POST-MEDIEVAL PERIOD: RESOURCE ASSESSMENT UPDATE

By Ian Miller
With contributions from Mark Brennand, Peter Iles, Mark Leah and Norman Redhead

1. Introduction


The Reformation and the associated Dissolution of the monasteries during the 1530s have been taken for the purposes of the present update to represent the key events that signalled the onset of the Post-Medieval period which, in broad terms, continued to the mid-18th century. This period witnessed the transformation of the North West from a relatively impoverished and sparsely populated backwater to a key region in the early stages of Britain’s industrialisation and globalisation, and the cultural developments of this era laid the foundations for the radical changes to society and the environment that followed.

A huge volume of data for human activity across the region during the Post-Medieval period has been gathered during the last ten years, reflecting the vast amount of archaeological work that has been undertaken in response to an accelerated pace of development, particularly since 2012, coupled with the introduction of more robust legislation that requires the historic environment to be a material consideration in the planning system, initially as Planning Policy Statement 5 (PPS5) and latterly as the National Planning Policy Framework (NPPF). Another factor is perhaps a widespread recognition and appreciation of the importance and potential of Post-Medieval archaeology, stimulated in part by the publication of the original Research Framework and the associated research objectives. This has been enhanced by research strategies devised by a number of professional bodies and societies, such as the Association for Industrial Archaeology and the Society for Post-medieval Archaeology, which produced a joint volume on current and future research directions in post-1550 archaeology (Horning and Palmer 2009). Similarly, the Historical Metallurgy Society has published a research framework that presents research themes pertinent to Post-Medieval metal-working trades, together with useful sections on technological development (Bayley et al 2008), whilst the National Association for Mining History Organisations (NAMHO) published a research framework document in 2016 that provides overviews of different minerals such as coal, stone, sand and clay, together with a research agenda (Newman 2016).

In addition to developer-funded projects, the early 21st century has also seen an accelerated growth of community-led archaeology. This has often enabled the intrusive investigation of sites that are unlikely to be affected by development, exemplified by the series of excavations undertaken as part of the ‘Dig Greater Manchester’ project in 2005-09, some of which specifically targeted the sites of Post-Medieval halls across the county, and large-scale community projects in the Lake District such as ‘Windermere Reflections’ and ‘Rusland
Horizons’ that have contributed to an enhanced understand of the Post-Medieval landscape. In a similar vein, supervised metal detecting involving suitably-experienced volunteers working under direct archaeological supervision in Cheshire has also produced interesting assemblages of Post-Medieval material, including household items, coins and token, dress fittings, numerous musket balls and tools, indicative of casual loss and the spreading of middens and household waste on the fields. It is acknowledged, however, that concentrations of material indicative of below-ground remains have rarely been located (M Leah pers comm). Similarly, the Portable Antiquities Scheme (PAS) has mapped and recorded a huge number of finds located by metal detector, but these rarely provide any information on their contextual deposition.

In addition to a broadening of the ‘archaeological community’ in the North West, the approaches to archaeology is more multi-faceted than it was at the start of the 21st century, often employing new technologies such as LiDAR, remote sensing, laser scanning and the widespread application of unmanned aerial vehicles for data capture and associated digital recording techniques. There has also been an increased application of archaeological science to studies of Post-Medieval sites and buildings, which has yielded some important results that have helped to refine a current understanding of the evolution of specific sites and monument types.

A welcome achievement since 2006 has been the publication of several key Post-Medieval sites, such as the portfolio of investigative work undertaken in Penrith (C) since the early 1990s (Zant 2015), and the excavations carried out in 1980-81 at 75-87 Main Street in Cockermouth (C), which was finally brought to publication in 2013 (Leech and Gregory 2013). These monographs contribute a fresh insight into the Post-Medieval development of two small towns on opposite fringes of the Lake District, although a similar volume synthesising archaeological work in Kendal would be a useful addition to the corpus of material on Cumbrian market towns. In the south-western part of the region, a synthesis of much of the archaeological work carried out along the river frontage in Liverpool during the early 2000s has also been presented in a monograph (Gregory et al 2014). Recent years have also seen a surge of ‘popular’ publications, particularly in Greater Manchester, where the established ‘Greater Manchester’s Past Revealed’ series features several Post-Medieval sites that have been subject to archaeological study (eg Gregory and Miller 2013; Redhead and Miller 2014; Rimmer 2018; Gregory 2019). Nevertheless, much of the archaeological data gathered from investigations of Post-Medieval sites is encapsulated in a plethora of ‘grey literature’ reports, and whilst many of these reports can be consulted through the Archaeological Data Service website or regional Historic Environment Records, synthesis is now required to provide thematic overviews of the period.

2. Environment

The original Resource Assessment contains virtually no archaeological evidence for the Post-Medieval environment, and merely cites documentary accounts of ‘bog bursts’ between the 16th and 18th centuries. Little new archaeological data has been gathered specifically on this topic since, and there are still many unanswered questions relating to the regional impact of the ‘Little Ice Age’ and the effects of coastal change on settlement patterns and farming regimes. However, this is an area of research that has been investigated by other disciplines,
particularly in a university environment, which await assimilation by the archaeological community.

Some evidence for environmental change has been obtained from a landscape survey carried out by English Heritage / Historic England on Alston Moor (C), which identified a legacy of groundwater contamination associated with the lead industry. In particular, the survey revealed local hotspots of lead contamination around mine entrances and processing sites at Alston and Nenthead, where major ore extraction appears to have begun in the late 17th century, and is currently leading to the contamination of the headwaters of local rivers (Ainsworth 2009; Huntley 2011).

3. Agriculture

A key characteristic of the onset of the period was the extension and intensification of agrarian activity, enabled by the Dissolution and made essential to sustain the ensuing population growth. The medieval manorial system of land use was reorganised from the 16th century, leading to the enclosure of ‘waste’ and common land as a result of population pressure and innovations in agricultural practice. Where the resultant ‘piecemeal’ enclosure of fields, generally of irregular shape, survives as a landscape feature, it is usually bounded by hedges in the lowlands and drystone walls on the Pennine fringe.

The importance of the rural environment to the study of Post-Medieval archaeology has long been recognised in the research agenda put forward by the Society for Post-Medieval Archaeology (1988), and yet this had not been reflected to any significant degree in archaeological research into the Post-Medieval agrarian landscape by the early 21st century. Indeed, the paucity of excavation and survey work on Post-Medieval rural sites, and the need to investigate improvements in plant and animal varieties through palaeo-environmental evidence, was cited previously as an important omission from the existing archaeological dataset (Newman and McNeil 2007, 119). This has been addressed to some degree, as a considerable amount of survey, evaluation and excavation of Post-Medieval rural sites has been carried out since 2006.

Large-scale investigations of rural landscapes of particular note that have furnished new evidence for Post-Medieval agricultural practice and settlement include those at the Kingsway Business Park near Rochdale (Gregory 2019; Gregory *et al* forthcoming a), the former open-cast mining site at Cutacre near Bolton (Gregory *et al* forthcoming b), and the Cuerden Strategic Site in South Ribble, near Preston (Cook *et al* 2018). The application of archaeological science to some of these excavations has yielded useful insights. At Cutacre, for instance, palaeo-environmental sampling yielded important data on the medieval environment, which was seemingly dominated by oak woodland with significant open areas available for agricultural practices. In the 14th century, however, it was noted that cereal-type pollen was no longer present, and indicators of pastoral activity were recorded at the onset of the Post-Medieval period.

Palaeo-environmental data recovered from an excavation in 2007 at Chorlton Fold in Eccles (GM) similarly furnished some evidence for the character of the 17th- and 18th-century rural landscape from waterlogged plant remains. Whilst there was no direct evidence that the plant remains were from crops, seeds from arable weeds such as stinking chamomile and
knotgrass were identified. The other seeds in these samples were from plants of grassland, ruderal communities, broad ecological groupings, waste ground and wet places (Gregory and Miller 2011). Palaeo-environmental data recovered from excavations at Openshaw West in East Manchester in 2010-11 similarly concluded that the 18th-century landscape was probably a damp environment with some scrubby vegetation and areas of waste, open or cultivated ground. Amongst the plant species present were bristle club-rush, rushes, sedges, creeping buttercup, black bindweed, and nettles (Miller 2013).

The work carried out at Kingsway, Cutacre, Chorlton Fold (GM) and Cuerden (L) examined relatively low-lying agricultural landscapes and their attendant farmsteads on the fringe of large urban areas, whilst the significant number of landscapes surveys carried out across the Lake District since 2006 have provided detailed evidence for upland agricultural practices. During just one survey of a Western Lake District valley, for instance, more than 60 previously unrecognised sheepwash structures were identified, and several sheepfolds were recorded along the edge of Post-Medieval enclosure during a survey at Black Beck in Longsleddale (C). In addition to sheep farming, the Lake District surveys have provided evidence for Post-Medieval woodland agriculture, such as bark peeling and peat cutting, and charcoal and potash production. The East Coniston Woodland Survey, for instance, recorded 232 such sites that had not been recognised previously (Schofield 2010).

Elsewhere in the region, detailed archaeological surveys have also been carried out by OA North (Schofield 2006), UMAU (Mottershead et al 2009) and, most recently, by the Holcombe Moor Heritage Group at Holcombe Moor, near Bury (GM). This relict Post-Medieval farming landscape on the upland fringe has been used by the Ministry of Defence as a training ground for many years, and public access to large swathes of land has only recently been made available by arrangement. This has shown that the landscape retains much physical evidence for early field systems and farm sites, together with early water-powered textile mills in the valley floor.

The Pennine fringe has also been the focus for a community-led project that has been carried out by Pennine Prospects working with volunteers as part of the ‘Celebrating Our Woodland Heritage Project’, facilitated by the Heritage Lottery Fund. This project involved nearly 30 surveys of woodland, enabling numerous Post-Medieval charcoal-burning platforms and other evidence for woodland industries to be identified on the West Pennine Moors around Blackburn and Darwen (L), and the South Pennines in Rossendale (L), Oldham and Rochdale (GM), together with areas in West Yorkshire (Atkinson forthcoming).

Interesting new evidence for Post-Medieval agricultural practice on a very different type of rural landscape was recovered from excavations near Hutton, on the edge of the Ribble Estuary (L), where the discovery of fish traps in 2010 highlighted the importance of fishing to the local agricultural economy. Two structures consisting of settings of upright stakes, representing the remains of the fish traps, were unearthed in fields immediately adjacent to the south bank of the River Ribble. Radiocarbon dating suggested that they been in use for a prolonged period, including phases between the date ranges of 1610 to 1670 and 1730 to 1810 (Vannan and Plummer 2010). A similar structure was recorded subsequently on the River Esk at Drigg (C), although dating was less precise (Davis and Davis 2013).
An archaeological approach to landscape analysis has also been undertaken as part of the English Heritage-sponsored Historic Landscape Characterisation (HLC) projects, which have been carried out in Lancashire (Ede with Darlington 2002), Cheshire (Edwards 2007), Merseyside (Museum of Liverpool 2011) and Greater Manchester (Mitchell and Redhead (eds) 2012). The chronology and character of Post-Medieval enclosure in upland marginal areas have formed a major part of the HLC Programme, and have demonstrated the complexity of Post-Medieval enclosure history in different parts of the North West. The Greater Manchester HLC, for instance, examined the evolution of the county’s entire landscape, using geo-rectified mapping, 54,000 polygon records and time-slicing to show how it transformed during the Post-Medieval period. Notwithstanding the densely developed character of Greater Manchester, the rural fringes cover 445km² and represent some 35% of the county, incorporating lowland arable land and pasture to the west and the more marginal hill farms of the Pennine uplands of the north and east. The net result of the Greater Manchester HLC was the creation of a highly detailed interactive GIS map with related interpretations that chart the historical development and present-day historic character of the modern county (Mitchell and Redhead (eds) 2012).

Pipeline projects undertaken since the start of the 21st century have offered an incredibly useful opportunity to investigate linear transects across the region’s rural landscape. One of the largest such projects in the North West was the West East Link Main water pipeline, which extended some 54km from Prescot in Merseyside to Bury in Greater Manchester (Gregory 2013), with similar projects in Cumbria including the Nether Wasdale Pipeline, the South Egremont Pipeline, the West Cumbria Pipeline (Schofield and Leighton 2014), and the Quarry Hill to Stainburn and Cockermouth extensions (Peters and Newman 2015). Numerous historic landscape features were recorded during these projects, although in the absence of a regional synthesis of the data, the overall contribution to a better understanding of Post-Medieval agricultural practice has been restricted largely to noting the presence of tracks, ridge and furrow cultivation scars and field boundaries.

4. Rural Settlement

The dramatic changes in agricultural practice experienced during the Post-Medieval period was coupled with the creation of new estates from former monastic land, and the reconstruction of many high-status homes in the North West in response to changing living requirements amongst the ruling class. The ‘trickle-down’ effect also brought about the widespread remodelling and rebuilding of yeoman-class dwellings and farmsteads, and studies of dated stone buildings in particular have shown that the replacement of timber or clay structures gained momentum from the late 17th century (Nevell and Walker 1998).

The original Resource Assessment noted that some very valuable thematic studies of Post-Medieval farm buildings had been completed, such as the clay dabbins on the Solway Coast (Jennings 2003), and several other studies of farm complexes, particularly in Cumbria. There had also been a plethora of surveys of barns in advance of residential conversion, a trend that has continued apace subsequently, especially in Lancashire.

There have also been numerous surveys and excavations of Post-Medieval halls, farm complexes and rural cottages carried out across the North West, many of which have yielded
fresh evidence for rural settlement and activity across the region. Whilst it is debatable whether any additional data can be usefully obtained from additional fieldwork projects, there is a growing need to synthesise the body of information that has been generated.

*Rural Estates, Halls and Manor Houses*

The most visible remains of the Post-Medieval rural landscape are the impressive timber-framed and stone-built halls and manor houses. Numerous surveys of standing structures and the excavations of buried foundations of these types of buildings have been carried out across the region since 2006. One of the most significant projects in this respect has been undertaken on behalf of the National Trust across the Dunham Massey Estate in Trafford (GM), building upon decades of earlier research. A major element of the recent work comprised an extensive programme of archaeological and historic building survey to inform an enhanced understanding and management of the Estate. UMAU then Matrix Archaeology prepared detailed building surveys for the estate’s many farms and other historic buildings relating to the running of the estate. More than 20 separate building survey reports have been produced, coupled with some excavation work that was carried out partly as community-based projects (Gregory and Miller 2013), cumulatively making this a study of potential regional importance. This was enhanced by the Warburton Archaeological Survey, a comprehensive survey of the township adjacent to Dunham Massey, which explored the evolution of the landscape from the Medieval period onwards, and demonstrated an evolutionary pattern very different to that of the neighbouring estate of Dunham Massey (Nevell et al 2015).

Amongst the other Post-Medieval manor houses that have been investigated in the North West is Staley Hall in Stalybridge (GM), a mid-16th-century timber-framed manor house that replaced an earlier hall. Archaeological surveys of the building, coupled with a series of excavations, have been carried out over a period of 25 years, culminating in 2012 in advance of a development that aimed to repurpose the buildings for modern residential use (Rimmer 2018).

As with the investigation of other monument types, archaeological science has played an increasingly important role in understanding the dating and developmental chronology of Post-Medieval halls and manor houses. Dendrochronological analysis undertaken on 41 of the 45 samples obtained from timbers in different parts of Tonge Hall near Rochdale (GM), for instance, produced a single dated site chronology comprising 38 samples with an overall length of 239 rings. These rings were dated as spanning the years AD 1449–1687. Interpretation of the sapwood on the dated samples indicates that the roof, first-floor frame, and structural timbers of the hall range, as well as the roof and stair timbers of the cross-wing, were all cut as part of a single phase of construction between AD 1589–1614. A ground-floor fire place bressumer of the hall range has an estimated felling date of AD 1609–34, while the timbers of a first-floor partition have an estimated felling date in the range AD 1640–65. The latest dated timbers are the floorboards of the cross-wing attic, which have an estimated felling date in the range of AD 1697–1722 (Arnold and Howard 2014a).
The work undertaken at Tonge Hall was one of several similar scientific dating reports produced by English Heritage (now Historic England). Another example can be drawn from Lytham Hall in Lancashire, where a tree-ring dating programme was commissioned on oak and softwood timbers. This 18th-century manor house occupies the site of an earlier manor house and Benedictine Priory, and is set in 30 hectares of mature parkland within which a further programme of sampling was undertaken on living oaks. The study concluded that oak and pine timbers from the roof of the 18th-century building were datable by tree-ring dating techniques, with the earlier ranges to the west containing some oak timbers from the 16th century (Tyers 2013).

Other important recent archaeological surveys of Post-Medieval halls include that undertaken at the Grade II listed Monks Hall in Eccles (GM), where a timber-framed wing has been dated to the 1580s (UMAU 2007 and EH 2010). Similarly, at Ordsall Hall in Salford, the roof was studied during repairs when the batons and slates were removed, enabling the roof timbers to be dated accurately. This work adds to a significant corpus of archaeological investigations at Ordsall Hall, examining the 14th-century moat and former kitchen wing and the 16th-century remodelling of the hall complex. Perhaps the most important of the recent surveys of Post-Medieval halls, however, is that at Bramhall Hall in Stockport, where a detailed chronology for the development of the buildings has been elucidated (Fletcher 2017).

Archaeological excavations across the North West have also contributed to an enhanced understanding of Post-Medieval halls. Many of these excavations have been carried out as community-led projects, such as ‘Royton Lives Through the Ages’, led by the local history society and UMAU, involving total excavation of the mainly Post-Medieval hall of Royton in Oldham (GM). The excavation was carried out over several seasons, culminating in 2009, and provides an important example of a fully excavated hall yielding well-preserved remains that demonstrate the site’s evolution from the medieval period to 19th-century decline (Thompson and Whittall 2011).

The Dig Greater Manchester community archaeology project, funded by the Association of Greater Manchester Authorities, also involved the excavation of several Post-Medieval halls. During the course of this major community-led project, significant remains were discovered at: Moss Bank (Bolton), Balderstone Hall (Rochdale), Etherstone Hall (Wigan), Eastwood House Cheetham Park (Tameside), Chadderton Hall (Oldham), Wood Hall (Stockport), Hart Hill Mansion (Salford), Longford Hall (Trafford). The accompanying desk-top study forms an important resource of this type of site in Greater Manchester (UMAU 2015).

The sites of other Post-Medieval halls have excavated in advance of development as part of the planning process. Examples include Crow Hall in Newton-le-Willows (M), where excavation in advance of a housing development uncovered remains relating to the eastern and western wings of the building, consisting of cut features, the foundations of brick and sandstone walls and some internal surfaces. It appeared that much of the structure dated to no earlier than the mid- to late 17th century, and had probably been built in a single phase (Adams and Edwards 2008).

One of the challenges facing the excavation of Post-Medieval halls is that many were comprehensively rebuilt during the 19th century, reflecting a trend that has been noted at
many halls across the region when ownership changed as wealthy industrialists expressed their new high status. This was very apparent, for instance, during the excavation of the well-preserved buried remains of the southern wing of Sale Old Hall in Trafford (GM) in 2011.

**Barns and Farms**

There has been a huge volume of work carried out on Post-Medieval agricultural buildings, particularly barns and farms, since 2006. Of particular interest is the comprehensive review of historic farmsteads that was carried out on a national level by English Heritage (now Historic England) between 2004-15, which led to the publication of an assessment framework in 2015 (Lake 2015). A regional report for the North West was published in 2006, and provides an extremely useful overview of the key characteristics of the agricultural buildings across the region.

One of the finest ailed barns in the North West is undoubtedly Gawthorpe Great Barn, near Padiham in Lancashire, which has statutory designation as a Grade I listed building. The barn dates to c 1605 and has been subject to some alteration, but an historic building investigation in 2013-14 concluded that the timberwork is substantially original, and it has been suggested that the ox stalls might be the earliest examples in Britain (Quartermaine 2014). Dry Gap Barn near Ramsbottom (GM), an interesting example of a stone-built threshing barn, has also been recorded by archaeological survey, although in this instance in advance of conversion. Dendrochronology samples taken from the well-preserved internal timber framing provided a felling date of c 1530 (Minerva 2009). Other examples of archaeological science being applied to Post-Medieval farm buildings include Storeton Hall Farm on the Wirral, where timbers in both the floor and roof of one part of the building were datable by tree-ring dating techniques, with these areas using timbers felled during the late 17th century (Tyers 2010).

At Tomlinson Barn in Torkington, Stockport (GM), a programme of detailed building recording revealed that the earliest phase comprised a two-bay yeoman’s house, of which fragments of three cruck blades survived. Dendrochronology dated the earliest construction phase to the second half of the 16th century, followed by a rebuild during the early 18th century when it was encased in brick, with subsequent changes related to internal subdivision and rebuilding in parts of the brick outer walls (Fletcher 2015).

Intrusive investigations have also contributed to an understanding of agricultural buildings. In July 2009, the footprint of a tithe barn to the south of Booth Road in Waterfoot, Rossendale (L), was subject to full excavation. The building is identified as a tithe barn on 19th-century mapping, whilst excavation identified three main phases of development. The earliest of these was dated tentatively to the 16th century, based on the date ascribed to a single sherd of pottery, and appeared to comprise a stone-built structure that measured approximately 16 x 7m. The building was used subsequently for domestic purposes, as attested by a large assemblage of 19th-century pottery, providing interesting evidence for the adaptation of a Post-Medieval tithe barn (Bradley and Miller 2009).

An important study of Post-Medieval farms has also been carried out by OA North at Cutacre (GM) between 2006-14, and included comprehensive desk-based research, geophysical
survey, evaluation trenching and excavations. Amongst the sites that were subject to full excavation were Wharton Hall, which formed the highest-status building in the Cutacre area, and Ashes Farm, which represented a farmstead that was probably typical of several others that were established in this region during the Post-Medieval period. Several other abandoned farmsteads across this landscape have been subject to an archaeological survey, including Spout Fold and Mills Brow. Desk-based research traced the origins of Spout Fold to at least the 17th century, with buildings in the approximate positions of the extant farmhouse and threshing barn shown on a Bridgewater Estate plan of c 1800. This plan also shows the farmhouse and barn at Mills Brow, and whilst the barn has been largely demolished, the extant cowhouse within its southern bay revealed significant timber carpentry and hand-cut beams, suggesting an early construction date (Wild 2015).

Other Post-Medieval farmsteads that have been subject to archaeological investigation include Hale Road Farm in Speke, Merseyside (Radford 2019), and Chorlton Fold in Eccles (GM). An historic building survey of the latter farm concluded that the farmhouse was built as a two-unit dwelling during the 18th century, together with a barn and range of outbuildings. The farmhouse was expanded subsequently with a further bay added to the west elevation, followed by the erection of a rear wing during the late 18th or early 19th century. Excavation of the site following the demolition of the buildings in advance of a new residential development revealed the stone foundations of a rural cottage that probably dated to the 16th or 17th century, together with associated features (Gregory and Miller 2011). However, as is frequently an issue for excavations of this type of site, precise dating of the remains was not possible.

Other Rural Houses and Cottages

There have been several archaeological investigations of Post-Medieval rural sites in Cheshire include those at Woolston near Warrington (Dodd 2013), Tattenhall, and Oakhanger (Leah 2014). Well-preserved remains were recorded in all cases, whilst at Woolston and Tattenhall there was clear evidence of earlier phases of a Post-Medieval building. It is clear, however, that these were relatively high-status sites, and attempts to locate low-status buildings, often on the fringes of former mossland and heath, have in many instances been unsuccessful.

There has been similar work carried out in Lancashire. At Stanhill near Oswaldtwistle (L), for instance, two early 18th-century weavers’ cottages were excavated in advance of development (Stitt and Miller 2013). The stone-built foundations of both cottages were exposed, although little physical evidence survived for any internal fixtures or fittings, other than substantial stone partitions that separated the front and back rooms of the cottages. The lack of any fixtures and fittings is frequently the case with the excavation of these types of site, and precise dating is often elusive.

At Openshaw West (GM), excavations in 2010 unearthed the foundations of a cottage that had seemingly been built for agricultural workers’ in the 18th century. Ivy Cottage was of particular interest in that the cottages continued to be occupied by agricultural workers into the 20th century, indicating that farming on the fringe of industrial Manchester had not been
superseded entirely by industrial activity. The original building comprised a small double-pile house, seemingly typical of a small rural house of 18th-century date (Miller 2013).

At Lowes, in the Walmersley area of Bury (GM), a trial excavation by Bury Archaeology Group revealed the margins of an early 16th-century domestic habitation site, partly buried beneath a shallow deposit of ‘hill-wash’, which contained a group of 17th-century ceramics. Overlying this, an early 18th-century yard, with drainage gully and remains of building foundations, appeared as a possible extension to an earlier building (BAG 2015).

As is the case with recent research into many different types of Post-Medieval sites and monuments, the pressing need moving forward is thematic synthesis of the huge volume of data that has been generated. Much of this information resides in ‘grey literature’ reports, and synthesis will allow those areas that have been researched thoroughly to be identified and, most importantly, will enable gaps in the current understanding of rural settlement and agricultural practice in the Post-Medieval North West to be highlighted. Detailed accounts of some individual archaeological projects have been brought to publication, such as the excavations undertaken at Bewsey Old Hall near Warrington (Ch) during the 1970s and 1980s, which provides a useful and comprehensive case study of a medieval manor house and its estate that was remodelled during the Post-Medieval period (Lewis et al 2011).

**Upland Settlement**

An important study of an upland rural settlement was the comprehensive survey at Scordale (C) undertaken by English Heritage (now Historic England) in 2010 in response to increasing environmental damage from water run-off. This enabled several possible settlements and cattle-management systems to be identified, and whilst obtaining secure dating proved to be an issue in the absence of intrusive investigation, some of these sites were almost certainly of Post-Medieval origin. These included what are probably the remains of miners’ settlements and several shielings (Hunt and Ainsworth 2010). Similarly, the Lakes & Dales Project has been surveying the areas to be taken into the expanded national parks of the Yorkshire Dales and the Lake District, and has attempted to integrate research by the aerial survey teams with topographical surveys, geophysical surveys, and small-scale targeted interventions for dating and palaeo-environmental evidence. The survey identified a significant number of new sites, emphasising the previously under-researched/resourced uplands of the region.

5. **Urban Settlement**

Excavations ahead of regeneration development have yielded a wealth of evidence for urban settlement in the Post-Medieval period. Greater Manchester has provided an important focus for 21st-century development in urban areas, with major schemes having been carried out in Manchester, Salford and Stockport, although large-scale projects that have led to the excavation of Post-Medieval remains have also been delivered in the region’s other large urban centres, such as Liverpool, Wigan, Carlisle and Chester. The investigation of Liverpool’s river frontage in the 2000s was focussed on the expansion of the docks from the mid-18th century, but also provided some evidence for the 17th-century settlement (Gregory et al 2014). Important evidence for Post-Medieval activity in Chester has similarly been
obtained from the major programme of excavation undertaken on the site of the Roman amphitheatre (Wilmott and Garner forthcoming).

The series of multi-period excavations carried out along Church Street in Lancaster from the late 1980s onwards still await full publication, although the results of dendrochronological analysis of 38 conifer samples from the Post-Medieval brewery that occupied part of the excavated areas were placed in the public domain in 2010. Three of the five site sequences identified from the analysis were dated as spanning AD 1627–1754, AD 1551–1733, and AD 1605–1737 (Arnold and Howard 2010).

In Greater Manchester, several open-area excavations on Greengate and at Chapel Wharf in Salford’s historic core yielded physical remains of urban houses from this period, together with large assemblages of pottery. The Chapel Wharf development site in particular uncovered a regionally important assemblage of Post-Medieval pottery, together with evidence for the re-use of medieval burgage plot ditches, and Post-Medieval infill (Gregory and Miller 2015; Mottershead 2017). More recently, excavation on the site of the former Exchange Station in Salford (GM) revealed building remains and quantities of finds (Haslam et al 2017), whilst some Post-Medieval features and fragments of pottery were recovered from large-scale archaeological excavation in 2017 that were targeted on the suspected hamlet of White Cross, situated beyond the northern fringe of Salford’s historic core (Harvey and Stitt 2019).

Elsewhere in Greater Manchester, a large excavation undertaken in 2008 in advance of a new Joint Service Centre on Millgate in Wigan unearthed Roman remains of regional importance, but also yielded evidence for activity on the site between the 15th and 18th centuries, and a large assemblage of Post-Medieval pottery. This group included sherds of Midland Purple-type wares, several Blackware multi-handled cups or posset pots, and some large fragments of trailed slipware, with a date range spanning the 16th to early 18th centuries (Zant and Miller 2011). Another small but nevertheless important assemblage of Post-Medieval pottery from an urban setting was recovered from limited excavations on Lower Hillgate in Stockport (GM) in 2011. The foundations of a substantial stone building were also exposed, together with a vaulted brick-built conduit for the Tin Brook. This represented an early stage in the culverting of the watercourse to facilitate an urban expansion of Stockport (Vannan 2011a).

The recently published account of excavations carried out by the former Cumbria & Lancashire Archaeological Unit in 1980-81 at 75-87 Main Street in Cockermouth (C) is also of note. This comprised historic building survey and excavation across three former burgage plots along one of the town’s principal streets, providing important evidence for a continuous sequence of activity ranging from the 13th to 19th centuries. Physical remains of 15th-century buildings, including two dwellings, an outbuilding and a cruck-framed barn, all with clay walls, were uncovered, together with evidence for their replacement in the late 17th and 18th centuries by a series of densely-packed stone and brick-built dwellings (Leech and Gregory 2013).

In addition to the established medieval towns, new centres of population began to be established across the region during the Post-Medieval period. Work carried out at Bottling Wood near Wigan (GM), for instance, traced the origin of this community of nail makers to
at least the early 18th century, centred on a corn mill that utilised the power of the River Douglas (Robinson *et al* 2010).

6. *Religion, Ritual and Ceremony*

Recent years have seen several large-scale excavations of cemeteries, particularly in urban environments, and it is likely that further cemeteries will be uncovered as pressure for development in the urban centres increases. Recent excavations include those at Walker’s Croft and St Peter’s Square in Manchester, and Blackburn, Darwen, Hazel Grove and Swinton, although these were all predominantly of a 19th-century date. Excavation has been carried out, however, of the cemetery associated with the non-conformist Cross Street Chapel in Manchester city centre. Established as a Unitarian chapel in 1694, the building was surrounded on three sides by a well-used burial ground that probably put to use shortly after the chapel opened (Marsden 2014, 76-7).

Numerous burials recorded on Cross Street in Manchester city centre have been dated to the 1720s and 1730s, and analysis may provide earlier dating; the earliest surviving burial register dates from 1785 (*ibid*). It is hoped that analysis will also shed light on the diet, health and lifestyle of the people of the period and together with the growing body of information from cemeteries in Manchester, contribute to the building up of a detailed picture of 18th-century life in the town on the cusp of industrialisation.

In 2013, an archaeological watching brief was maintained during a re-ordering scheme at the Grade I listed St Bartholomew’s Church in Wilmslow (Ch). A church has occupied the site since at least the mid-13th century, although the present building dates largely to the early 16th century. The principal element of the re-ordering scheme required the removal of existing stone and timber surfacing in the nave to enable the installation of a new limecrete floor with under-floor heating. The existing timber floor was suspended over a void that was c. 320mm deep, and overlay an earthen deposit that derived from the reuse of the church interior for burials since at least the early 16th century (Raynor and Miller 2013).

St Bartholomew’s Church is just one example of a religious building that was subject to alterations and improvements during recent years. Another example can be drawn from St Mary’s Church in Deane (GM), which was built in the 13th century and remodelled in the 15th and 16th centuries. An urgent need to upgrade the rainwater drainage from the church required limited excavation across the churchyard, leading to the discovery of early 17th-century ledger stones that were concealed at a shallow depth beneath the modern ground surface. Whilst Deane was one of the 11 parishes in the Medieval Hundred of Salford, and covered approximately half of the modern borough of Bolton, the ledger stones in the churchyard provide a reminder of Deane’s importance during the Post-Medieval period, prior to its absorption with industrialised Bolton (Harvey and Harris 2018).

Amongst several instances of applying archaeological science to the study of religious buildings is the tree-ring analysis from timbers in the Church of St Mary, Stockport (GM). Dendrochronological analysis of ten core samples obtained from timbers to the vestry roof
concluded that the timbers represented were probably cut as part of a single episode of felling in AD 1623 (Arnold and Howard 2014).

A community-led project at Halton Castle in Runcorn (Ch), comprising geophysical survey and the excavation of two trenches unexpectedly revealed two burials that have been dated to the 15th and 16th/17th century respectively. The discovery of burials within a castle is very rare; Halton is the only castle site in the North West known to have contained burials, and they may have derived from the Post-Medieval use of the castle as a gaol, or from the Civil War.

7. Technology and Production

It is acknowledged that most industrial / craft-working activity across the region prior to the late 17th century followed Medieval traditions, with little indication of significant technological advancement being employed. Such activity was almost certainly widespread, with distribution networks being largely local, unless connected to the sea. The supply of raw materials for local industry was a key consideration, and the gradual growth of extractive industries, including those concerned with gaining energy minerals (coal), metals, bulk minerals (stone, aggregates, lime, sand), and other industrial minerals (clays, evaporates), during the later Post-Medieval period was paramount to subsequent industrialisation. After c 1650-1700, almost every village had one or more quarries, where resources were available (Newman 2016), although industrial enterprises were for the most part small concerns and, in broad terms, not concentrated in specific locations. The situation changed subsequently with market growth, capital investment and improved transport infrastructure, initially from river navigations and, from the mid-18th century, the introduction of canals.

Extractive Industries

Important work on historic extractive industries has been carried out across the region since 2006. One of the most intact metal-extraction landscapes in the North West is that around Nenthead (C) in the North Pennines, which became an important centre for the lead industry. There is very little physical evidence for lead mining in the area before the early 17th century, although it is likely that there had been limited small-scale exploitation of the surface workings. Work on the Rampgill Vein, the first vein known to have been mined at Nenthead, had begun by 1692, and the site was involved with the mining and processing of lead ore continuously thereafter until the 1900s. Nenthead has been the focus of archaeological research and excavation since the 1980s, with the most recent work comprising a community-based project that was led by Northern Archaeological Associates Ltd. The survey covered 48 hectares and aimed to further understand the position, function, and flow paths of the water-management systems at the mines, identify threats to known archaeological remains, and inform the details of a management plan for the site (Turner 2015).

Several small-scale projects in the Lake District National Park have also enabled features associated with the extraction of lead and silver to be recorded. Elements of the Silver Gill mine near Caldbeck (C), for instance, have been investigated by the Mines of Lakeland
Exploration Society (MoLES), which discovered a level above the well-known open coffin-level, whilst excavation revealed another hand-cut coffin level, cross-cut to the Silver Gill vein. Remarkably, several timber artefacts that survived in-situ were discovered, and may represent the remains of a tramway used by the Company of Mines Royal c 1586. The Lake District was also an important centre for the extraction of copper and bulk minerals, such as slate from quarries around Honister and Coniston, the latter dating to at least the 16th century.

A bulk mineral that was crucial to Post-Medieval development was limestone, an extractive industry that has left substantial remains, especially in Cumbria and northern Lancashire. It was required for both agricultural and building purposes, although large-scale lime production was held back for a variety of reasons during the Post-Medieval period, and the most extensive remains derive from an exponential expansion from a field kiln-based activity supplying local farms to a significant industry in the 19th century, a transformation that in some cases will have eradicated any physical evidence for earlier workings. Limestone quarrying and associated kilns have been the subject of recent research, which has considered their distribution and history along the Pennine fringe (Johnson 2013).

Brick was used increasingly as an alternative to stone as a building material during the Post-Medieval period, although the kilns that produced these bricks are poorly represented in the archaeological record for the North West. The remains of clamp kilns, using locally sourced clay adjacent to the building site where they were used, have been uncovered in several rural locations. A good example was found on the boundary of the boroughs of Salford and Wigan (GM) during the excavations for the West East Link Main in 2010, which uncovered four parallel firing tunnels, separated by stacks that were two bricks wide (Gregory 2013, 24). Similar remains were found during excavations near Oxford Road in central Manchester, providing very rare evidence for an urban clamp kiln, although this example may have dated from the 19th century (PCA forthcoming).

**Coal Mining**

Coal was being mined in small quantities from accessible seams in many parts of the Lancashire Coalfield during the 14th and 15th centuries, corresponding with its increased use for domestic purposes. Mine works that exploited seams beneath surface outcrops appear to have been introduced to the area in the 16th century, but very few have been investigated archaeologically. An exception can be drawn from Crompton Moor near Oldham (GM), where a regionally important relict coal-mining landscape was recorded as part of a Heritage Lottery project. This concluded that early 18th-century mining was undertaken by tenant farmers, with surviving remains including adits and bell pits, together with a range of later mining features (Nash and Nevell 2011).

One of the very small number of early coal-mining sites in the region to have been excavated was that at Windle Ashes, near St Helens (M), where some evidence for 17th-century coal mining was identified (Gregory 2013). Evidence for coal mining dating to the 15th and 16th centuries was also identified during archaeological excavations at Gadbury Fold, near Wigan, in 2007, which also produced a significant assemblage of pottery that has been dated to the 16th and 17th centuries. Several other coal-mining sites that are known from documentary
sources to have been worked during the Post-Medieval period have been the focus of archaeological excavation, such as Bradford Colliery in east Manchester (Miller 2011), but have proved impossible to provide a close date for some of the features identified.

Iron Working

The 17th and early 18th centuries brought significant development of the iron industry, which emerged as one of the principal driving forces of industrialisation. One of the key Post-Medieval iron-working sites in the region that retains significant archaeological remains is Cunsey Forge, near Hawkshead, in South Lakeland, where the immense significance of the buried archaeological resource was confirmed by an initial archaeological excavation in 2017. This identified elements of the 17th-century water-powered bloomforge, and exposed extensive structural evidence for the remodelling of the site as a refining forge in 1715. The principal components of the refining forge comprised at least one waterwheel pit (with circumstantial evidence for a second), the stone-built foundations for mechanical bellows, an anvil base associated with a trip hammer, retaining walls composed almost entirely of large lumps of iron-working debris, or ‘mossers’, and a thick surface of indurated metal-working waste that derived from the refining process (Quartermaine and Miller 2017).

Salt Industry

Salt is one of the most historically important industries in the North West, and coastal workings that produced salt by the ‘direct boiling’ process have been documented in Cumbria, with the remains of a large seawater tank and associated brine pond on the coast near Maryport providing a fine example. Similar works have been recorded around the mouths of the rivers Dee (CH) and Mersey (M), whilst documentary evidence attests to an active salt production on the estuary of the River Wyre (L) in the 17th century.

The availability of salt as an extracted mineral from inland works is one of the distinctive features of the North West, epitomised by the Cheshire ‘salt towns’ of Northwich, Middlewich and Nantwich, which were noted for their natural brine springs, where brine pits were developed. Brine was stored in cisterns or tanks, where any solid material was allowed to settle before being transferred to evaporating pans. Mines began to be established around Northwich during the late 17th century, following the discovery of rock salt at Marbury at depths of approximately 45m in 1670. Subsequent activity, or subsidence caused from extracting brine, has resulted in the loss of the early mining sites, although structural remains of the 18th-century Croft Salt Works were uncovered during the redevelopment of the former Magistrates’ Court in the centre of Northwich in 2013. These remains included a brick-lined well that had probably formed a brine shaft sunk into the aquifer, together with fragmentary elements of a later pan house and pump house (Mottershead 2015).

The most dramatic remains of the historic salt-producing industry to be discovered in the early 21st century, however, are those uncovered at Second Wood Street in Nantwich (Ch). This work revealed well-preserved timber structures and a range of artefacts connected with the extensive salt industry from the late 13th century through to the late 17th or early 18th century, adding substantially to the growing body of evidence for the town’s post-medieval
salt industry of the town (Dodd et al 2014). Further remains were recorded in the area during excavations for a gas main renewal in 2007, including a timber trackway that was dated to the second half of the 13th century. A useful article presenting an integrated account of these excavations was brought to publication in 2014 (ibid).

**Water-Powered Mills**

Water power was employed by several industries through the Post-Medieval period, although corn milling remained the most prevalent user. Some informative studies of corn mills have been carried out since 2006, with a particular focus on waterwheel pits and power systems. Restoration work at the 18th-century Heron Corn Mill on the River Beela at Beetham (C) in 2013-14, for instance, involved producing a detailed record of the power systems. A comprehensive survey of the 16th-century Nether Alderley Mill, near Alderley Edge (Ch), has also been carried out, although this corn mill was rebuilt in c 1746 and the surviving power systems and milling machinery date from the mid-19th century (Fletcher 2012).

Important work on Post-Medieval water-powered mills has also been undertaken in the Lake District. One of the largest archaeological surveys in the area was carried out as part of ‘Windermere Reflections’, a Heritage Lottery Fund supported Landscape Partnership Scheme that ran between 2011-14. This examined five possible fulling mills, four of which are located within an area documented as important for fulling and weaving. The condition of the mills was variable, with one at Sourmilk Gill being an exceptional survival. Two of the mills, that at Sourmilk Gill and Stickle Ghyll, were originally stone-founded structures, associated with well-defined water-supply systems, comprising a head race, wheel pit and tail race, and, at Sourmilk Gill, a launder platform. Both mills were potentially reused, however, and a full chronological account of their operational life remains uncertain (Schofield and Vannan 2012). Excavations at the 17th-century Cunsey Forge were also carried out as part of the ‘Windermere Reflections’ project, and uncovered rare evidence for the early application of water power to the iron industry (Quartermaine and Miller 2017).

Sections of mill races are more frequently uncovered, with an interesting example being part of the headrace that supplied the late 17th-century Duxbury Corn Mill, in the Red Bank area of Chorley (L). Excavation in 2006 in advance of construction works for a new road showed that the width of the headrace reduced from 6.25m to 3.4m on its approach to the waterwheel, and that a stone revetment wall and an earthen embankment between the water channel and the River Yarrow represented 18th-century improvements to the water-management system. A thick deposit of water-lain silt on the base of the headrace was indicative of a damp wooded local environment at the time, including alder. Palaeo-environmental evidence also suggested some arable farming and waste ground slightly further afield, with evidence of corn fields, and wayside verges or waste ground from waterlogged seeds, including corn cockle, corn marigold and weld (Howard-Davis 2008-09).

Elsewhere in Lancashire, but in an urban setting, part of an 18th-century stone-arched culvert over a mill race was identified during archaeological monitoring on Damside Street in Lancaster city centre in 2013. The substantial foundation walls of the overlying 18th-century
properties were also recorded, together with a substantial assemblage of Post-Medieval pottery, clay tobacco pipe fragments, animal bones and pieces of leather (Mounsey 2013).

**Pottery**

An industry that will have been widespread across the region throughout the Post-Medieval period is the manufacture of pottery. Prior to the ‘industrialisation’ of pottery manufacturing in the 18th century, it was very much a domestic industry, which usually involved the whole of the potter’s family. It was frequently carried out in buildings alongside the family dwelling, and often ancillary to farming or other craft occupations. Potters of yeoman status were able to establish a potworks as a part of their farmsteads, either using existing agricultural buildings or erecting purpose-built structures (Baker 1991, 8). Despite the widespread occurrence of these potworks in the Post-Medieval landscape, however, very few production sites have been subject to archaeological excavation, hampering attempts to identify the provenance of pottery fragments from excavations as the product of a specific production centre.

Establishing the exact provenance of pottery in the absence of data for the production centres and their products is particularly challenging with fragments of utilitarian, dark-glazed earthenware, which have formed a large proportion of assemblages recovered from the excavation of Post-Medieval sites across the region. An excavation of the Grimshaw Pottery at Grimshaw Park, Blackburn (L), in 2010 provided a large assemblage of dark-glazed earthenware, allowing a type series to be identified that can be linked to a specific kiln (Plummer 2011). Whilst historical documents indicate that the pottery was in production before the late 18th century, the excavated kiln and outbuildings dated to the early 19th century after a fire reportedly destroyed the original buildings. Nevertheless, the excavated kiln is likely to be of a form that had been used widely during the late Post-Medieval period, and its products characteristic of the utilitarian Post-Medieval wares across the region.

Particularly valuable information has derived from the series of archaeological excavations in Rainford (M), a village near St Helens where the manufacture of pottery and clay tobacco pipes became an important cottage industry from the 17th century. Carried out as part of the Rainford’s Roots Community Archaeology Project in 2011-14, the excavations produced regionally significant groups of 16th- and 17th-century pottery. The project culminated with the publication of a monograph that presents the results of the archaeological and meticulous historical research into the area’s pottery industry from the 17th century (Philpott (ed) 2015). Archaeological work has also been carried out in nearby Prescot (M), situated some 10km to the south, where excavation in 2017-18 yielded a large and regionally important assemblage of pottery fragments with a date range spanning the 16th to 19th centuries. Whilst a large component of the pottery assemblage recovered from this excavation comprised fragments of dark-glazed earthenware, slipware vessels of a probable 17th-century date with distinctive decoration were also discovered (Miller et al 2018).
A type of pottery that is often recovered from early 18th-century levels in archaeological excavations is tin-glazed earthenware. Liverpool emerged as the principal centre of the production of tin-glazed earthenware in the North West, although a few manufacturing sites existed elsewhere. The Pot House on St George’s Quay in Lancaster provides a very rare example of one such site. This 18th-century kiln has been subject to archaeological excavation, which yielded another regionally significant assemblage of pottery, together with an important group of kiln furniture fragments. However, this assemblage has yet to be assessed, analysed and published (Town 2009).

Large groups of Post-Medieval pottery have been recovered from several excavations across the region in both rural and urban environments since 2006, shedding new light on the distribution of patterns of particular ware types and the material culture of different social groups. In particular, excavations in the centre of Salford (GM) have produced one of the largest assemblages of Post-Medieval ceramics recovered from an urban context (Mottershead and Garratt 2008; Mottershead 2017), whilst excavation at Cuerden provided an insight into ceramic traditions in rural central Lancashire between the 15th and 18th centuries (Cook et al 2019). The latter excavation yielded fragments of Midlands Purple-type vessels, which have rarely been identified in 15th- and 16th-century contexts in that part of Lancashire.

8. Trade, Exchange and Interaction

The introduction of an effective transport network was a prerequisite for industrial growth, and whilst the introduction of canals, and subsequently railways, occurred during the Industrial Period, these developed from the river navigations of the 18th century. Significantly, the river navigations were the first large-scale financing of the local infrastructure by the merchant class to help develop trade, and their success stimulated the development of canals subsequently. Those of particular significance to the development of the North West included the Mersey & Irwell Navigation, the Weaver Navigation, the Navigation and the Douglas Navigation. These are thought to have employed simple chamber locks and short sections of man-made channels to avoid existing water mills and where the slope of the river demanded.

Documentary studies of these early navigations have been carried out, although very little archaeological investigation has been undertaken recently, other than in respect of the River Dee, where good evidence has been provided for a rapid shift in the active channel of the river. This evidently led to the need for new revetments, canalisation and construction of inlets for docks/wharfs and slipways (Hewitson and Scruby 2008; Reid 2008). The structural components of these early navigations, especially abandoned locks and weirs, await archaeological investigation, and have considerable potential to yield significant new information on inter-regional trade on the river navigations.

9. Defence

Little, if any, new archaeological data has been gathered on Post-Medieval defences since 2006, and whilst some artefacts recorded by the Portable Antiquities have been identified as relics from the Civil War, there is still considerable potential for further research on
identifying siege works, town defences, castle adaptations, minor battles and skirmishes deriving from this conflict. A rare example of archaeological levels that have been dated to the English Civil War can be drawn from excavations within the courtyard at Lancaster Castle in 2018, where a deposit containing musket balls, fragments of 17th-century pottery and stone chippings were uncovered, possibly representing a construction phase associated with the castle’s Civil War defences.

10. Conclusion

Nearly every aspect of life in the North West embarked on a period of major transformation during the Post-Medieval era that continued into the 19th century, reflecting changing ideas and world views that were expressed through new approaches to agricultural practice and manufacturing processes, leading to economic growth and paving the way for the rapid industrialisation of the region during the following centuries. The most visible impact of Post-Medieval prosperity in the North West in the modern landscape is perhaps embodied in the impressive rural mansions and landscaped estates, together with the numerous country halls that were erected across the region.

Detailed studies of a sample of these building types have shed new light on their construction dates and chronological development, enhancing or providing a corrective to any historical accounts that exist, whilst excavations of former halls have yielded important information on the fabric and form of the foundations and the material culture of their occupants. This emphasises the hugely important role that archaeological evidence can offer to a broader understanding of the changes wrought to the landscape and material culture during the Post-Medieval period, especially for those areas for which there is a dearth of documentary material.

The archaeological dataset for the Post-Medieval North West has been expanded considerably since 2006, with professional, community, and academic archaeologists all providing significant contributions. The archaeology of Post-Medieval halls has been one focus of research, but several associated themes merit attention, such as the formal landscaping of large country estates, and their impact on existing settlements. Similarly, for much of the North West, there is little detail on the form and fabric of farms and other rural domestic habitation sites, and research into the development of dual occupations amongst the farming community would be a welcome addition to the existing corpus of data. Identification of rural buildings that had been abandoned before the end of the 18th century would also be of considerable interest, enabling sites that may not have been subject to 19th-century remodelling to be targeted for archaeological research.

Several large assemblages of Post-Medieval artefacts, especially pottery, have been recovered from stratified contexts during archaeological excavations since 2006, providing a fresh insight into material culture in both rural and urban settings. However, this has emphasised a need for an agreed terminology for ware types, as the present lack of standardisation in this respect can lead to inconsistencies in reporting and can hamper regional overviews of pottery production, supply and distribution patterns.

The introduction of an effective transport network to facilitate the movement of people, goods and ideas was fundamental to the economic growth of the region. This was achieved
in the early 18th century by the opening of river navigations, although further research is needed to establish the impact of these new trade routes on inter-regional exchange and the growth of associated port settlements such as Chester, Wigan, Manchester and Salford. This could be usefully expanded to examine the impact on the North West of these new trade routes, and the opening of docks in Liverpool, and whether they brought a marked improvement in links with Ireland and the Isle of Man.