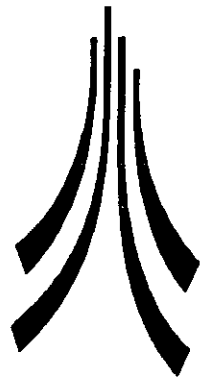


**LANCASTER**  
UNIVERSITY  
ARCHAEOLOGICAL  
UNIT



June 1997

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**RIVER RIBBLE CATCHMENT  
LANCASHIRE  
AND NORTH YORKSHIRE**

**Archaeological Rapid Identification Survey**

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Commissioned by:

**The Environment Agency**

River Ribble Catchment  
Lancashire and North Yorkshire

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Archaeological Rapid Identification Survey

Checked by Project Manager.	
<i>[Signature]</i>	Date 24/6/97
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June 1997

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## ACKNOWLEDGMENTS

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The desk -based data collection was undertaken by Jane Robson, Dr Richard Newman and Caron Newman. The fieldwork was undertaken by Ian Scott and Jane Robson. Ian Scott compiled the gazetteer and Dr Richard Newman wrote the report. The report illustrations and the maps which accompany the report were produced by Dick Danks. Dr Richard Newman managed the project throughout.

Thanks are due to Peter Iles of the Lancashire County Archaeological Service who provided the Sites and Monuments Record (SMR) information for Lancashire and whose input was invaluable throughout the project. Thanks are also due to Robert White, archaeologist for the Yorkshire Dales National Park, who provided SMR and cartographic data for upper Ribblesdale, and to Neil Campling, archaeologist for North Yorkshire County Council, who provided advice on sources for North Yorkshire. SMR data for North Yorkshire was provided by the National Monuments Record. The staffs of the Lancashire County Records office, Preston and the Harris Library, Preston are both thanked for their assistance.

The project was financed by the Environment Agency. Particular thanks are owed to Amanda Elliott of the Environment Agency for initiating the project and for her interest and advice throughout its duration.

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## EXECUTIVE SUMMARY

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Following a request by the Environment Agency, LUAU undertook a desk-based survey of the archaeological resource of the River Ribble Catchment, concentrating on the remains of eighteenth and nineteenth century industrialisation. The 373km of designated main rivers were found to have 807 archaeological sites either within the rivers or within 10m of their banks.

These sites were placed into a Microsoft Access database keyed to colour coded distribution maps so as to provide the Environment Agency with a rapid means of identifying archaeological issues when planning developments within the catchment. Those sites which were subsequently visited in order to record their current condition were graded in accordance with a system agreed with the Lancashire County Archaeological Service.

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## 1. INTRODUCTION

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- 1.1** The Environment Agency, following discussions with Lancashire County Archaeology Service (LCAS) initiated a project to enhance the archaeological database of the River Ribble Catchment area. In particular the Environment Agency wished to know the extent of the industrial archaeological resource. The purpose of the database enhancement is to improve management of the resource by being able to predict where river management works might impinge upon the archaeological resource and to be able to formulate the necessary mitigation responses. The Environment Agency commissioned the Lancaster University Archaeological Unit (LUAU) in December 1996 to carry out the data gathering and creation of a database. The project was undertaken between January and early March 1997.
- 1.2** The project area covered the main course of the River Ribble as far upstream as Horton in Ribblesdale (North Yorkshire), as well as the courses of the Ribble's principal tributaries. Of particular significance are flowing from the north the Hodder, the designated main river course of which is defined as far upstream as Slaidburn, and to the south the Darwen and Calder, the designated main river routes of which are defined almost as far as the southern watershed of the Ribble Catchment. In total the project covered the entire lengths of all designated main rivers, some 373km (NRA 1995, 25). All archaeological remains within the water courses or within 10 m of their banks were to be recorded.
- 1.3** The project consisted of a detailed trawl of 19th and early 20th century OS maps of the Catchment area in order to identify features of archaeological interest. This information was supplemented by information contained in the Sites and Monuments Records for Lancashire, North Yorkshire and the Yorkshire Dales National Park. Having compiled a gazetteer of sites from documentary sources, as many of the sites as possible were to be visited (see Fig 1) and brief details recorded concerning their current condition and survival. These details were then put into a database and maps cross referenced to the database were compiled of the noted sites
- 1.4** As a result of high rainfall in February some of the site descriptions are not as full as they might have been because features within the river channels were often invisible. Following meetings with the Environment Agency and the archaeological curators for Lancashire, North Yorkshire and the Yorkshire Dales National Park, the field visits were concentrated away from the urban areas, where the majority of the sites consisted of textile mills and the water courses are often now culverted below ground. Nevertheless many of the textile sites and their associated features were able to be described by reference to the published works of Mike Rothwell.
- 1.5** This report provides a guide to the use and significance of the results of LUAU's archaeological survey of the Ribble Catchment. The primary data is contained in a Microsoft Access database held by the Environment Agency, though paper copies of relevant sections are deposited with Lancashire County Council, North Yorkshire County Council and the Yorkshire Dales National Park. The database and the associated maps should only be used in conjunction with this report

which contains details within a bibliography of the references given in the database and a colour coded key for interpreting the site distribution maps.

## 1.6 Omissions and confidence rating

- 1.6.1 No new field survey was undertaken during the course of this project and only sites identified from documentary sources were visited, thus the results do not give a comprehensive coverage of the total archaeological resource. There may be many sites which remain hidden and unrecorded, particularly relating to earlier periods.
- 1.6.2 Whilst, until April 1996, the Sites and Monuments Record (SMR) remained under resourced in Lancaster University, very little upgrading with new data was undertaken, consequently the SMR does not contain all sites known to exist in certain areas. One particular deficiency concerns the upper Hodder valley where work by Dr Mary Higham has identified sites which at the time of this present survey had not been accessioned into the SMR. As a result the gazetteer generated from the Ribble Catchment survey may not include all known sites in the upper Hodder area.
- 1.6.3 Since the site histories for each gazetteer entry are largely based on information taken from Ordnance Survey maps, they reflect fluctuations in the levels of detail given on each edition of the Ordnance Survey 6 inch to 1 mile series. Unfortunately the level of detail given on the first edition maps is far higher than that given on subsequent editions.
- 1.6.4 The above provisos notwithstanding, this current survey has greatly increased the known archaeological record for the Ribble Catchment, and provides a fairly comprehensive record of archaeological features relating to nineteenth and early twentieth century industrial exploitation of the river systems.

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## 2. METHODOLOGY

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2.1 The following methods statement is based on that given in the brief and updated in line with any agreed variations.

### 2.2 Desk Top Survey

2.2.1 It was initially intended to consult the SMRs for Lancashire, North Yorkshire and the Yorkshire Dales National Park along with two secondary sources to extract information on already identified and recorded sites. Owen Ashmore's *The Industrial Archaeology of North West England* and the relevant *Industrial Heritage* booklets compiled by Mike Rothwell. In the event the number of secondary sources was increased reflecting the diversity of sites encountered. Moreover, the County Archaeological Officer for North Yorkshire informed LUAU that North Yorkshire County Council does not hold SMR data for their part of the Ribble Catchment. Consequently the National Monuments Record in Swindon was consulted and the SMR data obtained from them.

2.2.2 Eighteenth century sites were identified using William Yates map of 1786. Later sites were identified using Greenwood 1834, the 1st and 2nd, and where available, 3rd edition Ordnance Survey 6"-1 mile maps. For urban areas 1930s to 1940s Ordnance Survey 6"-1 mile maps were also consulted when available. This provided a fairly comprehensive coverage of the main industrial developments. The 1st edition series with its plethora of information negated the need to consult the near contemporary tithe maps, as it was considered they would in the project design. The 1st edition Ordnance Survey 6"-1 mile maps had their watercourses and any relevant sites traced off, and these were then overlain on the later similarly scaled maps and any additional sites located and dated.

2.2.3 It was intended that any relevant aerial photographs lodged in the various local authority SMRs would be consulted; in particular the LCAS SMR uncatalogued aerial photographs of mills was considered to be a worthwhile data source, however, the difficulties of identifying the sites and the lack of additional information that was being obtained meant that this effort was quickly abandoned.

### 2.3 Rapid Field Survey

2.3.1 A selection of sites were visited with those relating to urban areas largely avoided as those sites have generally been well covered by Mike Rothwell. An archive of black and white photographs has been compiled of selected sites where photographs were considered to be a useful addition to the textual description. The photographs will be deposited with the LCAS SMR since they only relate to sites in Lancashire. No Yorkshire sites were visited in the field.

2.3.2 All sites were graded for importance, using procedures agreed between the Environment Agency and LCAS. Unfortunately the database designed by the Environment Agency does not allow for the application of a null score, so sites that remained unvisited were given a uniform score of 1.



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## 3. RESULTS

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- 3.1 The River Ribble Catchment is an archaeologically significant river system, particularly as a data source for industrial history. It covers much of south Craven and what in the nineteenth century was considered to be the northern valleys of the Lancashire textile region. Concentrated in mill towns such as Accrington, Blackburn, Burnley, Darwen and Nelson, this was the area in which weaving was pre-eminent, in contrast to the Manchester conurbation which was dominated by spinning (Fletcher 1996, 160).
- 3.3 The Ribble Catchment archaeological survey identified 807 sites of which 204 were previously recorded within the SMR (or the NMR for North Yorkshire) and 5 were scheduled monuments, amongst the most notable of which were Ribchester Roman fort and Whalley Abbey. Approximately half of the sites recorded were industrial in character.
- 3.2 Historical background**
- 3.2.1 The River Ribble would have been an important trans-Pennine route from earliest times. Aside from the coastal strip, which has witnessed much recent archaeological investigation through the North West Wetlands Survey, the catchment area of the River Ribble has one of the largest concentrations of prehistoric sites in Lancashire. In particular it contains notable concentrations of Bronze Age sites (Middleton 1996, 47). The Ribble continued to be of importance during the Roman period, particularly for the military, as it would have facilitated the shipment of troops and goods. A fort was established at a major crossing point of the lower Ribble at Ribchester. The importance of this site is demonstrated by it having remained in occupation throughout the Roman period (Buxton *et al* 1996, 81). Linked to Ribchester by a road was another fort, Kirkham which guarded the Ribble estuary and adjacent to the confluence of the Darwen and the Ribble was the enigmatic site of Walton-le-Dale, a possible military supply depot (Buxton *et al* 1996, 78-81).
- 3.2.2 The Ribble catchment area seems to have acted as the centre for various territories which formed in the early medieval period. The British kingdom of Craven may have been formed around it and the later territory of Blackburnshire was focused on the Ribble valley with its centre at Whalley. Along with the Fylde, the Ribble valley developed a concentration of nucleated settlements during the Middle Ages, in contrast to the generally dispersed nature of the settlement pattern throughout much of the remainder of the North West, which may be indicative of the areas relatively rich agricultural potential. Two of the major urban centres of Lancashire grew up in the area, Preston and Clitheroe, and in Yorkshire, Settle. Clitheroe, with its castle, was the centre of a major medieval lordship, the Honour of Clitheroe, which dominated the Ribble catchment area during the medieval period.
- 3.2.3 It is from the later eighteenth century that the area began to rise to national prominence with the increasing concentration along the Ribble, and more particularly its tributaries, of textile finishing sites, such as weaving sheds, bleach works and print works. The reliance on water power, and later in the

nineteenth century steam power, ensured that these industrial enterprises were concentrated along the waterways. Not all of these formed part of the Ribble Catchment river system, for the longest and arguably most successful canal in Britain was built through the area, the Leeds and Liverpool canal (Clarke 1990, 7), in part utilising the valleys of the Calder and Darwen. Begun in 1770 as a means of providing the manufactories of the West Riding with access to a west coast port, and by way of the Aire and Calder Navigation linking Lancashire to east coast ports, the Leeds and Liverpool canal was not completed until 1820. It was fundamental in stimulating industrial expansion on both sides of the Pennines (Clarke 1990, 38), and it also acted as a magnet to textile mills, attracting steam powered mills to its banks in towns like Blackburn and Burnley. The frequent crossings by aqueduct of the canal over the river courses are amongst the distinctive archaeological features of the Ribble Catchment's industrial landscapes, as are the viaducts of the later railway crossings.

- 3.2.4 Early post-medieval manufacturing development tended to be concentrated on stream courses for the provision of water power, but it was not simply industrial inertia that led to the continued focusing of development in the river valleys. The introduction of the steam engine into the textile industry did not as has often been claimed free the industry from a dependence on sources of water. Much ingenuity is evident in the trapping, pounding and carriage of water to supply the boilers of the steam powered mills. As has been noted elsewhere, such as at Bradford, Leeds and Macclesfield (Connell 1990, 194), water supply was an important factor in the siting of steam powered textile mills in the north Lancashire valleys. The concentration of nineteenth century steam powered mills along the Darwen is a graphic illustration of the effects of this process.

### 3.3 The industrial history of the Ribble Catchment

- 3.3.1 The Ribble and its tributaries had a long history in the production of textiles. As outliers of the West Riding woollen industry, areas around Settle, Colne and Burnley had numerous fulling mills from the later medieval period. From the late eighteenth century water-powered cotton spinning mills were introduced to the area, and the fulling mill and corn mill sites were steadily converted into cotton mills (Rothwell 1990, 5). At Blackburn the weaving of calicoes grew as an important industry from about 1765, spinning only establishing itself from about 1817 (Baines 1824, 504-5). Elsewhere in the region spinning declined in the early nineteenth century in the face of competition from the towns of the Manchester area (Rothwell 1990, 5), and handloom weaving grew in response. The production of calicoes was associated throughout the Ribble catchment area in the first half of the nineteenth century with bleach, dye and print works.
- 3.3.2 By 1824 both Colne and Burnley were centres of calico production and most of the towns of the Ribble catchment area were seen to have at least doubled and in some cases quadrupled their populations from the end of the eighteenth century (Baines 1824). Much of the success of weaving in the area may have been due to the excellent communications links afforded the towns by the Leeds and Liverpool canal. Baines considered that for Burnley *"the Leeds and Liverpool canal forms a cheap and expeditious water conveyance to this place in the whole*

*line of country from the German ocean eastward, to the Irish sea westward"* (Baines 1824, 567-8).

- 3.3.3 The lack of a link to this canal system may account for the relatively late growth of Clitheroe in relation to the textile industry. Here, and in the rest of the Ribble valley, the major period of mill building was between c1850 and 1865 stimulated by the improved transport facilities made available through the introduction of railways (Rothwell 1990, 5). The other great technical innovation that stimulated the growth of the cotton industry was the introduction into the mills of steam power and the powerloom. In general the steam engine was introduced relatively early into Lancashire's cotton mills, there being 40 steam powered mills in Preston as early as 1825 (Ashmore 1969, 52), but this speed of introduction was not uniform and further up the Ribble and its tributaries there was a less rapid conversion to steam power. From the early-mid nineteenth century weaving sheds multiplied throughout the region with the replacement of handlooms with powerlooms. The number of cotton mills in Lancashire rose from 650 in 1834 to 1979 in 1862 (Ashmore 1969, 69). This was reflected in increased population growth and massive urban expansion around Accrington, Blackburn, Burnley, Colne and Nelson. Urban growth and the expansion of the cotton industry went hand in hand because of the need to house locally the large workforces employed in the mills (Williams 1995). Associated with cotton weaving but with smaller labour forces and requiring local wood supplies, and therefore often located in rural surroundings, were the bobbin mills.
- 3.3.4 By the end of the nineteenth century growth had slowed and the early twentieth century saw a progressive decline in the number of mills. Mill closure increased in the 1930s and the trend has continued through to the present day, though the majority of cotton mills had ceased to operate by the 1970s. With closure often came demolition.
- 3.3.5 In towns like Blackburn and Burnley large scale redevelopment has led to the removal of much of the evidence for the cotton industry, not only the mills but also the associated water management features such as the reservoirs, dams, leats and weirs. In towns like Darwen where redevelopment has not progressed so rapidly, there are extensive surviving remains related to cotton cloth manufacture.

### 3.4 Conclusion

- 3.4.1 The River Ribble Catchment contains an extensive and significant archaeological resource related in particular to the nineteenth century cotton weaving industry of the north Lancashire valleys. This was an industry of world-wide importance and the significance of the remains requires assessment in that context.
- 3.4.2 Necessary channel improvements and flood defence schemes are likely to threaten some of the remains listed in the database, as are less intentional developments such as erosion and tipping. It is important that due consideration is given to the various archaeological remains associated with the river systems. In addition to ancient sites of national significance such as Ribchester Roman fort, these will include the mills, leats, reservoirs, dams and culverts associated with the

eighteenth and nineteenth century industrial history of the region. Physical fabric which lends these Lancashire valleys much of their distinctive character.

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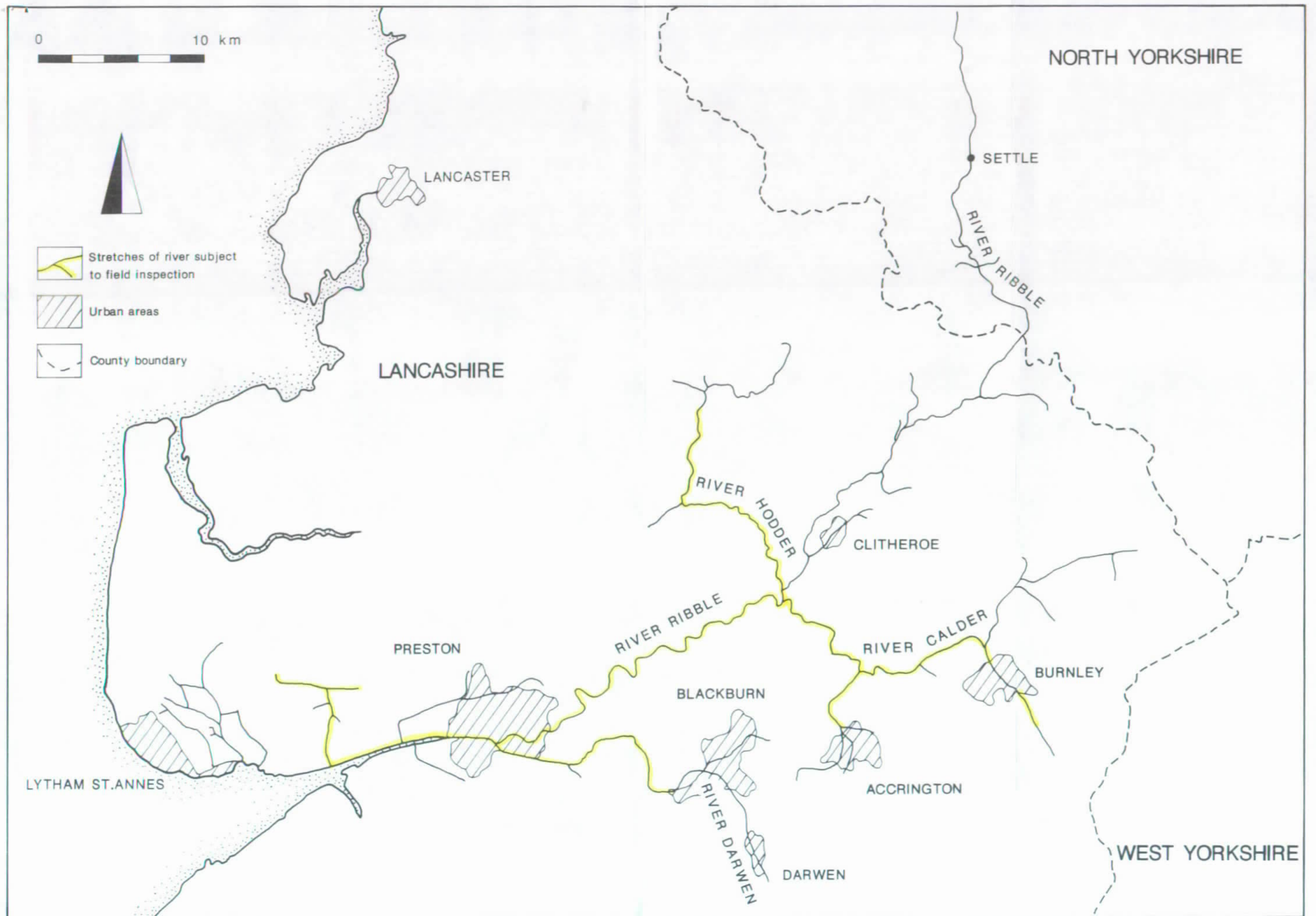


Fig.1 Study Area