16 RESEARCH AGENDA

The following research agenda are suggestions for further work on specific HLC data, or are themes to which the HLC could contribute. Most are taken from *Shared Visions: the North-East Regional Research Framework for the Historic Environment* published in 2006 (Petts 2006).

16.1 Coast

16.1.1 Key Research Priority

- ***The early medieval coast*** By understanding the movement of sand dunes, some insight might be gained into the post-depositional factors that may have affected any surviving deposits within the dune zone (for example Green Shiel, Lindisfarne; Bowl Hole, Bamburgh; Ebba's Chapel, Beadnell). It will also provide important conservation information, allowing stabilisation of mobile dunes (Petts 2006, 160, EMiv).

16.1.2 Research Strategy

- ***Dune systems*** Sea-level change and the shift in the coastline are note the only geomorphological events to occur in a coastal context. Along much of the north Northumberland coast lies a complex system of sand dunes which contain important archaeological remains (for example, the early medieval cemetery at Bowl Hole, Bamburgh); these have been highlighted as an area of high archaeological potential. It is clear, however, that sand dunes systems are complex entities prone to instability and sudden, large-scale shifts. This may have important consequences for recognising, dating and conserving sites in these areas. Further research on the geomorphology of these sand dunes and their movements should be a priority (Petts 2006, 203).

Recommendations
A regression map showing changing patterns of sand dune distribution, based on Ordnance Survey maps and aerial photographs, should be constructed. This may indicate areas of rapid change and significant stability and should be supplemented by a campaign of coring and palaeoenvironmental investigation (Petts 2006, 203, MT27).

16.2 Communications

16.2.1 Key Research Themes

- ***Early railways*** The North-East was a world leader in the development of early railways. This needs to be recognised in on-going research. … The courses of early railways should be plotted on the region's HERs. This will require archive research on early documentary and cartographic sources (Petts 2006, 180, PM2).

- ***Transport infrastructure and technology*** The North-East saw a transport revolution in the 20th century. The railways grew to their greatest extent before being substantially cut back, particularly following the Beeching cuts of the 1960s. The advent of the internal combustion engine also led to a massive expansion in the road infrastructure of the region. This embraced the construction of dual carriageways and motorways, the spread of out-of-town shopping centres and changes in the planning of housing including the widening of residential roads and the provision of garages and off-road parking. Other important changes included the rise of other forms of public transport. … In addition to the rise of public transport systems, there was also a rise and then fall in the spread of purpose-built industrial communication infrastructure, including light railways and shipping. The mundane nature of much of the surviving resource coupled with constant redevelopment mean, however, that this infrastructure is increasingly threatened. A series of base level desk-based assessments should gauge the extent of the survival of

transport-related features, including 20th-century railways (particularly focusing on those lines cut by Beeching) … and the small ports along the coast (Petts 2006, 192, MO4).

16.2.2 Key Research Priorities

- ***Industrialisation*** Railways: the wider context of railways, including their routes and their influence on the surrounding area [need further research] (Petts 2006, 185, PMii).

- ***Transport and communication*** English Heritage highlights the need for research into the expansion of the road system in the late 20th-century landscape (Petts 2006, 194, MOii).

16.3 Fieldscapes

16.3.1 Key Research Priorities

- ***Landscape*** There is extensive evidence for medieval field systems in the region, including well-preserved areas of ridge and furrow and upland terracing and lynchets, although there has never been a major inventory of all surviving examples and many are not recorded on the region's HERs (Petts 2006, 170, MDii).

- ***Industrial intensification 1790-1830*** Historic Landscape Characterisation will allow differing patterns of rural landscape to be recognised (Petts 2006, 187, PMviii).

16.3.2 Research Strategies

- ***Origin of agriculture in the region - field systems*** Field systems, whether surviving as upstanding hedges, walls and fences, or as archaeological features, such as cropmarks and earthworks, form the structural backdrop for all arable and pastoral farming n the region, except perhaps in the highest upland areas. Whereas the individual components of these field systems may be relatively short lived, it is clear that wider networks of fields may be in use for extremely long periods, showing clear signs of development and evolution over centuries. Equally, major periods of rupture and agricultural change may lead to ancient networks of field systems being removed wholesale (Petts 2006, 224).

Recommendations
- Surviving examples of ridge and furrow should be mapped on the ground and from aerial photographs and the results integrated into the region's HERs (Petts 2006, 224, AG4).
- Further fieldwork is required to record known lowland pre-Enclosure landscapes. It may be possible to identify such areas through the Historic Landscape Characterisation process (Petts 2006, 224, AG8).

- ***Transport and communication*** Long-term continuities in the communication infrastructure of the region have been little explored, yet the basic network of roads in the region appears to show significant levels of consistency over history. These similarities may be due to basic environmental factors, such as the limited number of passes through upland areas, though social and economic influences also merit investigation (Petts 2006, 224).

Recommendations
What was the impact of enclosure on local and informal routeways in the 18th and 19th centuries? (Petts 2006, 224, ID21).

16.4 Industry

16.4.1 Key Research Priority

- ***Industry*** Wider trends that characterise 20th-century industry could also be researched, for example, changes in the spatial organisation of industry, such as the switch from light industry in urban centres to the creation of specialist industrial and retail estates on the edge of towns (Petts 2006, 193, MOi).

Links to other agendas The English Heritage document *Change and Creation: historic landscape character 1950-2000* highlights the landscape elements of post-WWII industrialisation and de-industrialisation.

16.5 Ornamental, Parkland and Recreation

16.5.1 Key Research Theme

- ***Landscapes and Mansions of the 18th Century*** The 18th century was a period of great expansion of stately homes and their associated designed landscape. … Among the themes that might be considered are the 'Brownian landscapes' of Northumberland (Petts 2006, 181, PM5).

16.5.2 Research Strategy

- ***Planned landscapes*** Planned landscapes, including parks, gardens and cemeteries, form an important element of the landscape of the North-East. There is a need for increased research into all aspects of these important elements of the region's countryside and urban townscapes (Petts 2006, 210).

Recommendations

- The existing Register should be supplemented by a 'local list' of sites of regional, rather than national importance (Petts 2006, 210, L15).
- The major archival holdings relating to historic gardens in the North-East need to be identified. The most significant prints, maps and plans should be digitised in a format suitable for incorporation on GIS systems (Petts 2006, 210, L16).

16.6 Settlement

16.6.1 Key Research Themes

- ***North Pennine dales*** The North Pennines forms a distinctive post-medieval industrial zone. While lead mining was important from the medieval period onwards, its massive industrial expansion in the 18th and 19th centuries led to a profound transformation in the landscape and society of the area. Despite extensive research on the industrial archaeology of the lead industry significant new work is still required. It is important, however, to push beyond detailed investigation of the technological aspects of the industry and explore the social dimension of lead mining. For example, the pattern of company towns, miner-smallholdings and remote mine shops created a particular settlement landscape which was profoundly influenced by the industry, yet intimately bound up with co-existing upland agriculture, which was mainly dominated by sheep-farming (Petts 2006, 181, PM7).

- ***Settlement and planning*** From small estates to entire new towns, a significant development in settlement patterns in the 20th century was an increase in their planning. The construction of new residential areas was often carried out with a wider agenda of social engineering, although there was frequently a 'reality gap' between the vision behind their developments and the actuality of life within them. Unlike some areas of Britain, the areas of new, planned development and new towns are discrete, and provide legible units for study. There is an extensive archive of plans, maps and aerial photographs in the region's record offices, clearly demonstrating the development of

these planned settlements. These sources could be combined with fieldwork and oral history to explore how planned space was used and organised by those who lived within them. There is particular potential for some research to feed into English Heritage's Change and Creation project on landscapes 1950-2000 (Petts 2006, 191-2, MO3).

16.6.2 Key Research Priorities

- ***Industrialisation*** Existing work on the industrial processes related to the lead industry should be supplemented by further research into the wider social landscape. We should investigate the relationship between industry and other economic aspects of society, for example, in the miner-farmer landscapes of the North Pennines. It is important to develop a better understanding of the variation within industrial areas, for example, the difference between the Blackett-Beaumont and London Lead Company mining areas, and with those lead-mining areas not dominated by any big company (Petts 2006, 183 and 196, PMii).

- ***Housing*** Basic work should characterise variations in 20th century housing in terms of use of space, road networks and public space. This might be incorporated directly into the Historic Landscape Characterisation projects or related schemes such as Change and Creation (Petts 2006, 196, MOviii).

Links to other agendas English Heritage stress the need for research into post-1950 landscapes (Petts 2006, 196).

16.6.3 Research Strategies

- ***Settlement in the landscape morphology*** Settlement do not exist in a spatial void, they are embedded within complex human landscapes. A better understanding is needed of the extent of regional variation in these patterns. This variation has been clearly demonstrated in the work of Brian Roberts on medieval rural settlement. The provincial boundaries noted by Roberts, however, are relatively coarse-grained. For example the Cheviots and North Pennines are lumped into one main province, although these areas in fact show an immense variation in settlement planning, even between individual dales. At the very least there is a need to differentiate between upland areas that were involved in lead mining and those which were not. Roberts' work was based on the First Series Ordnance Survey maps and thus does not tackle the changing nature of settlement since the mid-late 19th century. Since the 1850s, however, the region has seen many changes in settlement form, including the growth of distinctive regional settlement types [such as the colliery villages of the Durham coalfield] (Petts 2006, 206-7).

Recommendations

- Historic Landscape Characterisation has real potential for teasing out variation at a micro-regional level (Petts 2006, 206-7, SU5).
- Although current consensus suggests HLC work uses first edition 6 inch OS maps as the base from which to work, in areas which have seen extensive industrial activity it may be appropriate to use later maps or create a series of regression maps covering the late 19th and 20th centuries, possibly at 25 year intervals (Petts 2006, 206-7, SU6).

- ***Towns: chronological changes*** The towns and cities of the region all have their own individual character. Like all landscapes, whether urban or rural, their development has been marked not only by phases of accumulation of buildings and occupation deposits, but also by their destruction. In towns these phases of accumulation and destruction occur on vastly larger scales than in the countryside, ranging from the construction and then clearance of vast areas of 'slum' housing to the construction of post-medieval town houses with their deep cellars which destroy earlier remains. The density of activity in urban areas often makes it difficult to assess the survival of earlier phases of urban activity (Petts 2006, 206-7).

Recommendations

Our understanding of the spatial development of the region's towns must be improved. Whilst the existing extensive urban surveys offer an initial base point for this work, more detailed work should draw on the methodological techniques developed for Historic Landscape

Characterisation, but be tailored to tackle the complexities and rate of change in urban contexts and ensure that they cover the 20th century. These urban mapping projects should take advantage of GIS technology (Petts 2006, 206-7, SU13).

16.7 Woodland

16.7.1 Key Research Priority

- ***Agriculture*** Patterns of forestry have changed profoundly in the 20th century. Although the collapse of the colliery industry meant a decline in the demand for pit props, there has been an expansion in the use of softwoods for wood pulp and chipboard. Major forests, such as Kielder, also have a significant role as leisure areas. Modern forest landscapes demand proper recording, with particular notice being taken of evidence for the infrastructure of the forestry industry, such as forest rides, fences, fire towers, etc (Petts 2006, 194, MOiii). There is a need to ensure full recording of reservoir and forestry infrastructure on the region's HERs.

16.7.2 Research Strategy

- ***Woodland Management*** Forests and woodland were an important part of the agrarian landscape from earliest times, but relatively little is known about the varying patterns of woodland management and forestry techniques in the North-East. Basic research should be carried out to establish historic patterns of woodland (Petts 2006, 216).

Recommendations

- Historic Landscape Characterisation should be used as a basis for mapping historic woodland. Where available this should be supplemented by earlier cartographic evidence (estate and enclosure maps) and place-name evidence (Petts 2006, 216, AG14).
- A project should explore the relationship between the coal industry and the demand for wood for pit props. This should build on the model developed by *Fuelling a Revolution* in Sheffield (Petts 2006, 216, AG17).