9. THE MODERN PERIOD (1750 TO PRESENT): UPDATED RESEARCH AGENDA

9.1 Urban and rural settlements

1. How have industrialisation and population growth impacted upon settlement patterns and the agricultural economy?
2. How have established and nascent settlements developed in terms of their morphology, internal organisation and functions, and how far may land ownership and legislative controls have influenced development?
3. How have settlements expanded beyond their historic cores (e.g. suburban growth, peripheral housing estates and industrial parks)?
4. What impact have co-operative movements and paternalism had on the social, economic and physical development of settlements?
5. How have the expanding public utilities impacted upon development (particularly those relating to waste management)?
6. How far may urbanisation and industrialisation have enhanced living conditions and diet (e.g. from assessment of environmental data)?

9.2 Buildings in town and countryside

1. Can we establish a typology of modern buildings, particularly of the 20th century, and how does this vary regionally?
2. How have building types changed (e.g. adaption of industrial buildings to new uses) and what has been the impact of building regulations?
3. How have mass housing developments and civic or public buildings such as prisons, schools and workhouses influenced settlement growth?
4. To what extent are issues of power, control and status reflected in regional building types?

9.3 Cultural diversity and religion

1. What has been the impact of cultural diversity upon the buildings record, settlement development and industrial and commercial growth, especially in Leicester, Nottingham and Northampton?
2. What is the range and nature of religious buildings, how do these vary between religious faiths, and how have buildings been adapted for use by different religious groups?
3. How can we establish a typology of church and chapel styles, including internal furnishings, decoration and monuments?
4. What may be deduced from cemetery studies about changing attitudes to burial and remembrance and evolving funerary architecture?

9.4 The transport infrastructure

1. What linear transport features, river/canal craft and associated structural remains have survived, and how does this vary regionally?
2. What roles have different transport systems played in the development of industry, commerce, agriculture and settlement?
3. How has the relationship between linear transport systems developed over time (e.g. shift from canal to rail transport)?
4. Can associated construction sites be identified (e.g. navvy camps)?
5. What impact has airport development had upon the landscape and transport infrastructure?

9.5 Estates, parks, gardens and woodland

1. What was the social role and influence of country houses and estates?
2. What survives of country estates, parks and gardens, how are they distributed, and how should they be classified?
3. Can we establish a typology of buildings and other structures associated with country estates, parks and gardens (e.g. estate villages)?
4. How may élite landscapes have influenced municipal park designs?
5. How was woodland managed and exploited for industrial use, and what is the range of surviving evidence?
6. How have recreational activities, including gentry pursuits such as fox hunting and game shooting, impacted upon landscapes and buildings?

9.6 Agriculture

1. What was the impetus for the development of estate farming and rural agricultural industries, and what has been the landscape impact?
2. How did Parliamentary enclosure and other agricultural improvements (e.g. water management) impact upon the rural landscape?
3. What was the role and distribution of planned, model farms?
4. How can archaeology contribute to studies of the changing aspirations of the rural working classes (e.g. provision of allotments and schools)?
5. What changes and improvements have occurred in animal husbandry and use (e.g. new breeds, traction and traded animal products)?
6. What crops and garden plants have been recorded in the countryside and urban market gardens, and what innovations may be identified?

9.7 The growth of industry

1. What craft industries existed prior to 1850 and can we identify the remains of associated buildings and other structures?
2. How have agricultural processing industries such as brewing, malting and milling developed, and what structural remains have survived?
3. How can we enhance our records of mines and surface features associated with extractive industry (especially coal and lead; also ironstone, slate, limestone, sand/gravel, gypsum and clay) and their relationship to markets, settlements and transport?
4. How can we develop further our understanding of brick-making and the manufacture of pottery, tiles and clay pipes?
5. How did the wool, cotton, hosiery and lace mills and their water management systems fit into the economic landscape, and how did the relationship between home and factory production vary?
6. Can we elucidate further the development and organisation of the Northamptonshire and Leicestershire boot and shoe industry?

9.8 Military sites

1. Can we establish a typology of surviving post-1750 military remains?
2. How are military sites distributed across the region?
3. What impacts have military developments had upon settlement development, landscapes, industry and transport?

9. THE MODERN PERIOD (1750 TO PRESENT): RESEARCH OBJECTIVES

Updated Research Agenda / Research Objectives	**9.1**. Urban and rural settlements						**9.2** Building developments				**9.3** Cultural diversity and religion				**9.4** The transport infrastructure					**9.5** Estates, parks, gardens and woodland						**9.6** Agriculture						**9.7** The growth of industry						**9.8** Military sites		
	1	2	3	4	5	6	1	2	3	4	1	2	3	4	1	2	3	4	5	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3
9A Assess urban building types of the early twentieth century	•	•	•				•	•																															
9B Before the grid: examine early development of public utilities	•	•			•	•																																	
9C Investigate the development of social and religious building types											•	•	•	•																									
9D Assess development of rivers for communications and power															•	•	•	•																	•				
9E Assess the role and landscape impact of woodland industries																								•								•							
9F Explore the landscape legacy of fox-hunting and other country leisure pursuits																				•		•			•														
9G Assess the landscape resource for the early industrialisation of agriculture							•	•		•												•				•							•						
9H Provide strategic directions and information for agri-environment schemes							•	•				•										•			•			•	•				•	•	•		•	•	•
9I Investigate the industrialisation of the Derwent Valley	•	•		•		•	•	•	•	•					•	•	•															•	•			•		
9J Explore evidence for continuing non-factory trades and industries	•	•	•				•	•																								•				•	•			
9K War in the towns: research the urban infrastructure of war		•	•				•	•																														•	•	•

Research Objective 9A
Assess urban building types of the early twentieth century

Summary:
Conservation Area designations[1] go some way to protecting townscapes where there are coherent groups of buildings, but are less often applied to areas where the identity of buildings is not clear and where attrition has brought gaps and 'unwelcome' intrusions into the townscape[2]. As a result, some types of building - especially small-scale industrial buildings - are poorly protected, little understood or appreciated, and subject to continued threat by demolition. Typically, these occur in areas that were developed in the inter-war years and are now sandwiched between the nineteenth century suburbs and the twentieth century business park. These locales can also contain early industrial structures made from materials which, although mass-produced, nevertheless retain local distinctiveness. Examples include concrete walling, asbestos and tinplate roofing, together with steel roof trusses. These areas rarely form part of Conservation Areas and are generally subject to piecemeal redevelopment. There is a need to review the industrial building types of these areas in order to establish effective continuing management regimes and to inform the Historic Area Appraisals which are now being advocated by English Heritage. The Research Objective could be extended to other types of twentieth century building, such as public houses or banks, with the aim of identifying structures of intrinsic interest that might be vulnerable to demolition.

Agenda topics addressed: 9.1.1, 9.1.2, 9.1.3, 9.2.1 and 9.2.2.

East Midlands Resource Assessment and Research Agenda: 242, 257.

English Heritage SHAPE sub-programmes: 11111.130 and 11111.150.

References:

[1] http://www.english-heritage.org.uk/protecting/heritage-protection/local/conservation-areas/

[2] For the conservation context of modern buildings see Campion, G. 2006 The Modern period, in Cooper, N.J. (ed) *The Archaeology of the East Midlands*, 238-239; for recommendations re. buildings generally, see *ibid.* 242—243.

Research Objective 9B
Before the grid: examine the early development of public utilities

Summary:
The industrialisation of town and country[1] and advances in public health and quality of life[1] were accelerated by the provision from the nineteenth century of piped water, gas, electricity and sewerage facilities. Several valuable reviews of this subject are available[3,4], including syntheses produced as part of the Monuments Protection Programme[5,6]. However, the massive scale of later provision has obliterated much early evidence, which it is suggested should be sought for and recorded to elucidate the earliest phases of development. Water was provided in the eighteenth century from wells, pumps, streams and ponds, sometimes via semi-culverted courses that may have served both people and animals, and piped water supplies and associated structures[7] only developed from the mid-nineteenth century, together with sewerage facilities. Local gasworks, which provided power principally for domestic and street lighting, emerged as features of the urban scene from the 1820s, often close to the railway that brought the coal supplies. The major rivers of the East Midlands enabled large-scale production of electricity from the 1890s[8], augmented by electricity from gasworks; this provided power to urban areas, but many rural areas did not have electricity until the National Grid was established in 1947[9]. It is recommended that surviving physical evidence for the earlier phases of utility provision be identified and recorded in order to clarify the early history of public utilities and to permit assessment of variations between town and country and across the region.

Agenda topics addressed: 9.1.1, 9.1.2, 9.1.5 and 9.1.6.

East Midlands Resource Assessment and Research Agenda: 244, 257.

English Heritage SHAPE sub-programme: 11111.170.

References:

[1] Beckett, J.V. 1988. *The East Midlands from AD1000.* London: Longman, 274-298

[2] Beckett 1988, 244-246.

[3] Palmer, M. and Neaverson, P. 1992. *Industrial Landscapes of the East Midlands,* Chichester, Phillimore.

[4] Cossons, N. 1993 (3rd ed). *The BP Book of Industrial Archaeology*, Newton Abbott, David and Charles, 215-234.

[5] Schofield, J. 2000. *MPP 2000: A Review of the Monuments Protection Programme, 1986-2000*. London, English Heritage.

[6] Notably Trueman, M. 1995. MPP: Electric Power Generation. Step 3 Report; Trueman, M. 2000. MPP: Water and Sewage Industries. Step 3 Report; Trueman, M. 2002. MPP: Gas Industry. Step 3 Report (MPP reports for English Heritage)

[7] e.g. pumping stations; notably at Bestwood and Papplewick, Nottinghamshire: Palmer and Neaverson 1992, 111.

[8] e.g. Northampton Electric Light and Power Company: Campion, G. 2006. The Modern period, in Cooper, N.J. (ed) *The Archaeology of the East Midlands*, 244.

[9] Campion, 2006, 244.

Research Objective 9C
Investigate trends in social and religious building forms

Summary:

Early Ordnance Survey maps of the East Midlands show large numbers and a high turnover of chapel buildings during the nineteenth and early twentieth centuries, particularly in the developing industrial settlements of areas such as the Nottinghamshire and Derbyshire coalfields[1]. Detailed survey and analysis of the many Methodist and other non-conformist chapels and meeting places that developed in industrial towns and villages from the eighteenth century[2] would add usefully to our understanding not only of changing architectural styles but also the relationship of these buildings to the industrial communities that they served and the impact of religious denominations upon settlement growth[3]. Survey could usefully be extended to associated cemeteries and to the wide variety of community and other social buildings that characterise these communities, including schools, miners' baths, public houses, social clubs, and cinemas[4]. Taking a broader perspective, this Objective could also be developed to consider the impact of ethnic groups upon the religious architecture of multicultural centres such as Nottingham, Leicester, Loughborough and Northampton[5].

Agenda topics addressed: 9.3.1, 9.3.2, 9.3.3 and 9.3.4.

East Midlands Resource Assessment and Research Agenda: 243, 257.

English Heritage SHAPE sub-programme: 11111.170.

References:

[1] Beckett, J.V. 1988. *The East Midlands from AD1000*. London: Longman, 256-259.

[2] Developing from recent surveys of non-conformist chapels and meeting places: Stell, C. 1986. *Nonconformist Chapels and Meeting Houses in Central England*, Royal Commission on the Historical Monuments in England (includes chapels in the historic counties of Derbyshire, Leicestershire, Northamptonshire, Nottinghamshire and Rutland); Stell, C. 2001. *Nonconformist Chapels and Meeting Houses in Eastern England*, English Heritage (includes historic county of Lincolnshire); see also http://www.buildinghistory.org/buildings/chapels.shtml.

[3] Campion, G. 2006. The Modern period, in Cooper, N.J. (ed) *The Archaeology of the East Midlands*, 243.

[4] Beckett 1988, 249-256; e.g. the pioneering early 20th century school buildings of George Widdows, appointed architect to Derbyshire County Council in 1910:http://www.c20society.org.uk/botm/archive/2009/ilkeston-school-derbyshire.html.

[5] Campion 2006, 242.

Research Objective 9D
Investigate the development of rivers for communications and power and their relationship to other transport networks

Summary:
Industrial development during the eighteenth century led to the increased use of East Midlands rivers such as the Nene and the Trent for the transport of goods and for the generation of power[1], embracing thereby two functions which were not always compatible[2]. Early use of the minor rivers, such as the Derbyshire Wye, was succeeded from early in the eighteenth century by improvement works carried out on the Nene[3] and Trent[4]. In addition to documentary sources, archaeological evidence for navigation improvement and water management takes a surprising variety of forms, ranging from canal cuts and channels, flood-banks and spoil from river dredging, weirs, locks, wharfs, sunken boats and boatyards to warehouses and bridges[5]. The rivers were important for moving and distributing not only the products of the extractive industries, especially coal and lead, but also the products of agriculture, such as grain and timber, and those of rural and urban industry, such as pottery, brick and tile, and hence were pivotal to the industrialisation of the region. There is also considerable scope for investigating the relationship of river transport to other linear transport networks, including canals not forming parts of improved waterways, turnpike roads, horse-drawn tramways and, from the nineteenth century, the developing railways[6-8].

Agenda topics addressed: 9.4.1, 9.4.2, 9.4.3, 9.4.4 and 9.7.5.

East Midlands Resource Assessment and Research Agenda: 234, 257.

English Heritage SHAPE sub-programmes: 11111.150 and 1111.170.

References:

[1] e.g. Derwent and WyeValleys: see Objective 9I.
[2] Courtney, P. 2006. The Post-Medieval period, in Cooper, N.J. (ed) *The Archaeology of the East Midlands*, 229.
[3] Alsop, J.D. 1986. The development of inland navigation on the River Nene in the early 18th century, *Northamptonshire Past and Present* 7, 161-163.
[4] Wood, A.C. 1950. The history of trade and transport on the River Trent, *Transactions Thoroton Society* 54, 1-44.
[5] Hudson, K. 1966. *Industrial Archaeology: An Introduction*, 126-132.
[6] Beckett, J.V. 1988. *The East Midlands from AD1000*. London: Longman, 260-274, 327-330.
[7] Palmer, M. and Neaverson, P. 1992. *Industrial Landscapes of the East Midlands*, Chichester, Phillimore.
[8] Leleux, R. 1984. *A Regional History of the Railways of Great Britain: IX: The East Midlands* (2nd ed.), Newton Abbott, David and Charles.

Research Objective 9E
Assess the role of woodland industries

Summary:
A broad range of woodland industries, persisting as important components of the rural economy into the early twentieth century[1], may be deduced from documentary, ecological and archaeological sources. The field evidence includes woodland boundaries, engineered woodland tracks, pollarded and coppiced trees at production sites, sawmills at timber processing sites and the often small-scale industrial sites where the timber products were used[2, 3]. Demand shifted during the course of the period away from the substantial oak timbers that were required up to around 1850 for building and shipbuilding towards light wood and timber products, and particularly close links may be demonstrated from the 1780s with the developing leather industry (which relied upon oak bark for tanning, obtained principally from sources in Rockingham and Sherwood Forests[4]). Strong local traditions may be demonstrated, exemplified by a focus upon willow basket and container manufacture in the Leicestershire and Nottinghamshire Trent Valley[5]. There is significant scope for elucidating further these traditions and for clarifying by further field survey woodland management practices and the distribution of saw mills, wood yards and other physical traces of woodland industries such as charcoal and white-coal (kiln-dried wood) production[6]. Important features may survive in woodland not yet surveyed in detail and in other landscapes comparatively unscathed by later developments (especially the parklands attached to large country houses such as Chatsworth in Derbyshire[7] and Castle Ashby in Northamptonshire[8]).

Agenda topics addressed: 9.5.5 and 9.7.1.

East Midlands Resource Assessment and Research Agenda: 246,257.

English Heritage SHAPE sub-programmes: 11111.150 and 11111.170.

References:

[1] Campion, G. 2006. The Modern period, in Cooper, N.J. (ed) *The Archaeology of the East Midlands*, 246.

[2] Watkins, C.1990. *Woodland Management and Conservation*, 39-55.

[3] Rackham, O. 1987. *The History of the English Countryside*, 62-118.

[4] Campion 2006, 246.

[5] Cousins, R. 2007. *A Basketful: Willow growing and Basketmaking in Nottinghamshire and Lincolnshire*: Nottinghamshire County Council and Heritage Lincolnshire.

[6] Crossley, D. 1990. *Post-Medieval Archaeology in Britain*, Leicester: Leicester University Press, 22-24, 189-191.

[7] Barnett, J. and Williamson, T 2005. *Chatsworth: A Landscape History*, Windgather Press; Barnatt, J. and Bannister, N. 2009. *The Archaeology of a Great Estate: Chatsworth and Beyond*, Windgather Press.

[8] Campion2006, 246.

Research Objective 9F
Explore the landscape legacy of fox-hunting and other country leisure pursuits

Summary:
The increasingly efficient and productive agricultural landscape of the nineteenth century also provided the locale for fox-hunting and other leisure pursuits, although the history of investigation has tended to focus on the contemporary agricultural use of the countryside[1]. Finch has drawn attention to the ways in which fox-hunting influenced the construction of the nineteenth century landscape, leading to the establishment of coverts of low scrub cover, modifications to hedges and the development of kennels for hounds[2]. Today, the over-grown fox coverts constitute an important historic woodland resource that is largely neglected by Historic Environment Records[3]. Further research is needed into the history of establishment of the coverts, the uses to which they were put, and the ecological and landscape resource that they now offer. Ancillary research into the landscape and social history of fox-hunting and other contemporary sports such as duck and game shooting would allow the identification of associated small and large-scale landscape features[4] such as fowling decoys and the distinctive earthen and stone-built shooting butts that are intermingled with Bronze Age cairns and hut circles across the East Moors of Derbyshire[5].

Agenda topics addressed: 9.5.1, 9.5.3 and 9.5.6.

East Midlands Resource Assessment and Research Agenda: 246,257.

English Heritage SHAPE sub-programmes: 11111.150 and 11111.170.

References:

[1] Campion, G. 2006. The Modern period, in Cooper, N.J. (ed) *The Archaeology of the East Midlands*, 246.
[2] Finch, J. 2004. 'Grass, grass, grass': fox-hunting and the creation of the modern landscape, *Landscapes* 5, 41-52.
[3] Finch, J. 2007. 'Wider famed countries': historic landscape characterisation in the Midland shires, *Landscapes* 8, 50-63.
[4] Jones, E.L. 2009. The environmental effects of blood sports in lowland England since 1750, *Rural History, Culture and Society* 20, 51-66.
[5] http://www.peakdistrict-nationalpark.info/time/moors/ grazing.html.

Research Objective 9G
Assess the landscape resource for study of the early industrialisation of agriculture

Summary:
There has been little research into the physical impact of the early industrialisation of agriculture, which took place at a much slower rate than in industry[1-2]. During the nineteenth century, horse gins in distinctive housings powered mills to produce food for horses and livestock, while from the second half of the nineteenth century arable agriculture was revolutionised by steam ploughing. The latter entailed the use of wide, straight headlands for traversing by engine, and created a distinctive pattern of straight ridge-and-furrow contrasting with the wider, sinuous features that characterise relics of the medieval open field system[3]. Because of the cost and complexity of the process, steam ploughing was often undertaken by contractors. However, the advent of paraffin and diesel-engined tractors after World War I brought mechanisation on a large scale, and with it engine sheds and fuel tanks in place of stables and fodder stores. The internal combustion engine also allowed dairying to be industrialised, and from early in the twentieth century new milking parlours were built and fitted with oil-engined milking machines. All these features of a nascent period of agricultural development are increasingly disappearing with no record, while those that have survived the modernisation of the later twentieth century are being removed during the conversion of farms into house complexes. Such trends emphasise the importance of instigating now a systematic regional survey of this dwindling evidence for early industrialisation of the farming economy.

Agenda topics addressed: 9.2.1, 9.2.2, 9.2.4, 9.5.3, 9.6.1 and 9.7.2.

East Midlands Resource Assessment and Research Agenda: 247, 257.

English Heritage SHAPE sub-programmes: 11111.150 and 11111.170.

References:

[1] Campion, G. 2006. The Modern Period, in N.J. Cooper (ed) *The Archaeology of the East Midlands,* 246-247.

[2] Beckett, J.V. 1988. *The East Midlands from AD1000*. London: Longman, 200-208.

[3] Haining, J. and Tyler, C. 1970. *Ploughing By Steam*, 96-117; Bowen, H.C. 1961 *Ancient Fields*, 46-50; Anderton, M. and Went, D. 2002 Turning the plough: loss of a landscape legacy, *English Heritage Conservation Bulletin* 42, Rural Matters, 52-55.

Research Objective 9H
Characterising the rural environment: provide strategic directions and information for agri-environment schemes

Summary:
Although agri-environment schemes have for many years paid attention to archaeological features, they have been much less concerned with agricultural impacts on land-holdings in general and with minor buildings and historic landscape features[1]. Many of the latter, such as roadside horse troughs, milk churn stands and the vitally important dew ponds of upland Derbyshire, may elude Historic Environment Records, and may be lost without record as a consequence of agricultural improvements or other developments. There is a pressing need, therefore, to develop a strategy to identify and safeguard the range of features that might be anticipated in rural contexts and to quantify the anticipated variability between geological and topographic zones[2]. This could usefully accompany an extension of vernacular buildings surveys, carried out to the level recommended by the Society for the Protection of Ancient Buildings (SPAB)[3] and including farmhouses, estate buildings, barns and other specialist agricultural buildings. Coverage of the vernacular building resource is sporadic across the region, and the level of detail is variable. Some areas have a high level of baseline coverage but few detailed recordings - for example in Nottinghamshire, where SPAB-compliant surveys have been carried out for only *c.*15% of historic farmsteads[4]. This limits assessment of architectural details and local distinctiveness (for example in barn ventilation slot arrangements, types of roof structures and the internal configurations of farm buildings) and hence studies of historic landscape character.

Agenda topics addressed: 9.2.1, 9.2.2, 9.3.2, 9.5.3, 9.5.6, 9.6.3, 9.6.4, 9.7.2, 9.7.3, 9.7.4, 9.8.1, 9.8.2 and 9.8.3.

East Midlands Resource Assessment and Research Agenda: 247.

English Heritage SHAPE sub-programme: 11111.150 and 11111.170.

References:

[1] Knight, B. 2007. Rural Development Agencies and rural heritage, *English Heritage Conservation Bulletin* 54 Rural Landscapes, 29-31.

[2] Campion, G. 2006. The Modern period, in Cooper, N.J. (ed) *The Archaeology of the East Midlands*, 246-247.

[3]Campion, G. 2006 The Modern period, in Cooper, N.J. (ed) *The Archaeology of the East Midlands* Oxley, R. 2010. Survey and Repair of Traditional Buildings, Donhead.

[4] Nottinghamshire County Council Historic Environment Records; source: J. Mordan.

Research Objective 9I
Investigate further the industrialisation of the Derwent Valley

Summary:
A string of cotton mills was established in the eighteenth century along 24 km of the Derwent Valley between Matlock and Derby, each of which was larger in scale, output and labour force than any earlier industrial undertaking. The change from water to steam power in the nineteenth century caused the foci of industry to shift elsewhere, with the result that many mill buildings, associated workers' houses, canals, dismantled railway lines and other landscape features such as quarries for the manufacture of millstones and grindstones have survived. Despite the critical importance of this area to the development of the industrial revolution, and its designation in 2001 as a World Heritage Site, the Derwent remains significantly less well known than the site of early iron smelting in Ironbridge Gorge[1-2]. Valuable surveys have been completed of individual mills and ancillary structures[3], while Conservation Area status has contributed to the protection of individual structures, but the area would benefit from further investment in public information and interpretation facilities. In addition to the need to make more information generally available, historic landscape features relating to the infrastructure of industry and the supporting agricultural landscape should be assessed for their potential to illuminate the context of the industrialisation of the textile industry[4].

Agenda topics addressed: 9.1.1, 9.1.2, 9.1.4, 9.1.6, 9.2.1, 9.2.2, 9.2.3, 9.2.4, 9.4.1, 9.4.2, 9.4.3, 9.7.1, 9.7.2 and 9.7.5.

East Midlands Resource Assessment and Research Agenda: 251, 257.

English Heritage SHAPE sub-programme: 11111.130 and 11111.150.

References

[1] For Ironbridge Gorge, see Clark, C. 1993 *English Heritage Book of Ironbridge Gorge*; Stratton, M. 1994 *Ironbridge and the Industrial Revolution.*

[2] For the Derwent Valley, see Derwent Valley Mills Partnership 2001 *The Derwent Abbey Mills and Their Communities;* Menuge, A. 1993 The cotton mills of the Derbyshire Derwent and its tributaries, *Industrial Archaeology Review* 16, 38-61; Stocker, 2006, *The East Midlands*, 162-163.

[3] A detailed consideration of Darley Abbey Mill is contained in Menuge, A. 2006 *Boar's Head Mills, Darley Abbey, Derby: A Survey and Investigation of the Cotton Mills and Ancillary Buildings*, English Heritage Research Department Report Series 35/2006.

[4] As conducted for the Ironbridge Gorge: Alfrey, J. and Clark, C. 1993 *The Landscape of Industry: Patterns of Change in the Ironbridge Gorge.*

Research Objective 9J
Explore the evidence for continuing non-factory trades and industries

Summary:
The pace of industrialisation in the East Midlands varied considerably from one industry to another, with the early application of water-power to textile spinning contrasting with the long-lasting small scale of industries such as hosiery and boot and shoe manufacture[1-2]. Framework knitting outworking in houses and workshops continued from the mid-eighteenth century until the later nineteenth century in areas of Derbyshire, Leicestershire and Nottinghamshire[3]. Boot and shoe manufacture continued under a similar outworking system over much the same period, and was especially important in Leicestershire and Northamptonshire[4-5] There is a need for further scrutiny through a variety of techniques of the methods of the small-scale industries. Archaeology can illuminate the scale and use of buildings and associated rubbish deposits, economic and demographic factors, and the topographical context, but input is also required from economic historians and geographers when examining many aspects of more recent archaeology. Building analysis can also provide insights into the arrangement of industrial and domestic functions and hence contribute to a more detailed understanding of social heritage.

Agenda topics addressed: 9.1.1, 9.1.2, 9.1.3, 9.2.1, 9.2.2, 9.7.1, 9.7.5 and 9.7.6.

East Midlands Resource Assessment and Research Agenda: 251-253, 257.

English Heritage SHAPE sub-programme: 11111.150.

References:

[1] Campion, G. 2006. The Modern period, in Cooper, N.J. (ed) *The Archaeology of the East Midlands*, 251-253

[2] Beckett, J.V. 1988. *The East Midlands from AD1000*. London: Longman,

[3] Chapman, S.D. 2002. Hosiery and knitwear: four centuries of small-scale industry in Britain c.1589-2000, *Pasold Studies in Textile History* 12.

[4] Stocker, D.A. 2006. *England's Landscape: The East Midlands*, 164-165.

[5] Campion, G 2001. People, process, power and place: an archaeology of control in East Midlands outworking 1820-1900, in Palmer, M. and Neaverson, P. (eds) *From Industrial Revolution to Consumer Revolution: International Perspectives on the Archaeology of Industrialisation., Papers of the TICCIH 2000 Congress*, 75-84.

Research Objective 9K
War in the towns: research the urban infrastructure of war

Summary:

The East Midlands preserves an extensive range of remains relating to wartime defence, including in particular airfields dating from World Wars I and II and the Cold War period, pill boxes, communal bunkers and anti-aircraft batteries and searchlight emplacements[1]. These have attracted significant survey and recording in recent years[2-4], but the urban infrastructure of war is much less well researched and significantly less well known. Unglamorous buildings and developments such as barracks and drill halls, factory extensions and storage depots, often on the urban fringe, are all in need of recording, the more so because construction plans and other information are often not available. All are vulnerable to redevelopment, and recording would contribute valuable data to the Historic Environment Records that underpin the planning system and assist future academic enquiry.

Agenda topics addressed: 9.1.2, 9.1.3, 9.2.1, 9.2.2, 9.8.1, 9.8.2 and 9.8.3.

East Midlands Resource Assessment and Research Agenda: 256-257.

English Heritage SHAPE sub-programme: 11111.150 and 11112.410.

Other specialist period/subject research strategies:
Schofield, J. 2004. *Modern Military matters. Studying and managing the twentieth century defence heritage in Britain: a discussion document*, York, CBA, 38: A4 (civil infrastructure).

References:
[1] Campion, G. 2006 The Modern period, in Cooper, N.J. (ed) *The Archaeology of the East Midlands*, 254-257.
[2] See papers in English Heritage's *Conservation Bulletin* 44, 2003: The Archaeology of Conflict.
[3] Brown, I., Burridge, D. Clark, D., Guy, J., Hellis, J., Lowry, B., Ruckley, N. and Thomas, R. 1995. *20th Century Defences in Britain: An Introductory Guide*, CBA Practical Handbooks in Archaeology 12.
[4] Schofield 2004.