintenance	Quarry companies Heritage Skills

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	Lime Burning and Lime mortars	<p>agricultural improvement.</p> <p>Currently there are no producers of burnt lime products in the area, and as the Heritage Skills Initiative run by the North East Civic Trust has highlighted, few builders with the knowledge or skill of using traditional lime mortars.</p> <p>Lime mortars are becoming increasingly favoured once more in both restoration & maintenance work, but also in some new build as they are more flexible and have a lower carbon footprint per equivalent weight than Portland Cement.</p>	<p>for home-owners/communities.</p> <p>Work with NE Heritage Skills Initiative to provide more in depth training for local builders and contractors in conservation materials and methods.</p> <p>Consider repairing or rebuilding a traditional lime kiln in which to hold lime burning sessions as a dramatic focal point for local stone and traditional skills. Note the example of the VAR group in the North Pennines who have undertaken a similar project successfully and developed links with traditional lime burners in Romania as part of an EU project.</p>	<p>Initiative.</p> <p>English Heritage</p>
10	Village Atlas programme to follow on from Hart project 3.12 above	<p>Several villages in the LL area have produced parish plans or village design statements to cover a range of topics about their local environment. Similarly there are a number of villages who have through lottery funding produced booklets or studies on the history of their village. These are all to varying formats and quality and scope.</p> <p>The Village Atlas format as successfully</p>	<p>Develop a Village Atlas format for the LL area.</p> <p>Consider expanding the scope of the Village Atlas to include bio and geo-diversity.</p> <p>Support communities with professional help to produce a Village Atlas.</p> <p>From each Village Atlas develop bespoke further</p>	

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		<p>developed by the Northumberland National Park allows communities to investigate their heritage (and indeed any other environmental issue) and then propose further work based on their own needs and aspirations while being supported by professional specialists.</p>	<p>projects inspired by each community.</p>	
11	<p>Support for community archaeological excavations on identified research themes.</p>	<p>There have been a number of community archaeological excavations in the LL area in the past which have provided opportunities for community members to dig, perhaps one of the most immediate, exciting and rewarding ways to experience the past.</p> <p>At the time of writing there are no current projects in the area, but a number in close proximity such as those run by Tees Archaeology at Catcote which could provide digging opportunities for those who are interested.</p> <p>Excavation to modern standards can be significantly expensive and require considerable specialist support.</p>	<p>Opportunities for excavation and the learning of archaeological techniques from field walking to surveying should be made available to the communities of the LL area.</p> <p>Rather than set up specific archaeological training projects, use the surveys, evaluations and excavations identified as part of the 25 key sites to provide these opportunities. Ensure such participation opportunities are widely flagged up and not restricted to those involved in each Key Site and actively involve or coordinate through regional and local archaeological and historical societies.</p>	<p>AASDN, TEES Archaeological Society etc.</p>

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Project N°.	Project Title	Current state	Target State	Partners
12	Awareness and adoption; care in the community for historic monuments and buildings!	<p>Many archaeological sites, ruins and historic buildings remain relatively unknown and uncared for by their communities and owners. This is often due to ignorance regarding their presence or value, rather than deliberate neglect.</p> <p>A sense of ownership of heritage needs to be developed above but not conflicting with laws of private property, to encourage involvement and care with the historic environment.</p>	<p>From awareness raising work in projects such as the Village Atlas (10 above), encourage communities through 'Friends' groups or local schools to 'adopt' a local monument and provide it with some degree of care.</p> <p>This could include minimal work such as occasional litter picking, grass cutting or removal of woody growth, to more major tasks which would require specialist support and funding.</p> <p>In theory any monument could be included in the scheme from a scheduled monument such as Ludworth Tower to the minor structures which are often overlooked for their contribution to historic landscape character such as mile stones, metal finger posts and village green features.</p>	Local schools
13	The elusive Mesolithic; further research into identifying well preserved deposits of the earliest prehistoric	<p>The deep sided dunes of the coast have produced significant collections of prehistoric flint tools, and been identified as containing the few sites in the area where Palaeolithic remains may be found in pre-Ice-Age compacted soils. Little if any modern research has taken place into these sites since the first half of the 20th century.</p> <p>Such a research project would provide an</p>	<p>Undertake a desk based survey followed by site evaluation and coring to identify the best preserved deposits likely to contain Palaeolithic or Mesolithic in-situ archaeology.</p> <p>Undertake excavation of selective sites.</p> <p>Provide interpretation of such sites and use in a</p>	

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Project N°.	Project Title	Current state	Target State	Partners
	times with the intention of identifying a site for research excavation.	ideal opportunity for collaboration with geologists.	wider context to explain environmental change, rising sea levels etc.	
14	Greater Access to Museum & artefact Collections	<p>There are significant museum collections with material from the LL area in South Shields, Sunderland and Hartlepool, all close to where the items were found and so accessible to the LL area communities.</p> <p>Much more could be done to improve access to artefacts held further afield such as The Bowes Museum or even the British Museum.</p> <p>The only regular display space hosting a regular and rotating display of collections and materials within the study area was at Seaton Holme, Easington and has been closed for some while (although recent information suggests Groundwork have identified grant aid to re-open this).</p>	<p>Touching or having close contact with artefacts from the past is a special way of experiencing heritage and should be more widely available to the communities of the LL area.</p> <p>Reinvigorate heritage centre at Seaton Holme.</p> <p>Work with Durham Learning Resources to provide LL Historic Environment and Geology handling packs and promote to schools across the LL area.</p>	<p>Regional Museums</p> <p>Private Collections</p> <p>Groundwork Trust (Seaton Holme)</p>
15	The immediate past; family,	Many of the local heritage groups across the LL area have been founded or have a strong interest in collecting photographs and	Provide advice and facilities to help community groups and individuals digitise and catalogue	

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Project N°.	Project Title	Current state	Target State	Partners
	community and photographic memories	<p>memories, often regarding their coal mining heritage.</p> <p>As a focus for this many mining disasters have some form of physical memorial on the site of former pits or in village centres.</p> <p>There are also a significant number of official and private mining memorials and mementos such as old pit head wheels and chaldrons.</p> <p>A considerable amount of information is available digitally on the areas coal mining heritage through the Durham Mining Museum, but large collections exist in the hands of societies, community groups and individuals</p>	<p>historic photographs and images.</p> <p>Investigate ways of including these collections on the web through sites such as Tomorrow's History or Durham Mining Museum.</p> <p>Produce an inventory of mining memorials including aged miners retirement homes and include on the HERs for future protection in the planning process.</p>	
16	Lost in a sea of rig & furrow	<p>The transcription of aerial photographs by the ALSF and RCZA projects has made it clear that the LL project area is particularly rich in rig & furrow, the grassed over remains of earlier arable cultivation. This may be from a variety of dates from medieval Ox ploughing to Victorian steam ploughs.</p> <p>The enhancement work for this report has also noted that at the core of many of these field systems sit 19th century planned farmsteads of</p>	<p>Confirm and preserve surviving rig & furrow as a major element of historic landscape character.</p> <p>Undertake a study of rig and furrow to provide a typology and dating guide and apply to apparently post-medieval farmsteads to better understand the settlement and agricultural exploitation of the LL area.</p> <p>Work with bio-diversity interests to protect ancient rig & furrow as land least disturbed or improved</p>	

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		the age of agricultural improvement with 'u' plan buildings and courtyards. Although it records extent and direction, sadly the AP transcription work does not record the width of the rig a major diagnostic factor in dating it to medieval or post medieval periods.	and so of highest ecological and historical importance.	
17	Reassessing the Mesolithic	The Coastal strip in particular has produced a large number of stone tool artefacts, many of them collected nearly a century ago by C.T.Trechman. Following on from the reassessment of material on the North Yorkshire Coast undertaken through Tees Archaeology as part of the 'North East Yorkshire Mesolithic' project (2008), this work and methodology should be extended to the Limestone Landscapes coast	Better understanding of the Mesolithic occupation and use of coastal resources between Tees and Tyne.	Tees Archaeology, Heritage Coast English Heritage

12.0 Conclusion

At first glance the boundary of the Magnesian Limestone National Character Area makes little sense from an historic environment perspective, cutting medieval villages in two or from their field systems and dividing several archaeological sites from their context. Further analysis however does identify a number of historic elements consistent across the area and which do provide a number of shared cultural and historic themes.

Through historic landscape, architecture, agriculture and a heritage stretching back at least 8,000 years the area and its people are unique and of individual character. It is hoped that this report and the supportive work of the Limestone Landscapes Partnership will help to foster, protect and encourage the conservation and celebration of this heritage into the 21st century and beyond,

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On line Source Material

Aycliffe Village Local History Society

<http://www.aycliffehistory.org.uk/index.htm>

Accessed 4/6/2009

County Durham Landscape Character Assessment.

<http://www.durham.gov.uk/landscape/usp.nsf/pws/Landscape+Character+-+Character+Assessment>

Accessed 6/1/2009

West Cornforth; community and history site

<http://www.cornforth.org.uk/>

Accessed 9/5/2009

Durham Magnesian Limestone Natural Area Profile. Natural England.

http://www.naturalengland.org.uk/Images/naprofile6_tcm6-4124.pdf

Accessed 15/3/2009

Durham Heritage Coast.

<http://www.durhamheritagecoast.org>

Accessed 9/5/2009

European Landscape Convention.

http://www.coe.int/t/dg4/cultureheritage/Conventions/Landscape/default_en.asp

Accessed 6/3/2009

FISH Forum for Information Standards in Heritage.

<http://www.fish-forum.info/>

Get Carter film locations

<http://www.getcartertour.pwp.blueyonder.co.uk/getcarter/>

Accessed 2/6/2009

Google Earth.

Hillside Cemetery, Houghton-le-Spring. <http://www.theoldcem.co.uk/>

Landscape Character Network. <http://landscapecharacter.org.uk>

Accessed 6/3/2009

Listed Buildings of Sunderland;

<http://www.tomorrows-history.com/projects/PG0100060001/listed%20buildings%20index.htm>

Multi Agency Geographic Information. <http://www.magic.gov.uk/website/magic/>

North-East Bibliography of History and Archaeology.

<http://lash.sunderland.ac.uk/web/projects/nebibliog/ahome?ahome>

Modern Antiquarian

http://www.themodernantiquarian.com/site/2350/penshaw_hill.html

Penshaw Monument

<http://www.penshawmonument.co.uk/>

Pictures in Print

<http://www.dur.ac.uk/picturesinprint/>

Accessed 20/3/2009

Portable Antiquities Scheme finds database.

<http://www.finds.org.uk/> and <http://www.findsdatabase.org.uk/>

Accessed 19/3/2009

Shotton Colliery; A History.

[http://www.tomorrows-](http://www.tomorrows-history.com/projects/PJ0100110001/History%20of%20Shotton%20Colliery.htm)

[history.com/projects/PJ0100110001/History%20of%20Shotton%20Colliery.htm](http://www.tomorrows-history.com/projects/PJ0100110001/History%20of%20Shotton%20Colliery.htm)

Structural Images of the North East <http://sine.ncl.ac.uk/>

Time Team 2002. Sedgefield, County Durham.

<http://www.channel4.com/history/microsites/T/timeteam/2002/sedgefileldhtml>

Accessed 19/3/2009

Tomorrow's History; The regional local studies site for the North East of England.

<http://www.tomorrows-history.com/>

Aerial Photographic Collections

Durham County Council Archaeology Section

Tees Archaeology AP Collection

Google Earth

Department of Archaeology University of Durham

Appendix 1. Local Historical and Archaeological Societies

Arbeia Society

The Secretary, The Arbeia Society, Arbeia Roman Fort, Baring Street, South Shields, Tyne & Wear, NE33 2BB.

email: contact@arbeiasociety.org.uk

Architectural & Archaeological Society of Durham & Northumberland.

Contact Belinda Burke, Hon. Secretary Broom Cottage, 29 Foundry Fields, Crook, County Durham, DL15 9JY.

e-mail: archandarch.dandn@dur.ac.uk

www: <http://www.dur.ac.uk/archandarch.dandn>

Aycliffe Village Local History Society

Hon. Secretary, Brian Gargate, 2 Lowfields, Newton Aycliffe. DL5 6QW.

Telephone 01325 312090 or e-mail brian.gargate@homecall.co.uk

Other officers of the Society are:

Chairman - Harold Moses at harrymoses@gmail.com

Hon. Treasurer - David Lewis at davidlewis001@homecall.co.uk

Events Secretary - Elizabeth Lewis at davidlewis001@homecall.co.uk

WWW. <http://www.aycliffehistory.org.uk/index.htm>

Bishop Middleham Local History Society

(member of County Durham History & Heritage Forum).

Bowburn Local History Society

Contact Malcolm Bell

Email: malbell07@tiscali.co.uk

Cassop History Society

<http://www.cassop-history-society.com/>

Cleadon Village History Society. 14 Meadowfield Drive, Cleadon, SR6 7BY.

Cleveland Industrial Archaeology Society

Hon. Treasurer, Mr. A.M. Burgess, 6 Pegman Close, Guisborough, TS14 6DL.

The Friends of Copt Hill

Secretary: Mrs Mary Buston, (Treasurer: Mr Andrew Fletcher)

36 Coptleigh, Houghton-le-Spring, Tyne and Wear, DH5 8JE.

Tel: 0191 584 6506

Council for British Archaeology (North)

Hon Secretary, Jennifer Morrison, West Chapel, Jesmond Old Cemetery, Jesmond Road, Newcastle upon Tyne NE2 1NL

Email: cbanorth@britarch.ac.uk

County Durham History & Heritage Forum

<http://www.durhamweb.org.uk/historyforum/index.htm>

Crowtrees Heritage Group

Joy Pounder: Email: joypounder@yahoo.com

Friends of Doxford Park

Tel: 0191 5289146 or 5282365

<http://www.doxfordpark.org.uk/index.html>

Durham County Local History Society

The Secretary

21 St Mary's Grove

Tudhoe Village

SPENNYMOOR Co. Durham

DL16 6LR

Email: johnbanham@tiscali.co.uk

Web: <http://www.durhamweb.org.uk/dclhs>

The Fulwell Society.

Tel: 0191 5486066 Or 5484764

Friends of Fulwell Windmill

Fulwell Windmill, Newcastle Road, Fulwell Sunderland, SR5 1EX

Tel: 0191 5169790

Grindon Heritage Society

Tel: 0191 5343297 or 5347462

Hart Village Millennium Steering Committee - Walk and Church Leaflet

Rev. John Lund, Hart Saxon Church, Hart, Hartlepool, TS27 3AP

<http://www.tomorrows-history.com/projects/PK0100040001/hartindex.htm>

Haswell History Group

Tel Rebecca V Hilton

Tel: 01287 280025

<http://www.haswell-history.co.uk/index.html>

Herrington Heritage

Chairman: Douglas Smith

Vice Chairman: Arthur Temple Tel: 0191 5226184

Secretary: secretary@herrington-heritage.org.uk

Judith Hunter, Webmaster: webmaster@herrington-heritage.org.uk

Friends of Houghton Hillside Cemetery

Mrs Janice Short, 2 Jedbergh Close, Murton, Co. Durham SR7 9SB

viriniagatherer@hotmail.com nwood@theoldcem.co.uk

<http://www.theoldcem.co.uk/>

Houghton and District Local History Group.

Houghton Library, 74 Newbottle Street, Houghton-le-Spring DH4 4AF

Friends of Hylton Dene

Hylton Castle, Craigavon Road, Sunderland SR5 3PA

Ludworth Community Association (History Subgroup)

Project Contact Olivia Simpson

Ludworth Community Centre, Front Street, Ludworth, County Durham, DH6 1LF

Email: olivialex@aol.com

Murton Heritage Society

Glebe Centre, Durham Place, Murton, Seaham, County Durham.
SR7 9BX
Tel/Fax: 0191 520 8650
Email info@murtonheritagesociety.co.uk

North East England History Institute (NEEHI)

School of Arts, University of Teesside, Middlesbrough, TS1 3BA
Tel: 01642 384019
neehi@tees.ac.uk

North East England Vernacular Architecture Group (NEEVAG)

Martin Roberts, Secretary, Old Fleece House, Front Street, West Auckland, Co.Durham, DL14 9HW
Email: hmr@fleece20b.freeserve.co.uk
Tel: 01388 833214

Or

c/o Mr Colin Rees, 10 Northlands, Tynemouth, Tyne & Wear NE30 2TL. Email rees@jamree.demon.co.uk, telephone 0191 257 3430.

Northern Archaeology Group.

Tel: 0191 584 1312
<http://northernarchaeology.multiply.com/>

Pride in Easington Group; C/O Durham Heritage Coast.

Sedgefield Family History Society

Mail to: sedgefieldfhs@hotmail.com

Sedgefield Local History Group (member of County Durham History & Heritage Forum).

Silksworth Heritage Group.

Tel: 0191 521 2399
<http://www.silksworthheritagegroup.org.uk/>

Shotton Colliery History Group

Mrs Kathleen Young, Age Concern House, 65 Seaside Lane, Easington Colliery
Co. Durham, SR8 3PG. Tel: 0191 5272359

Or Mr Walter Spink, 4 Alcote Grove, Shotton Colliery Co. Durham DH6 2RB
<http://www.tomorrows-history.com/projects/PJ0100110001/intro.htm>

Society of Antiquaries of Newcastle Upon Tyne

The Black Gate, Castle Garth, Newcastle upon Tyne, NE1 1RQ
Telephone: 0191 261 5390
Email: admin@newcastle-antiquaries.org.uk

South Tyneside Local Studies Library (member of Co. Durham History & Heritage Forum)

Contact: Anne Sharp
Email: anne.sharp@southtyneside.gov.uk

Story of Seaham Group (no current contact identified after Bill Griffiths)

Sunderland Civic Society

Mr John Tumman, 15 Park Place West, Sunderland SR2 8HT.

Sunderland Antiquarian Society

The Secretary, The Sunderland Antiquarian Society, Sunderland Minster,
High Street West, Sunderland, SR1 3ET

<http://www.sunderland-antiquarians.org/>

Friends of Sunderland Museums

Tel: 0191 5293657 or 5532323

Teesside Archaeology Society

Chairman: Graeme Stobbs, 47 Hewitson Terrace, Gateshead, NE10 9HQ

Thorpe Thewles Heritage Group

TTHG Membership Secretary - 2, Mill Terrace, Thorpe Thewles, Stockton-on-Tees. TS21 3JS.

Tel: 01740 630014

Web: <http://www.thorpe-thewles.org.uk>

Email: tt.hg@virgin.net

West Rainton and Leamside Local History Group

<http://www.communiqate.co.uk/ne/historygroup/index.phtml>

Wheatley Hill History Club

Broadmeadows, Durham Road, Wheatley Hill, County Durham DH6 3LJ

Email: history.club2@btinternet.com

<http://www.wheatley-hill.org.uk/>

Whitburn Local History Group

Mrs S Reeder, The Barnes Institute, East Street, Whitburn SR6 7BY

Appendix 2. Metal Detecting Clubs and Societies

Dunelme Metal Detecting Club (meets in Ferryhill).

Contact Tommy Allinson threedrags@dunelme.fsnet.co.uk.
Tel 01740 654373

Gateshead Detecting Society

Contact Arthur Pattison. Jimpy3@blueyonder.co.uk

Northumbrian Search Society

Contact Brian Snowball 0191 581 3457 or Mike Bartley mike@romanremains.freeserve.co.uk

Tyneside Metal Detecting Association.

Contact Mel Hepple melx@tmda.co.uk
Tel 0191 4607458

Quakers Acres Metal Detector Club.

Contact Craig Allacher. craig@hotmail.co.uk

Freedom Searchers (sub group of Quakers Acres)

Contact Paul Harrison paul1@hotmail.co.uk
Tel 01325 355366

Appendix 3. List of Statutorily Protected Heritage Assets (Conservation Areas, Scheduled Monuments, Registered Parks and Gardens).

Conservation Areas within the Limestone Landscapes Study Area						
	Name	Unitary Authority	Conservation Area Appraisal?	Date of Appraisal	Conservation Area Management Plan?	Date of Plan
1	Aycliffe Village	County Durham	No	-	No	-
2	Bishop Middleham	County Durham	Yes	2009	No	-
3	Boldon (East)	South Tyneside	Yes	2006	Yes (draft)	2008
4	Boldon (West)	South Tyneside	Yes	2006	Yes	2007
5	Castle Eden	County Durham	No	-	No	-
6	Cleadon	South Tyneside	Yes	2007	Yes (draft)	2008
7	Cleadon Hills	South Tyneside	Yes	2007	Yes (draft)	2008
8	Cornforth	County Durham	Yes	2009	Yes	2009
9	Elwick	Hartlepool	No	-	No	-
10	Easington Village	County Durham	No	-	No	-
11	Hallgarth Pittington	County Durham	Yes	2009	Yes in CACA	2009
12	Hawthorn	County Durham	No	-	No	-
13	Heighington	Darlington	No	-	No	-
14	Kirk Merrington	County Durham	No	-	No	-
15	Middridge	County Durham	No	-	No	-
16	Old Cassop	County Durham	Yes (Draft)	2009	Yes in CACA	2009
17	Shadforth	County Durham	Yes	2006	No	-
18	Sherburn	County Durham	Yes	2008	No	-
19	Sherburn House	County Durham	No	-	No	-
20	Sildon	County Durham	Yes	2009	No	-
21	Trimdon Village	County Durham	No	-	No	-
22	Seaham	County Durham	No	-	No	-
23	Whitburn	South Tyneside	Yes	2006	Yes	2007
24	Windlestone	County Durham	No	-	No	-
25	Houghton	Sunderland	Yes	2007	Yes	2007
26	Whitburn Bents	Sunderland	Yes	2007	Yes	2007
27	Ryhope (The Green)	Sunderland	No (in preparation)	-	No (in preparation)	-
28	Newbottle	Sunderland	Yes	2009	Yes	2007

Registered Parks and Gardens

Windlestone Hall, County Durham. Grade II
 Castle Eden Dene, County Durham. Grade II,
 Mowbray Park, Sunderland. Grade II (urban).
 North & South Marine Parks and Bents Park, South Tyneside. Grade II (urban).
 Passmore Pavilion, Peterlee, County Durham. Grade II (urban)
 Roker Park, Sunderland. Grade II (urban)
 Ward Jackson Park, Hartlepool, Grade II (urban)

Scheduled Ancient Monuments

Durham

- 76 Ludworth Tower.
- 77 Middleham Castle, Bishop Middleham.
- 131 Priors Hall, Hallgarth Pittington.
- 20969 Garmondsway Deserted Medieval Village.
- 28549 Castle Eden, Medieval Village, moated site and early medieval timber building
- 30930 Haswell Colliery winding engine tower.
- 34581 Old Thornley Medieval settlement & field System.
- 34578 Old Wingate Medieval settlement.
- 34576 Daldon Tower.
- 34577 Sheraton Deserted Medieval Village.
- 34584 High Haswell medieval chapel.
- 32720 Shackleton Hill, Redworth. Iron-Age Hill fort and later tower windmill.
- 34579 Yoden, Deserted Medieval village (urban fringe).
- 34585 Coxhoe East House. Deserted medieval Village.
- 34586 Pig Hill, prehistoric settlement.

Tees

- HO24 Hartlepool, medieval town wall and Sandwell Gate (urban).
- HO30 Low Throston Deserted Medieval Village.
- 28560 Elwick Hall, Medieval Fishponds and field system.
- 34717 Hartlepool, Heugh Coastal artillery battery (urban).
- 32743 Hart, site of medieval great house.
- 32745 Hart, Medieval Fishponds.

Tyne & Wear

- TW4 Marsden Limekilns.
- 32074 Hylton Castle (urban).
- 32066 Monkwearmouth Anglo-Saxon Monastery and medieval priory (urban).
- 32044 Hasting Hill Round Barrow.
- 32055 Seven Sisters round barrow, Copt Hill.
- 32070 Hasting Hill, cursus and causewayed enclosure.
- 34835 Carley Hill, Fulwell. World War I early warning acoustic mirror.

Glossary of Terms used.

For further explanations of technical words look at the on line glossary provided at Keys to the Past. www.keystothepast.info

AASDN	Architectural & Archaeological Society of Durham & Northumberland
ALSF	Aggregates Levy Sustainability Fund
Cist	Pit dug into the ground and lined with stone often for a burial in prehistoric to Anglo-Saxon times.
Cursus	A long narrow rectangular earthwork enclosure of Neolithic date, usually defined by a bank and ditch and presumed to be of ceremonial function. Known examples range in length from less than 100m to c.10km
DMV	Deserted Medieval Village, a settlement which have been abandoned leaving only the remains of earthworks. Confusingly many of these villages are not completely deserted nor are they all medieval. Villages shrank in size or completely disappeared over a long period for many different reasons. Some declined after the Black Death, a deadly plague, killed many people in the 14th century. Often changes in the economy or farming practices led people to find other jobs than farming and move away to the towns. This happened at many villages in Northumberland and Durham, mainly in the 17th and 18th centuries. Occasionally, wealthy landowners deliberately moved villages because they thought that they spoil the view. They were then often rebuilt somewhere else.
EH	English Heritage, Government Agency responsible for the historic environment.
GIS	Geographical Information System (digital mapping)
HER	Historic Environment Record; database held by local authorities containing information on archaeology, listed buildings, historic landscapes etc. Available for public consultation.
Henge	Henges are circular enclosures marked out by an earth bank and an inner ditch. They often have one or two entrances. Sometimes internal pits or circles of post-holes can be seen. They are most common in the south of England, but are known in the North. The northern examples tend to be smaller. They are often found associated with a range of other monuments including barrows and processional avenues. They date to the Bronze Age (2500BC to 800BC) and were probably used for religious or ceremonial purposes
NE	Natural England, Government Agency responsible for the Natural Environment
NERRF	North East Regional Research Framework for the Historic Environment
NCA	Natural Character Area.
LLHEAAP	Limestone Landscapes Historic Environment Audit and Action Plan
LLP	Limestone Landscapes Partnership.

Patera	Shallow 'pans' often of bronze and with a handle used to burn precious herbs and spices as offering to deities, usually of Roman date.
Seax	Anglo-Saxon iron weapon resembling a short sword or long knife
SMR	Sites and Monuments Record, old name for HERS.
Stratigraphy/stratigraphic.	Observed layers of historic activity seen in archaeological contexts in simplest terms with the earliest at the bottom and the most recent at the top. A terms used by archaeologists to describe the study of layers of history in buried archaeological deposits and on occasion phases of historic development seen in the landscape.
Stycas	Anglo-Saxon coin
Votive	An offering of precious items or food to spirits or deities. A term often used when describing prehistoric hoards buried in the ground or deposited in caves or water.