JACKFIELD AND BROSELEY

Fourth Interim Report

of the Nuffield Archaeological Survey

of the Ironbridge Gorge

by

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* NB: The plot numbers referred to in the text and in the inventory are shown in Figure 1, and in more detail in a series of maps in Atlas One.

** Map dates shown in bold text are commonly referred to in the text by date only.

PLOT MAP BASED ON THE 1902 ORDNANCE SURVEY

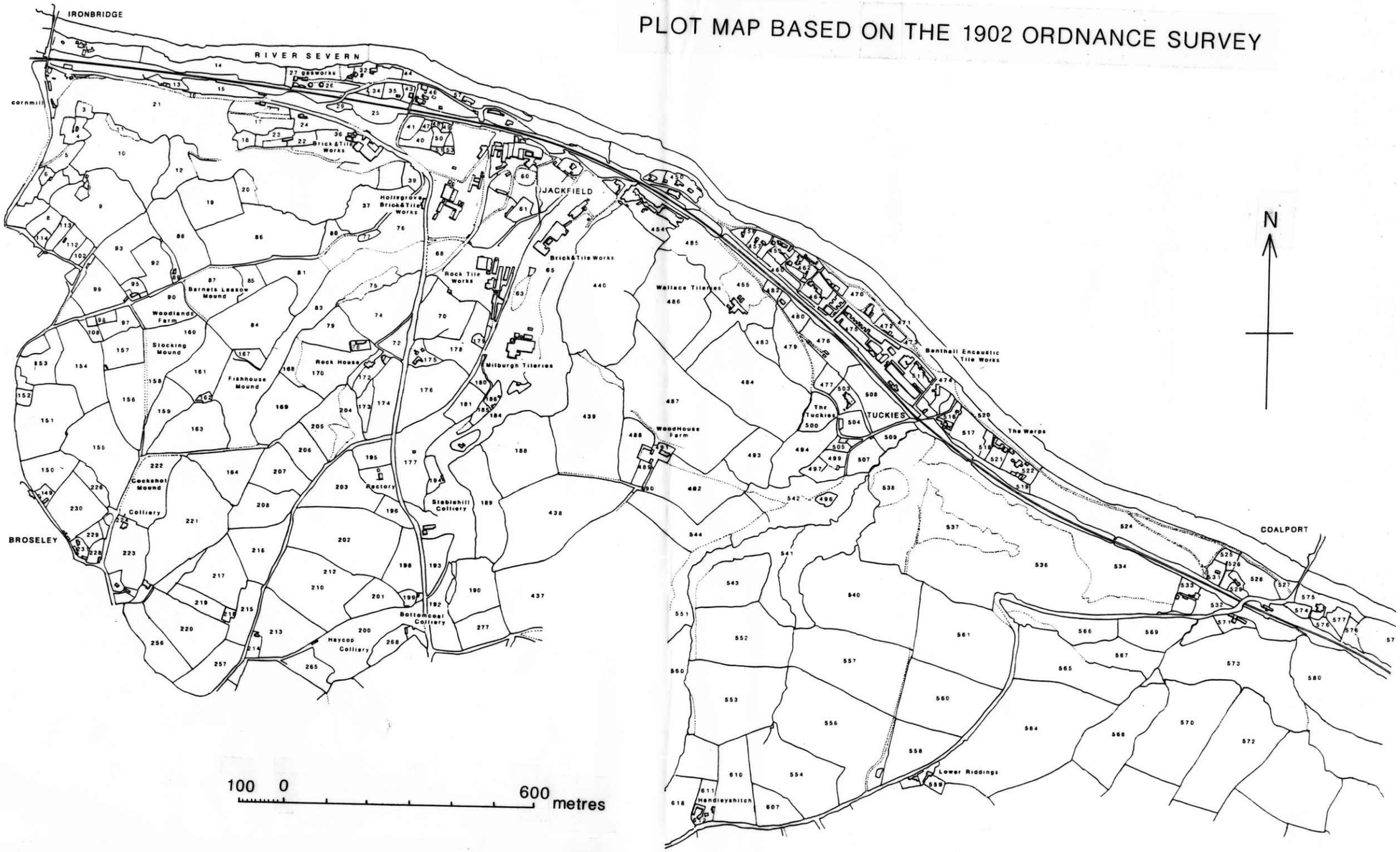

Figure 1: Nuffield archaeological survey base map, showing plot numbers referred to in text. Based on 1902 OS Map (see also atlas of plot numbers at end of text).

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Once again, the survey would like to record their gratitude to Dr Paul Stamper, who kindly made available the draft text for Broseley from the forthcoming Victoria County History volume. This work was invaluable in compiling this report.

Mr Neville of The Rock Metal Works, Ron Miles, Tony Mugridge, Mr Davis, Leslie Pugh, Pauline Hannigan, Mary Oliver, Ron Miles and John Lewis were among the people of Jackfield and Broseley who contributed to the work, but thanks must also be given also to all those residents who have in the past alerted the Museum to potential archaeological information.

The Ironbridge Gorge Museum Trust Archaeology Team, under John Malam, David Higgins and lately Michael Trueman, have made an important contribution to the understanding of the ceramic sequence of the area through excavations, and vigilant surface collections and a recent series of publications, much of which has been drawn upon here. Alison Jones' work on the pottery has been invaluable.

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Finally, our thanks must go to Nicola Smith, who joined the project as a researcher, but whose graphics have - we think - made an immense improvement on earlier Nuffield reports.

Kate Clark
Judith Alfrey
1st July, 1988.

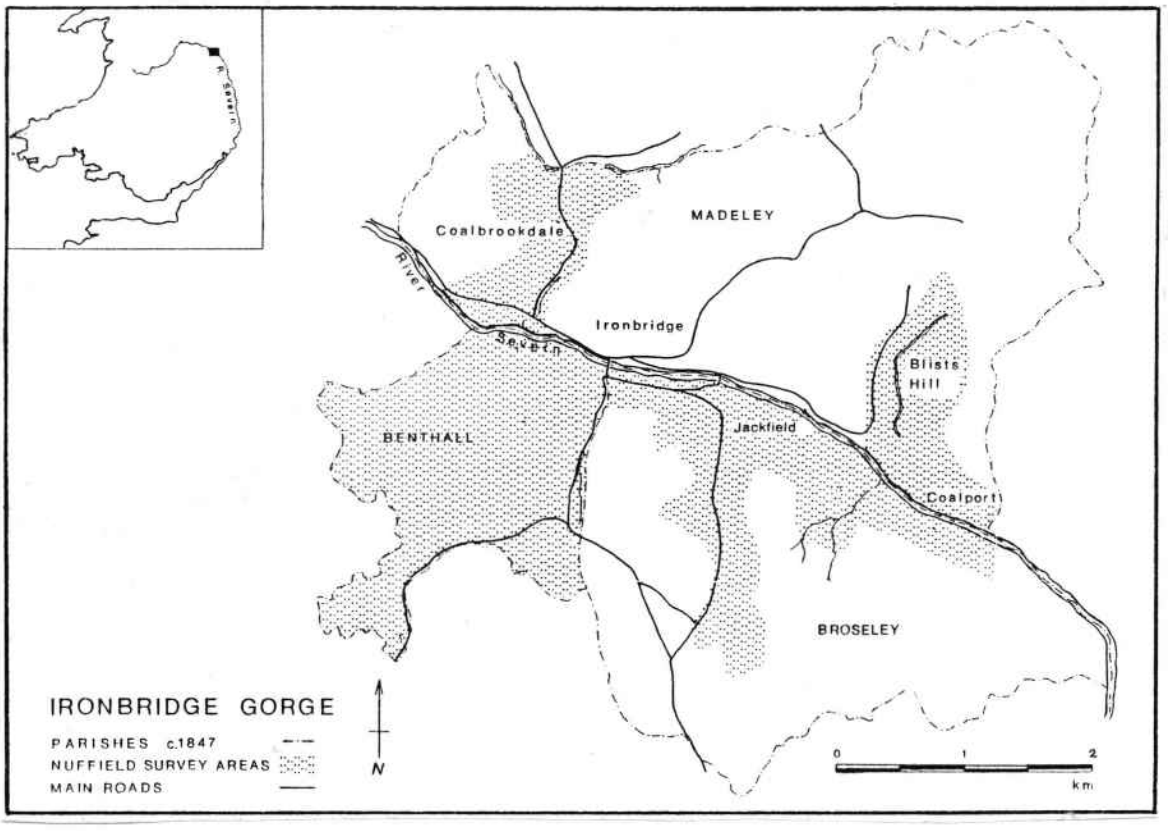


Figure 2: Survey location map, showing areas covered by this and previous reports.

CHAPTER ONE: JACKFIELD AND BROSELEY

1.1 Introduction

The archaeology of Broseley must be a priority in the understanding of the Ironbridge Gorge. Mostly excluded from the Conservation Area, and recent tourist development, it remains a little understood parish. The subject is vast, and this report sets out to do little more than create an agenda for the areas which might be studied in detail, focusing upon the Jackfield, but raising issues for the whole of the parish.

Broseley provides data for the study of the process of industrialisation - a thriving 17th century coal industry with some very early innovations in transport and mining technology, laid the foundations for the later prosperity of the Gorge. It was often money made from coal, or transporting it, which provided the investment for 18th century enterprises. Broseley played an vital role in the 18th century expansion of ironworking but, unlike the north bank of the river, local industry did not wind down in the 19th century. Instead, there was a massive expansion in the brick and roof tile industries, which were to dominate the parish into the 20th century.

If in the early 19th century one was offered a "Broseley", one would have been a tobacco pipe smoker; later in the century one would have been discussing a very hard type of roof tile. The ceramic industries of Broseley played as much a role in the intensification of industry as did iron, and as such had a national reputation. Pottery, bricks, roof tiles and later sanitary pipes were manufactured continuously in the parish over perhaps 250 years. As in the iron industry it is possible to observe complex cycles of change and decline, innovation and stagnation.

The industrial revolution in the Gorge has been seen very much in terms of the iron industry. It would be equally possible to identify an industrial revolution in the clay roof tile industries of Broseley in the 19th century. Perhaps it is more logical to consider local industrialisation as a changing pattern of mineral exploitation - the mines which supplied the early coal industry, and later the iron industry, may well have continued in use for the extraction of clay; ironworks moved into brickmaking, the same transport networks served both clay and coal and brickmakers were coal miners. It was the mineral wealth of the area, rather than the individual industry, which provided the basis and continuity for industrialisation.

1.2 The Area of the Survey

It is impossible to write about Jackfield without discussing the wider parish of Broseley, covering some 1991 acres on the south bank of the River Severn. The centre of settlement - Broseley itself - is located to the south west of the parish. To the east is mainly agricultural land, and Jackfield forms a secondary settlement along the banks of the River Severn to the north.

It has been necessary to place the settlement and archaeology of Jackfield in the wider context of the rest of the parish. This report therefore calls upon aspects of the archaeology and settlement of Broseley as a whole, but cannot claim to provide a complete archaeological survey of the whole parish. The study has taken as its

main area the slopes of the Ironbridge Gorge, from the Coalport Bridge to the Ironbridge, bounded to the south by the agricultural area, within which, Jackfield provides a focus.

1.3 The structure of the survey

The Nuffield Archaeological Survey is a two year project, aiming to provide a complete archaeological survey of the Ironbridge Gorge, Shropshire. The survey has been funded by the Nuffield Foundation, and is based at the Ironbridge Institute at the Ironbridge Gorge Museum.

This is the fourth interim report of the survey; the first covered Coalbrookdale, the second Coalport and Blists Hill, and the third Benthall and Broseley Wood. The first report set out in detail the terms of reference, methodology and objectives of the survey. The fieldwork for the project was carried out between August 1987 and January 1988.

This report contains three elements - the **main text** which discusses some of the themes in the settlement and archaeology, the **inventories**, which provide detailed descriptions of the archaeology and the buildings at each location and at the very end the complete summary of all numbers, the **plot list.** The numbers within the text refer to the inventory at the back, and **both the text and inventory should be used in conjunction with each other.**

The numbers used in the inventory refer to the **PARISH**, the **PLOT NUMBER** and the **CONTEXT NUMBER.**

BY Prefix for Broseley Parish
053 Number of plot on Ordnance Survey Map
03 Additional context number for each feature on that plot.

Thus the whole number would be written BY 05303.

This study is based on a plot by plot survey, whereby archaeological and architectural remains on each plot of land are recorded. The system allows all the evidence of whatever type for one location to be recorded together. The plots have been taken from the 1902 Ordnance Survey map coverage for the Gorge. The plots are shown on the map at the beginning of the report, which is traced from the Ordnance Survey map, but can also be seen in a series of map extracts at the end of the report.

1.4 Note on Textual References

Much reliance has been placed on the use of map evidence for Broseley, and in order to simplify the referencing system, a date shown in bold (e.g. **1621**) refers to a dated map. These maps are listed in date order at the end of the Bibliography. Otherwise the Harvard system is used throughout.

The notation VCH refers to the draft text of the forthcoming Victoria County History of Shropshire, Volume 10 for the parish of Broseley (see section 1.9 below). Numbers such as BY87A, refer to excavations or sites investigated by the IGMT archaeology unit. Numbers prefixed by IGMT refer to material held in the archives of the Museum. Commonly used paintings are referred to by the artist and date, and listed in

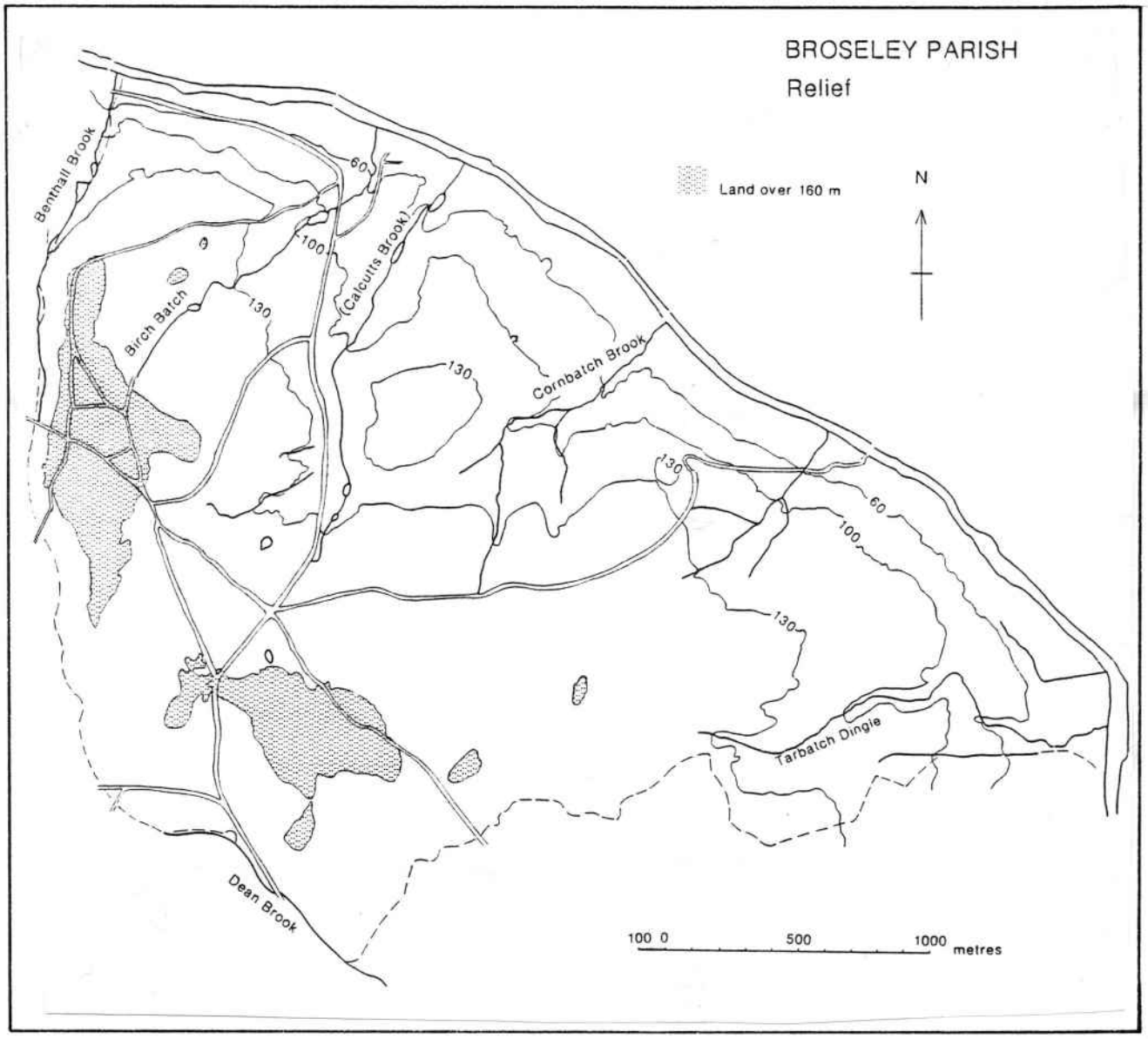


Figure 3: Broseley Parish - physical geography.

the bibliography.

1.5 Placenames

The name Jake's or Jackfield, first mentioned in 1510-11 (VCH) and mapped in 1728, referred to a field on the riverbank, where the present Craven Dunnill works stand. Perhaps Jackfield as a term for the area as a whole only came to be commonly used after its incorporation as a separate ecclesiastical parish in 1862. In 1753 it was still referred to as a parcel of land (SRO 1681 box 33), and in the censuses it was one of a number of small locations. The name Severnside may also have been a common name for at least part of the area in the 1630s (e.g. Weld 1630).

But the area now known as Jackfield comprises a number of small places, referring originally to either fields, or to individual settlements. The census returns for 1841 (McKelvey 1985) indicate the most common names:

Ladywood - originally referring to the house marked in **1621**, with "Yates Coppice" more commonly used for the area to the west, the name gradually came to refer to the whole of the wooded slopes of the Gorge from the Benthall Brook to the site of the Ladywood Brick & Tile works. Area probably also included Beards Coppice, and Cherry Tree Hill mentioned in the original brickworks deed.

Barnets Leasow - field name associated with the Old Hall, a timber framed building which stood about 100 metres downstream from the Dog & Duck (Randall 1879:84), and later applied to the ironworks built there. Randall's recital of the deeds for Holly Grove works indicate that Barnets Leasow was part of the 11 acres of land associated with the hall. The name was also used for a coal mine to the south west, high on the hill near Broseley Wood. There are also "Upper" and "Lower" Barnetts Leasows in the same area in the 19th century.

Coalford - presumably derived from lowlying are of river bank, used for wharves and loading coal to the east of the present Ladywood Bridge.

Holly Groves - or Holigreaves (and other variations) used from at least 1614. Thomas Potts was a master collier there in 1692, and the parcel was bounded by the River Severn, Chilkuns Brook and the "footway above the house in Broseley, late George Potts" (1224/3/514). In area of the Hollygrove Brick & Tile works. The name may also relate to the well and brickworks site known as "Holliwell". The area was the estate of Samuel Edwards, who sold it in 1743 to George Weld (SRO 1224 abstracts).

Lloyd Head - area on the south bank, by Coalford, opposite The Lloyds on the north bank of the river. William Davis was brick & tile maker there in 1814. Head or heading refers to the entrance to a tunnel or mine.

Calcutts -(or Calcotts) mentioned as part of Harewells manor in the 15th century (VCH draft), the name refers to two entities - firstly the location of the pit mined by Clifford in 1608, to the Calcotts estate and by **1840** to the group of houses around the ironworks of that name. By **1728** the Calcotts pit was not on the Calcotts estate.

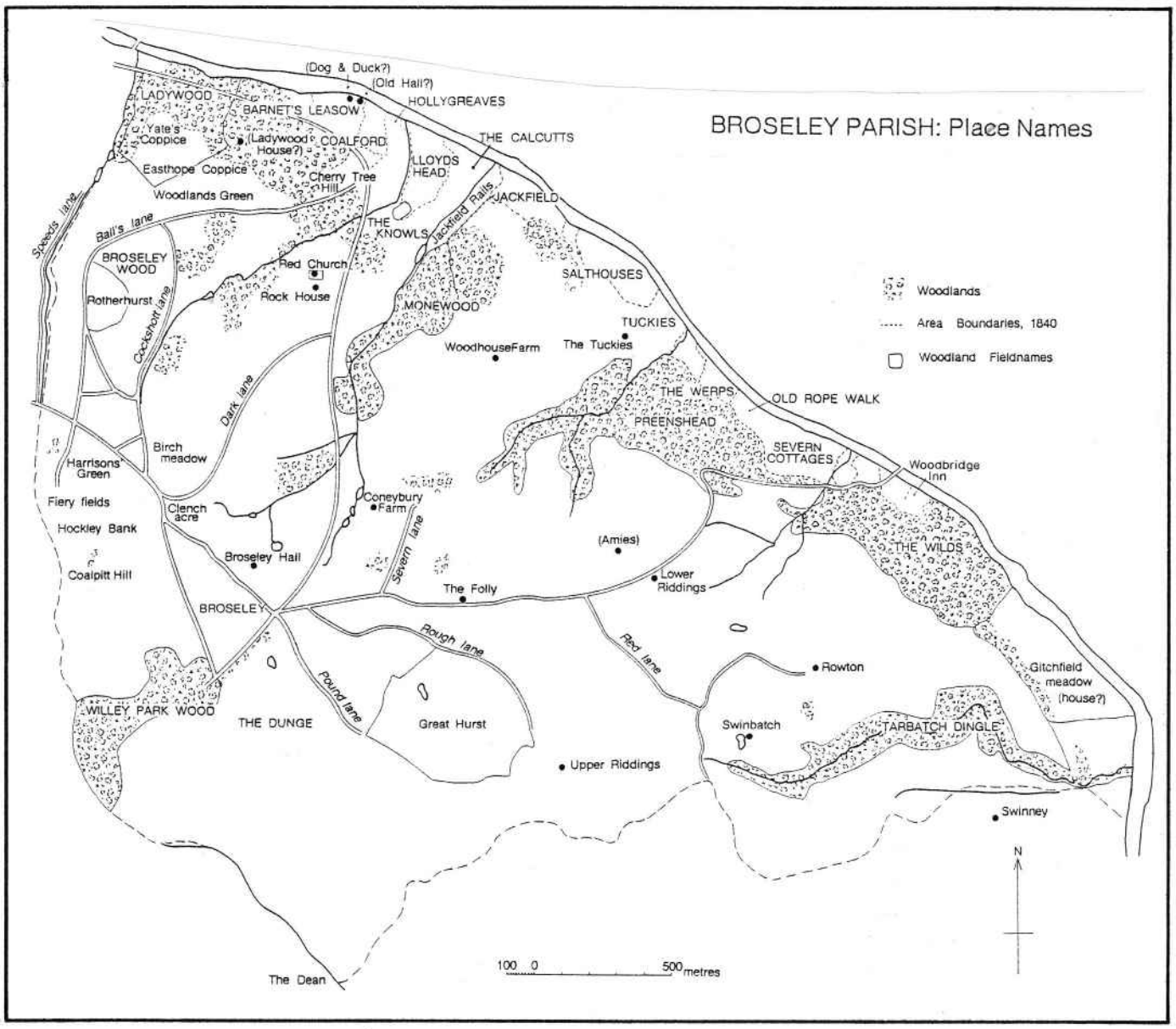


Figure 4: Broseley Parish - placenames used in text.

Knowles - presumably the area around Knowles Pit, a 19th century mine.

The Rock - specifically the name of the house occupied by William Exley, the brick and tile maker. Probably on the site of an earlier house (**1676** and Farington 1789 show a large house here). Refers in the census to the surrounding group of houses just south west of Jackfield.

Jackfield Rails - seems to refer to the area of the 19th century tramway route, between Milburgh Tileries, the Rock and Doughty's Brick and Tile works, and would have included the corn mill there in **1840.** The rails date to the early 18th century (**1728**).

Jackfield - the precise area of the field is shown **1728** and the settlement refers to the group of houses east of Calcutts.

Salthouses - name derives either from the use of buildings to store salt, or the brine springs from local coal mines from which salt was produced. An old timber-framed house known as "The Salthouse" is depicted by Forrest (1915). There may also be a link to the salt-glazed pottery industry for which there was evidence. Almost all of the settlement was damaged in the landslip of 1952, and subsequently demolished. Settlement evidence indicates at least a 17th century origin.

Tuckies - (or Tuckeyes) name of the 17th century house and earlier timber framed building, known by 1575 when James Clifford was dumping spoil into the river from a pit there. The name was applied to the surrounding farm adjacent to Corbatch or Cornbatch dingle.

The Werps - settlement to the east of the Maws tileworks, of which very little now remains, much having been demolished post **1927** because of unsanitary housing conditions.

Old Rope Walk - area to the east of the Werps, now a rough area of river bank, with some evidence for former rope making (see Chapter Four).

Preens Eddy - refers to the small settlement on the southwest side of the Coalport Bridge. The wooded slopes of the gorge at the back of this area are known as Preens Head or Preens Heading, again likely to be the opening to a mine or tunnel.

1.6 Geographical features

Jackfield lies in a wide valley between two streams - Birch Batch, and the so-called Calcutts Brook. The valley slopes gradually from about 100m OD to the river at about 30m OD. To the east, the Gorge falls steeply through through Ladywood towards the river. To the west, the land slopes much more gently, punctuated by Corbatch Dingle, a series of small streams, and Tarbatch Dingle.

A small stream runs through Birch Batch from the south end of Cockshutt Lane in Broseley, north east towards the river, emerging to the east of what is now the Free Bridge. It falls some 130m over about one and a half kilometres. There was a mill on the stream in the 16th century, but otherwise the stream did not have significant use as a source of waterpower. The stream can be seen today where it passes through the site of the old Hollygrove Brickworks, but has partly been

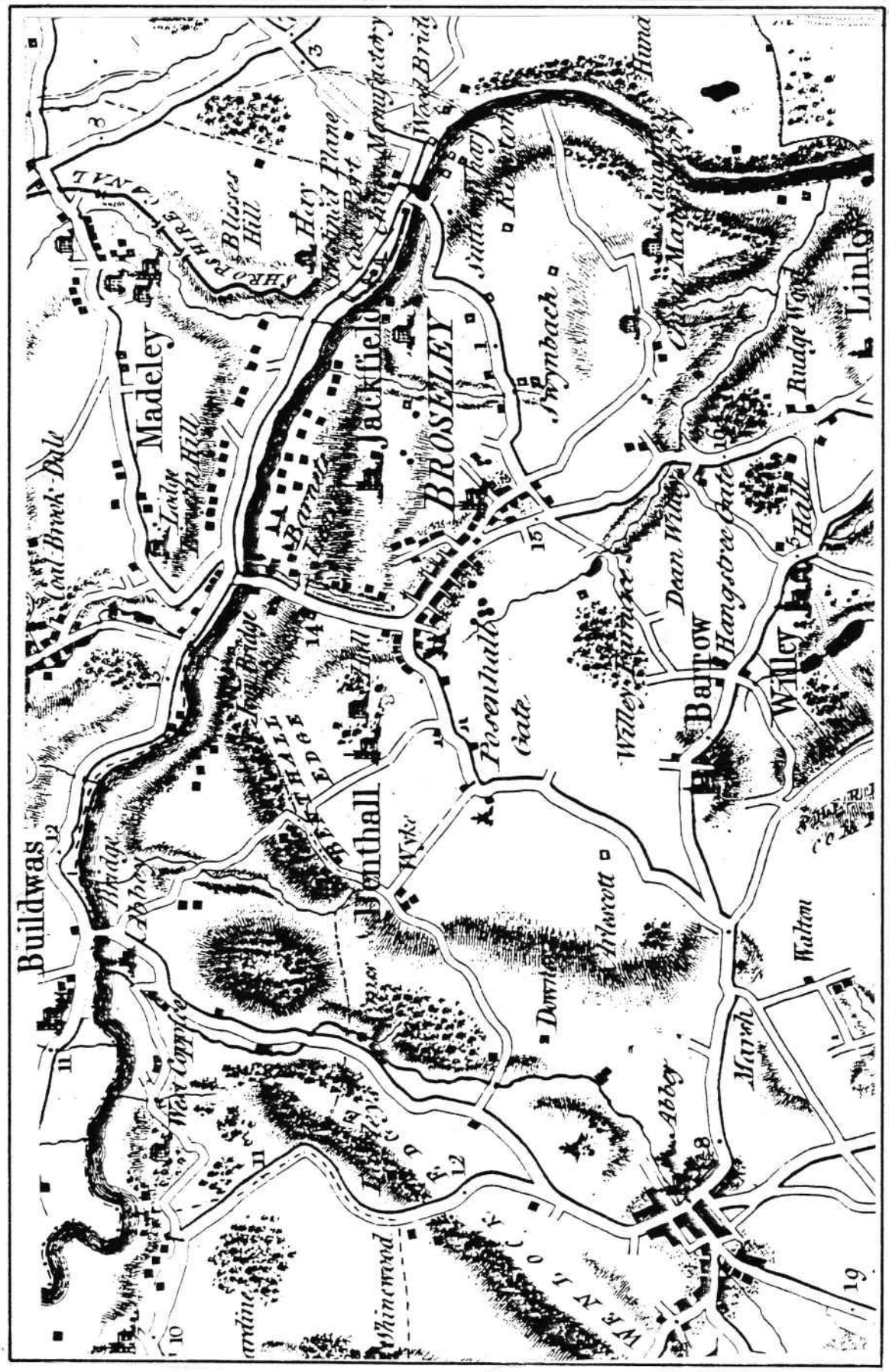


Figure 5: extract from Robert Baugh's Map of Shropshire, 1808.

culverted. The stream may also have been known as Chilkuns Brook, the brook bounding Hollygreaves (see above).

The name of the brook through the Calcutts estate is not known, and "Calcutts" is applied for convenience, the brook forming the eastern boundary of the estate. Three small tributaries come together in the field to the north of Coneybury farm. One rises at the Down well, the second in the area north of Church St. This tributary itself has two branches, and there is evidence for pools in the area north of the Broseley Church. The third, and main branch, of the brook rises in the vicinity of Temple Cottage, and falls almost 130m to the river. Clearly this brook was used at the Coneybury Furnaces, and water was recycled at the Calcutts Furnaces from "Mapps" Pools. Details of the pools on the stream can be seen in **1728.** There were two mills in the Jackfield area on the stream (see Chapter Seven).

Also known as Cornbatch (**1728**) or Corbetts Dingle (**1883**), the stream through Corbatch dingle runs from an area to west of Upper Riddings Farm to the river, just by the "Boat Inn". No evidence for use of water power.

The River Severn is of central economic importance to Jackfield. The settlement extends along some 2km of river bank as it turns south east after passing through the steepest part of the Gorge. The Gorge is a relatively new in geological terms, and the river is still in the process of eroding a steep valley. As the river turns south east there is a general pattern of erosion on the north bank, and deposition on the south, although mining subsidence and slip have led to considerable loss in recent years from the south bank. The River Severn is characterised by seasonal extremes in water height - in parts of the Gorge it is less than a metre deep in summer, whereas flooding is common in winter. Major floods occurred in 1770 and 1795; the latter damaging the Buildwas and Coalport Bridges. Despite attempts in the late 18th century, the river was never made fully navigable.

Navigation in the Gorge itself was hampered by at least two factors - the Jackfield rapids* which are only passable in high water conditions, and the problems resulting from the construction of medieval fish weirs. There were at least three, and possibly more, weirs in the Jackfield area (see Chapter Two and Four), created by digging out the river bank, and providing a barge channel to carry traffic around an island and fish trap. Continuing gravel deposition has enhanced such features, creating artificial mounds within the river. The weir opposite Bedlam was probably enhanced by dumping from the furnaces, and many boats went aground at "Eves Mount" there.

There was a ford at Gitchfield, and probably Coalford, although in 1741 the Coalbrookdale company contributed 5s to digging out fords on the river (Trinder 1981:68). Thereafter ferries, and the bridges at Bridgnorth and Buildwas provided the only crossing points until the construction of the Wood Bridge in 1780.

* Note - there is some evidence for the enhancing of these rapids by the Telford Canoe club, who dumped concrete blocks etc to make them more challenging (Hughes, pers. comm)

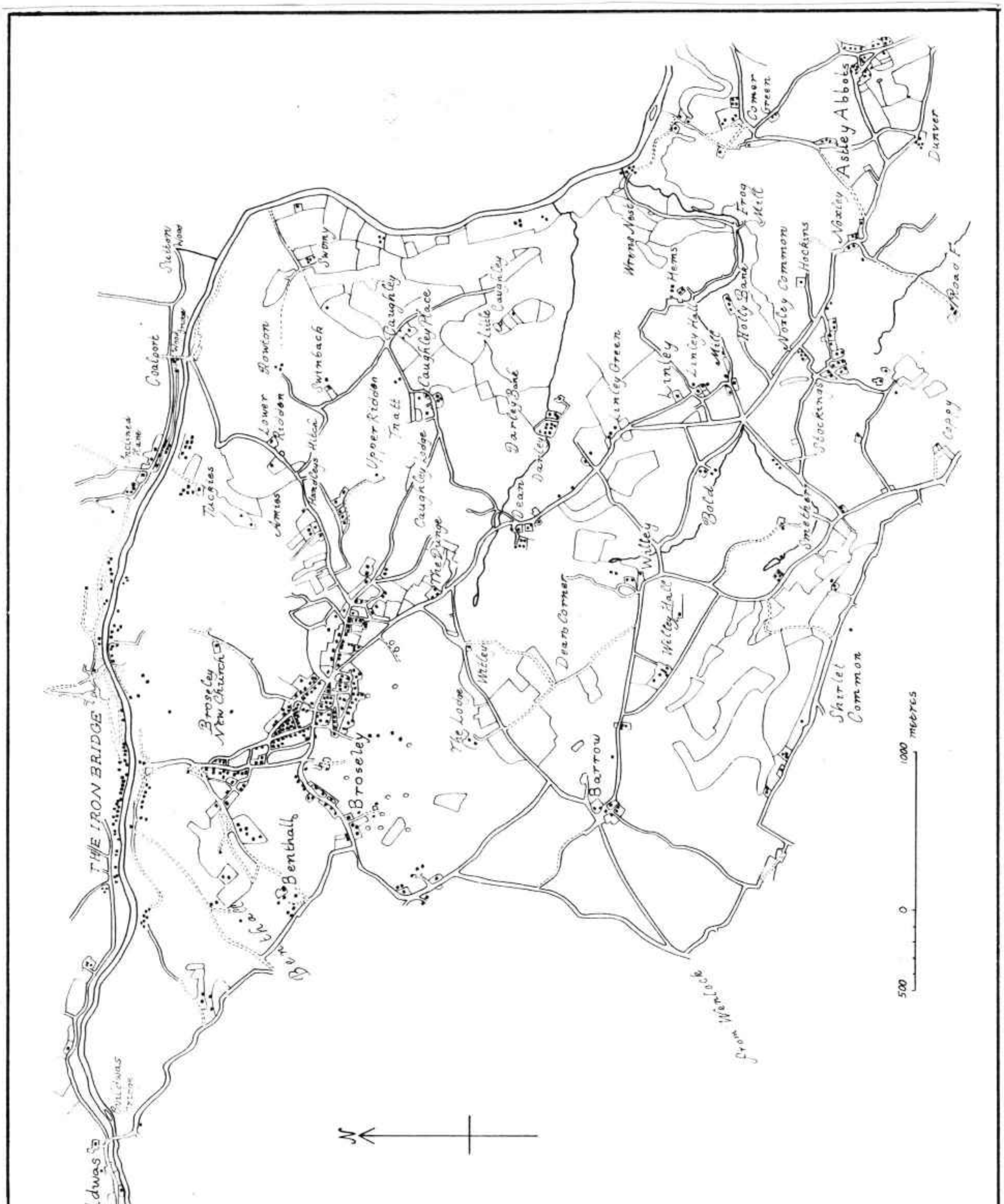


Figure 6: Extract from first draft of Ordnance Survey Map, Sheet 213, 1814-15.

1.7 Geology

The coal, clays and ironstones of Jackfield played an important role in determining the location of the early settlement, as well as having a long term effect upon the contraction of settlement, as flooded or exhausted mines and unsuitable clays affected the traditional prosperity of the area. The geology of individual seams will be discussed in Chapters Three, Five and Seven.

The northern and eastern parts of Broseley lie on the Upper, Middle and Lower Coal Measures of the Carboniferous formation. Jackfield itself is traversed by a series of faults running in a north easterly direction - from east to west, they are the Jockey Bank, Jackfield and Doughty Faults - and the Madeley Fault running north/south. The effect of these faults is to upthrow the measures to the east. At the same time, the Benthall Brook and the River Severn have cut through the coal measures so that seams out crop on the surface. Thus the overall pattern is that the measures which outcrop on the surface in the Ladywood area, are found deeper and deeper to the east and south (Geological Survey, sheet **SJ 60 SE**).

The most important seams are the Best Randle and Clod, Ganey, Viger and New Mine Coal seams in Ladywood. In Jackfield only the Main Sulphur coal outcrops, and further east seams are reached through deep mining. The Pennystone Ironstone outcrops in a band across Ladywood. Workable red brick and tile clays occur in the Hadley Formation, on the surface in Jackfield, and on the high ground around Balls Lane. Carboniferous limestone is found in the parish around Inett Farm. Although numerous, many of the coal seams in Broseley are much thinner than those in the coalfield to the north.

Tar is supposed to have been collected from wells in Tarbatch Dingle and a burning well was found 1711 "about sixty yards from the river Severn, in the parish of Broseley, at the foot of a gentle, but rising hill, encompassed on every side with coal-works although none very near it (Randall 1879:91-2). A further pit was dug in 1747, but when another coal pit was dug four years later a reservoir of sulphurous brine was found. The pit was drained, and ignited, and the burning well went out for good (see Chapter Seven).

Spreads of glacial clay useful for brick and tile making are found to the south east of Broseley at the Dunge.

1.8 Landslips

The south bank of the River Severn has a history of land instability. Ammendments to the Broseley Hall Estate Map (**1728** and **c1765**) indicate slipping in Cow Pasture (to the east of what is now Craven Dunnill Site) in about 1765 and cracks began to appear in the Ironbridge in 1784. This century there was a slip at Jackfield in 1925 and a major slip affected the Salthouses area in 1952, causing 18m displacement (Brown 1975:481). The slip was analysed as a sheet slide, triggered by an excessive rise in pore-water pressure, affected by increased mining and the weight of surface deposits (Henkel & Skempton 1964). The extent of underground working from the Jolly and Bonny Pits, and the Cornbatch Pits (**1728**) must have had some impact on local conditions.

The geological survey (SJ 60SE) indicates rotational slipping

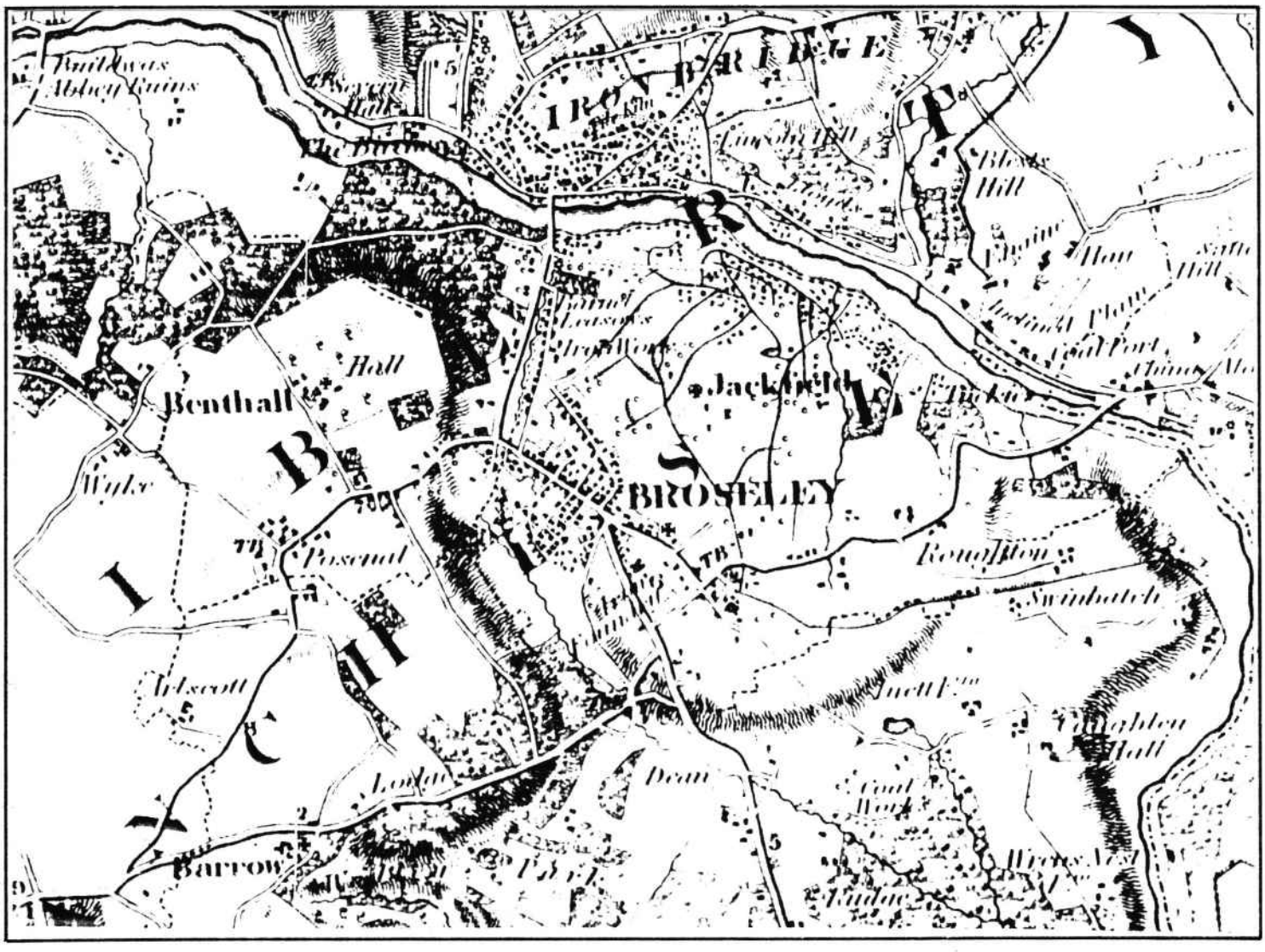


Figure 7: Extract from Map of the County of Salop, by J. & C.Greenwood, 1827.

currently affecting a band stretching eastwards from the Calcutts Brook, along the river bank towards Tarbatch Dingle.

1.9 Historical Sources for Jackfield and Broseley

Unlike Benthall Parish, Broseley was until the early 19th century, divided into many different estates, the papers of which have survived to a far greater extent. Also Broseley, as the principal town of the area until the early 19thC, is far better documented than Benthall. The following are the most important collections available in the SRO:

Tyrwhitt-Jones Collection - includes records of the Huxley family, particularly for the land at Yates Coppice until the estate was broken up in the early 18th century. Includes useful material on early coal mining and railways.

Forester Collection - leases and papers relating to the following estates for the Jackfield area - the Manor of Broseley, Cockshutt Lane, Yates Coppice, Ladywood and Hollygreaves. Not available for public consultation.

Cooper & Co (Broseley) - papers of Broseley firm of solicitors; particularly good for 19th century brick and tile making.

The census for 1881 has been transcribed, and that for 1841 for the Jackfield area (McKelvey 1985). Unpublished probate inventories were made available by Dr Trinder, for the period from roughly 1660 - 1760 (Trinder forthcoming). The parish registers of Broseley from 1570-1700 have been published (Langley 1889), and the Land Tax has been transcribed by Richard Morriss (IGMT library).

Dr Paul Stamper has kindly made available the draft version of the forthcoming chapter on Broseley for the Victoria County History of Shropshire, volume 10, which deals very thoroughly with the historical material for the parish. Otherwise, the principal written sources for Jackfield are Randall (1879, 1908), Trinder (1981) covering industrial development. Specialist works include Dawes' detailed work on the brick and tile industries, John Malam's work on salt glazed pottery (1981), Rimmell on the Jackfield Tile works (1983), Savage & Smith (1965) and Lewis (1974) on railways. Wanklyn 1982 is a valuable if tantalising foretaste of his current historical analysis of the parish. Tony Mugridge is at present preparing a useful set of small local guides.

1.10 The significance of Broseley

In preparing this text, we were very aware of the lack of research interest focused upon the south bank of the river. The achievements of the Coalbrookdale iron industry in the eighteenth century have attracted the attention of many historians, and in doing so have eclipsed the important developments on the south bank. Some of the earliest railways in Britain, 17th century experiments in mine pumping, a nationally important clay tobacco pipe industry and more recently a roof tile industry of great significance can all be attributed to the parish, as well as the better known exploits of John Wilkinson. Broseley products were exported to America from the 18th century, and Broseley roof tiles were famous in Europe in the 19th century.

Thus this report has become, in parts, a broad agenda for the understanding of Jackfield and Broseley. We have identified some of the issues we feel to be important and hope there will be opportunities for others to follow. Many questions remain unanswered - in particular the archaeology of the 18th century pottery industries at Jackfield, and their relation to those at Stoke on Trent; the origins of riverbank settlement, and the precise workings of the very earliest railways.

The town of Broseley itself is very poorly understood - our brief investigations in Broseley Wood in the third interim report of the survey, and work at the King Street Pipeworks have made us aware of the potential information which might be gained from the town. The processes of industrialisation are reflected in the buildings, and the response of the settlement to the changing agricultural/industrial order is epitomised in the structure of the settlement. In conjunction with a complete demographic profile of the parish (Wanklyn 1982), the study of Broseley could be of vital importance in the understanding of the processes leading to the industrial revolution.

CHAPTER TWO: EARLY SETTLEMENT IN BROSELEY AND ON THE RIVERBANK

2.1 Introduction

There is very little evidence for the settlement of the Ironbridge Gorge before the eleventh century, when much of the parish seems to have been heavily wooded. Roman remains have been found at Harley, Wroxeter and Red Hill, and Wenlock and the area to the south of Bridgnorth have Saxon origins, but the main transport routes effectively by-passed the corner of the river in which Broseley is situated.

In the Domesday survey, the Abbey of Much Wenlock held the large parish of Wenlock which incorporated what are today the parishes of Caughley, Linley, Benthall and Posenhall as well as Much Wenlock itself. There is some debate as to whether Broseley is the Bosle of Domesday, or whether like the other parishes above, is incorporated in Wenlock (VCH x, Thorn 1986).

2.2 Woodlands in Broseley

On the steep slopes of the Gorge north of Broseley, woodland is found even today - the remains of a very clear division of the parish into woodland to the north along the banks of the river, and agriculture around the town itself. Domesday recorded two "haia" or enclosures for keeping deer in Wenlock, implying that there were grounds for hunting in the parish. The area of the parish was within one of the Royal Forests, and was thus subject to forest law which restricted such activities as cutting timber, or killing game. Broseley lay between the Long Forest (extending between Much Wenlock and the Long Mynd) and Shirlett Forest. Although still under forest law there is increasing evidence for settlement in the twelfth century. The suffix -ley (leg or lea) meaning forest clearing is found in such settlement names as Linley, Caugheley, Willey and Broseley (VCHi).

The prior of Wenlock was fined for assarting (clearing land) in Broseley in 1250, and other individuals were granted land One of the earliest identifiable settlements is a grant in the 1230s to Robert de Haia of land in Burwardeleg held by Roger de Palmer,called Palmers-Croft and the Dune, and a messuage called the Rudinge. Farms such as Woodhouse, present by the 13th century, also indicate clearance. Warin de Burwardesley appeared in records of the royal forest during the twelfth century, being fined for trespass on the royal forests, for building a mill, and for other breaches of forest law (Eyton 1855ii:5,6,12,32). The parish was disafforested in 1301.

Nevertheless, there continued to be areas of woodland in the parish. In 1417-8 sales of wood from the demesne Astwood produced £5.6s.8d. The slopes of the Gorge, and the small streams running down into the river continued to be wooded, and there was a large blocks of woodland to the north west of Broseley (Broseley Wood, Rotherhurst) and to the east (The Great Hurst), as well as on the parish boundary with Caughley (**1621**). In 1609, there was still some 60a of wood in the manor itself (VCH x).

2.3 Settlement to 1545

Between 1107 and 1115 Wenlock Priory was able to reorganise its holdings of land by amalgamating them into the one parish, the

Figure 8: Map of Broseley, c. 1621 by Samuel Parsons (tracing).

"Liberties of Wenlock" which gave the priory the right to hold manorial courts, to receive fines and to be exempted from forest restrictions. In effect they had the right to clear, build and settle new lands. Under Prior Humbert (prior 1221-60) a programme of active land development took place. (VCHii:38ff). It was at about this time that open field agriculture first appeared in Broseley.

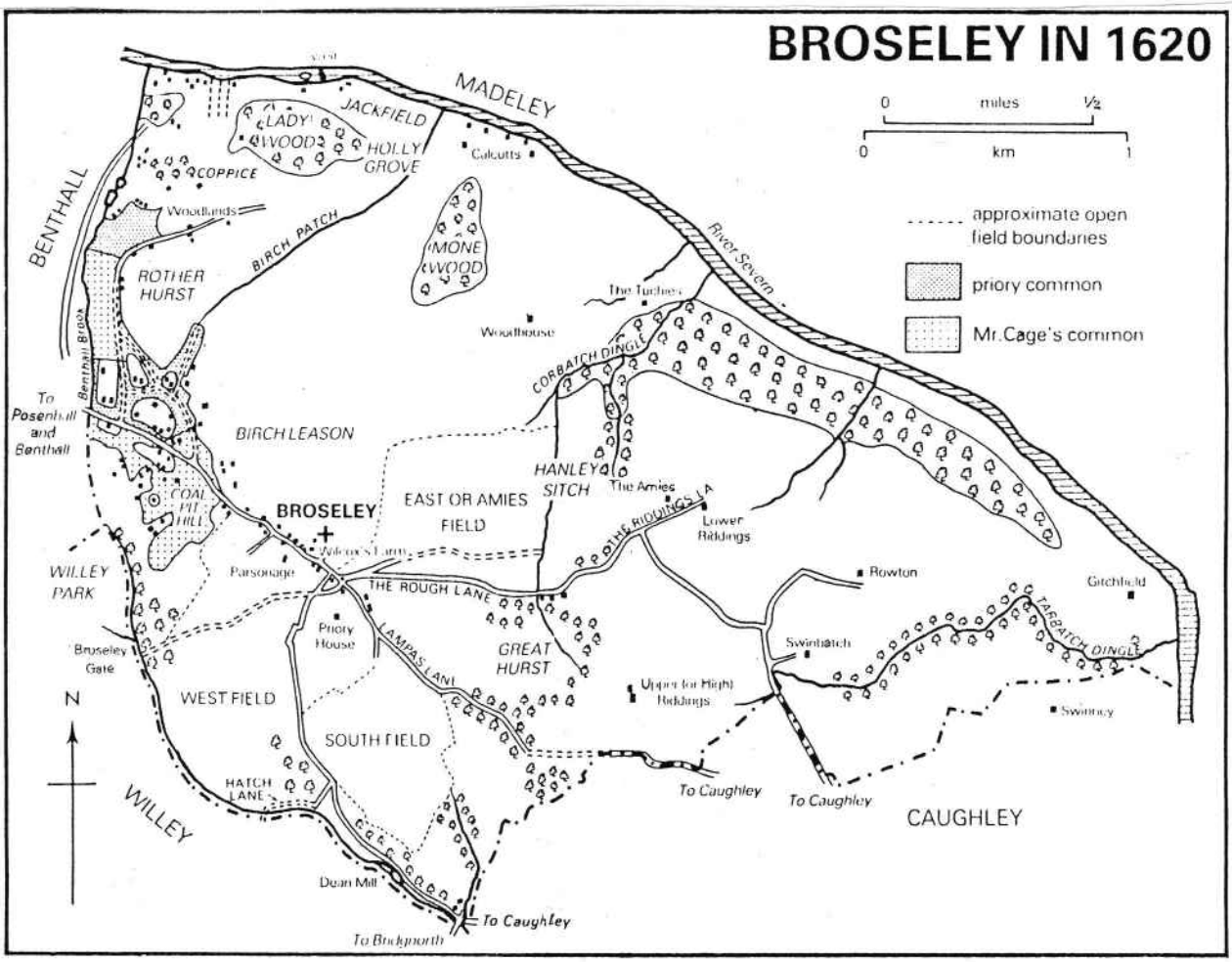
The medieval settlement of Broseley lay around the intersection of five roads, half a mile to the east of modern Broseley. The settlement is represented by the sire of the manor, a chapel in existence by 1230 and a group of houses built on the site of or near the manor by 1426. The identity and location of the manor had been forgotten by the nineteenth century, and from map evidence the original manor house may have disappeared by the 17th century (**1621**). However archaeological evidence for the chapel may have been found during the rebuilding of the Broseley church in the 19th century (Randall 1879). From the village centre medieval roads led north-west to Posenhall and Benthall, south to Bridgnorth, east to the Riddings and Caughley, and the whole settlement may have formed a classic radial village form as recorded in a number of West Midland parishes (Roberts 1979).

Around the settlement radiated roughly triangular wedges of agricultural land, woodland and common. The pattern of common fields in Broseley, established by the 13th century, can be traced back from a series of later maps (**1621**, **1686**, **1840**). Two areas of small fields, occasionally linear, characterised by a fragmented ownership pattern and a piece of Glebe land in each suggest the documented South (or Polefield or Codsbrook field) Field, and East (or Amies) fields. Small strips such as these were held in different ownerships as late as 1838. A third field can be located from the **1621** map - the West field with common land close to the town and strips to the south and west. By 1838 that land was in the ownership of the Forester estate, and only field names such as Barley Furlong remain as survivals of medieval agriculture. Land was farmed in strips between 120 and 150m long, and perhaps 10m wide, many of which were grouped into long fields. The strips ran generally north/south, NE/SE or perpendicular to that. There is a suggestion of further strip agriculture to the north east of Broseley in the area later known as Wilcox's farm.

The agricultural land was reasonably well sheltered and drained, some on spreads of boulder clay, and generally of better quality than the common lands which stretched down towards the River Severn and Benthall Brook on the north west margin of the parish. Further common land also lay in West Field, near the settlement of Broseley.

Of the large farms to the east of the parish, the Riddings was in existence before disafforestation, but estates such as Rowton, Swinbatch and the Tuckies may have been established soon after the ending of forest law (VCH x). These were all freehold estates, and distinct from the manor itself. The Woodlands estate to the north west of Broseley was another such woodland clearance.

The manor itself held lands in the west of the parish. In 1244 it was divided into three, one third of which passed to the prior of Much Wenlock, the remainder remaining with the manor. The third held by the priory was directly farmed with the Manor of the Marsh, and remained associated with it until the Dissolution (there is a very detailed discussion of this period in VCH draft).



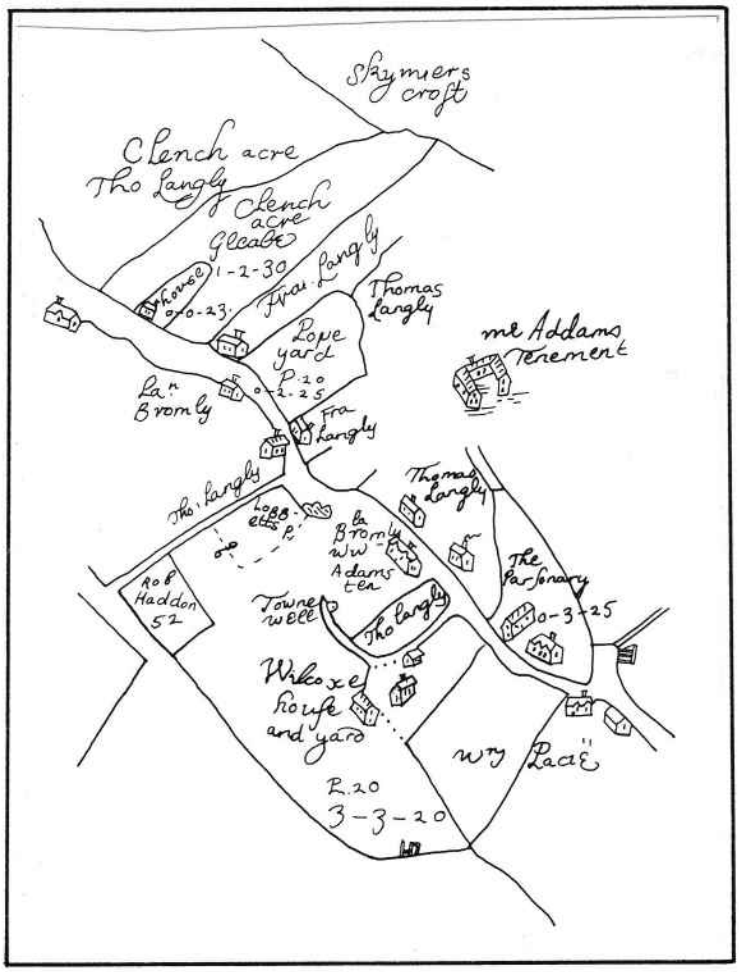


Figure 9: (top) Broseley, 1620 courtesy of VCH.
(bottom) Broseley old centre, traced from "Map of Langley's Tenement" c. 1658 SRO 1224/1/33.

2.4 Medieval 'Industry'

Warin of Burwardesley built a mill in the parish in 1188, and there were two there in 1545, held by the priory of Wenlock. One of these was located on Birch Batch, however, subsequent mining activities has destroyed any obvious traces of the mill. The other may well have been on the Dean Brook to the south of Broseley, where there was still a mill in the 19th century (**1840**).

Sandstone was taken from Broseley to Buildwas Abbey by river. It has been assumed that it was mined at "The Quarry" area of Broseley Wood (Randall 1879), but the stone also outcrops in Ladywood and in Tarbatch Dingle where it was mined in the 19th century. The red clays of Jackfield were almost certainly the source of clay for the local medieval tile industries, represented in the tiles found at Much Wenlock, Buildwas and Benthall (see Chapter Three). Coal was mined in the parish before the Dissolution at High Riddings.

2.5 The pattern of ownership after 1545

Wenlock Priory was dissolved on 26th January, 1540 - it was one of the richest monastic establishments in the county, and still held most of its lands (VCHii:44). The Dissolution provided an opportunity for the development of land and particularly mineral resources by individuals on an unprecedented scale.

2.51 The Estate of James Clifford

After changing hands several times, the Priory third of the manor was bought by James Clifford in the 1560s. Clifford, of Frampton on Severn, added this to the other two thirds of the manor which he had already inherited, and moved to the parish as resident Lord of the Manor. He built himself "Priory House" a mansion on land to the south of the centre of the agricultural land (BY 35501). He then set about actively exploiting the coal of the parish.

Clifford died in 1613, and his son in law John Cage sold most of the estate off in small parts, divorcing the manorial rights from much of the land. The manor was never again to be one united whole.

Samuel Parsons Map of Broseley of **c.1621**, must relate to the sale of Cliffords' lands by John Cage. Between 1613 and c. 1621 Cage had sold the manor in several parcels - Francis Langley in 1620-1 bought the lordship, William Porter bought the area known as Wilcox Farm and what had been the Priory Land, and Cage kept the valuable Calcutts estate and also other small parts of the estate.

Almost immediately Porter sold his lands. At Wilcoxes farm, John Weld bought 405a, William Whitmore land and Francis Adams 134 a. Whitmore's land included 57a which he sold to Weld by 1621 and Woodhouse Farm which he sold to Sir Edward Bromley in 1621. Porter had bought the Priory Land by 1620, but almost immediately sold John Weld the Priory House, Upper Farm and some waste near the boundary with Benthall. Francis Adams bought some 30 acres including Kyrehill House, and Francis Old bought Gitchfield and Priors Hawksyard to the east of the parish.

The situation in 1621 therefore, was that Clifford's estate was

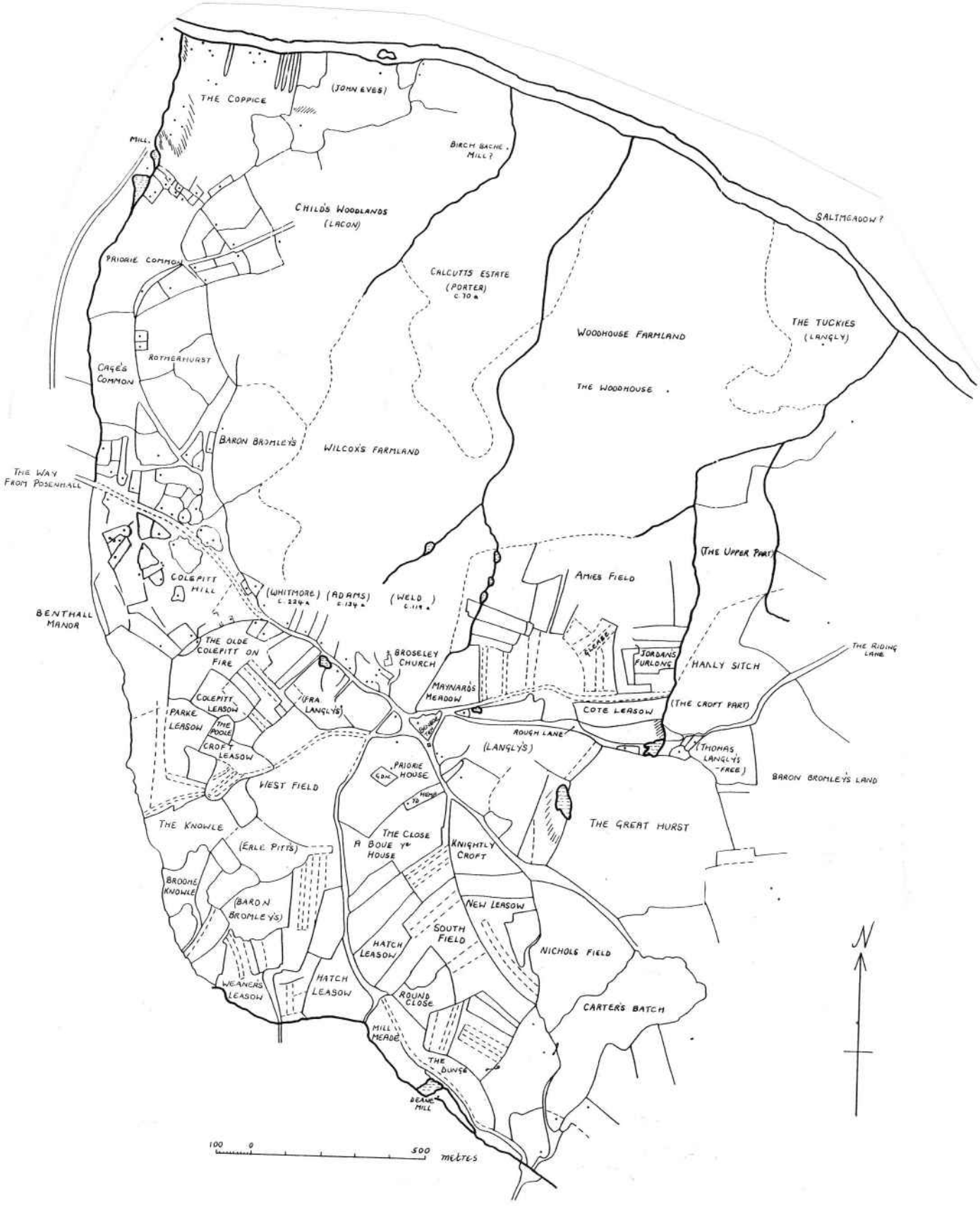


Figure 10: Broseley estates, c. 1621.

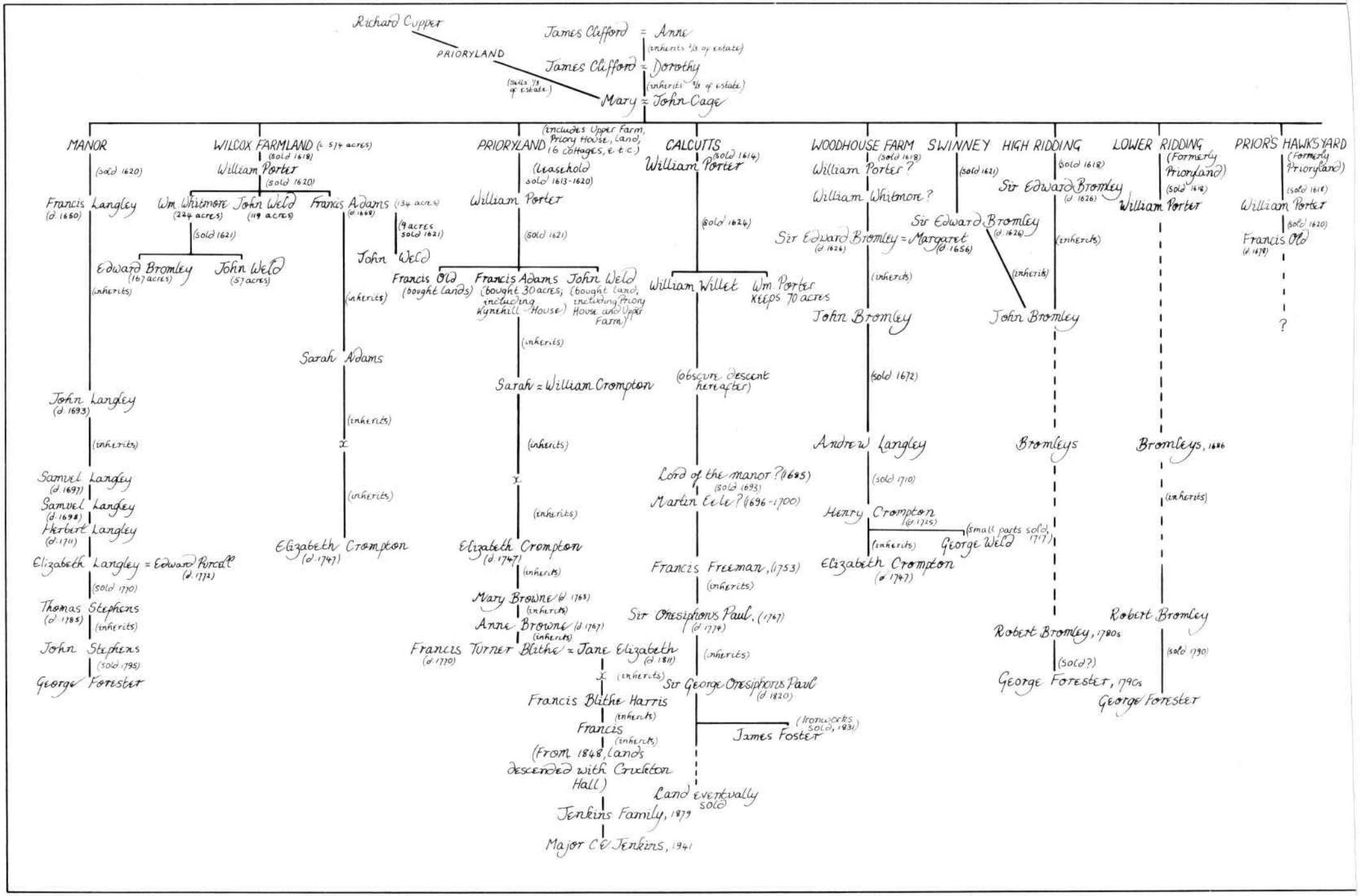
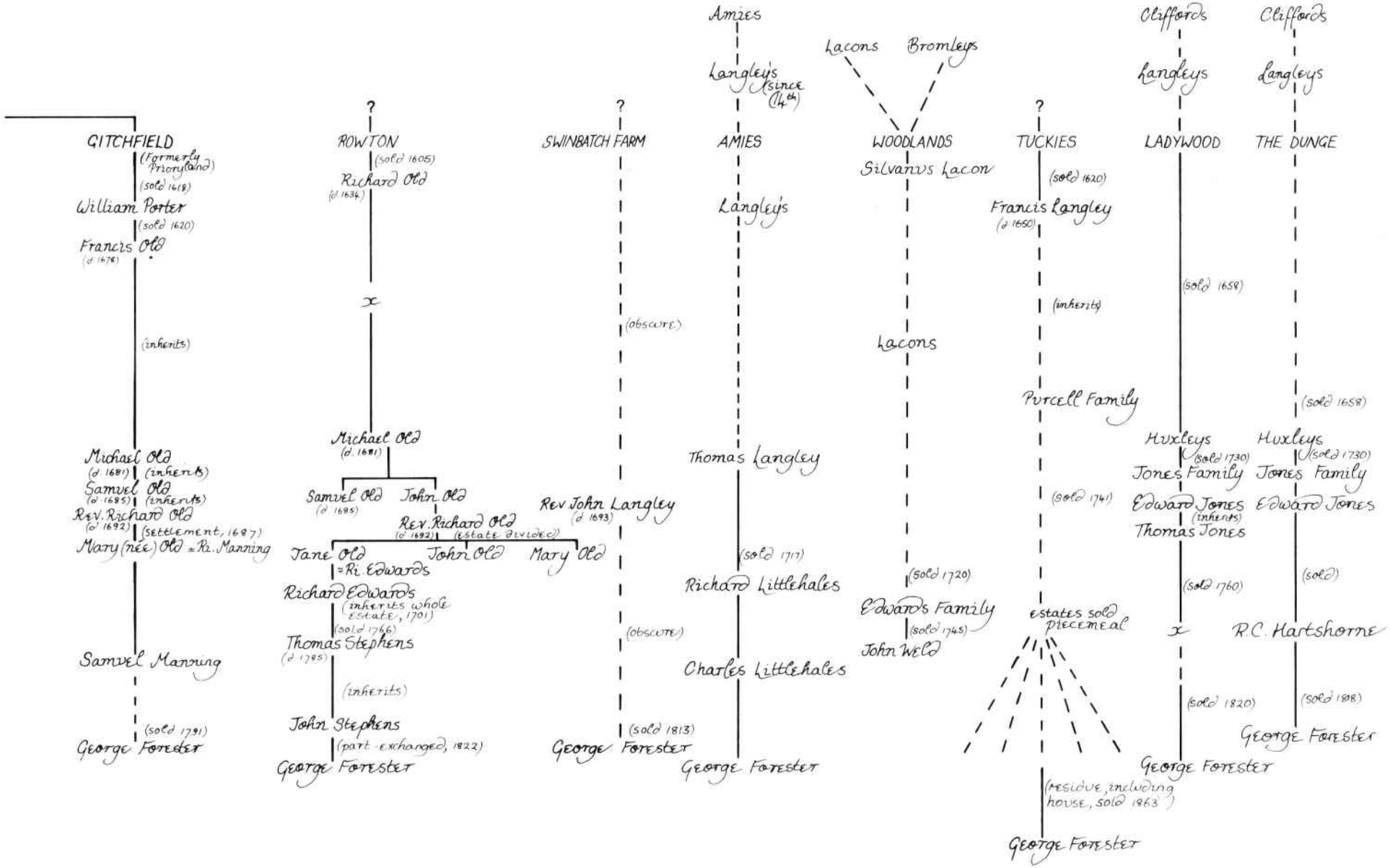


Figure 11: Ownership of Broseley estates. Based on VCH account.


GITCHFIELD
(Formerly Priorsland)
(sold 1618)
William Porter
(sold 1620)
Francis Old
(d 1678)
(inherits)
Michael Old
(d 1681)
(inherits)
Samuel Old
(d 1685)
(inherits)
Rev. Richard Old
(d 1692)
(settlement, 1687)
Mary (née) Old = Ri. Manning
Samuel Manning
(sold 1791)
George Forester
?
ROWTON
(sold 1605)
Richard Old
(d 1634)
x
Michael Old
(d 1681)
Samuel Old
(d 1685)
John Old
Rev. Richard Old
(d 1692)
(estate divided)
Jane Old
= Ri Edwards
John Old
Mary Old
Richard Edwards
(inherits whole estate, 1701)
(sold 1746)
Thomas Stephens
(d 1785)
(inherits)
John Stephens
(part exchanged, 1822)
George Forester
?
SWINBATCH FARM
(obscure)
Rev John Langley
(d 1693)
(obscure)
(sold 1813)
George Forester
Amies
Langley's (since 14th)
AMIES
Langley's
Thomas Langley
(sold 1717)
Richard Littlehales
Charles Littlehales
George Forester
Lacons
Bromleys
WOODLANDS
Silvanus Lacon
Lacons
(sold 1720)
Edward's Family
(sold 1745)
John Weld
?
TUCKIES
(sold 1620)
Francis Langley
(d 1650)
(inherits)
Purcell Family
(sold 1741)
estates sold piecemeal
(residue including house, sold 1863)
George Forester
Cliffords
Langleys
LADYWOOD
(sold 1658)
Huxleys
(sold 1730)
Jones Family
Edward Jones
(inherits)
Thomas Jones
(sold 1760)
x
(sold 1820)
George Forester
Cliffords
Langleys
THE DUNGE
(sold 1658)
Huxleys
(sold 1730)
Jones Family
Edward Jones
(sold)
R.C. Hartshorne
(sold 1898)
George Forester

completely dispersed; Weld was the largest landowner, Adams had land in Wilcoxes Farm, Sir Edward Bromley owned several large farms, and the Calcutts estate remained with John Cage. The purpose of Parson's map was likely to represent those parts of the Priory Land owned by Weld and Adams in the vicinity of Broseley, and it was probably made for John Weld.

Squatting (cottages "at will") had taken place on Colepitt Hill, and the adjacent common to the north, on Priory Common, in the Woodlands area (the future Broseley Wood), and in the Coppice by the river (Croppers Holes), all of which were mining areas. Wilcox's Farm was occupied by Richard Wilcox, Woodhouse farm was presumably separate, and there is evidence that the Calcutts was regarded as a distinct area.

2.52 The Manor of Broseley

By 1620, when it was bought from John Cage by Francis Langley, the manor of Broseley consisted of a few cottages in Broseley, the mineral rights to the parish, and certain rights over the commons. Very little land was attached to it. Francis Langley already held the Tuckies as a freehold estate, and leased some lands from Baron Bromley, whilst Thomas Langley of the same family held the large house at the Amies as tenant of Baron Bromley.

Although there were no great land holdings, there was a policy of encouraging (or allowing) settlement on manorial lands. The rent roll of Edward Purcell (m. Elizabeth Langley who inherited the manor) shows at least 90 cottages, presumably on the former commons of Coalpit Hill or Broseley Wood (quoted Randall 1879:60-64). Purcell sold the manor to Thomas Stephens in 1770. The mineral rights were sold to of the Madeley Wood Company in 1758, and the title to the manor was bought by the Foresters in 1795.

The importance of the manor lay in the potentially very valuable mineral rights, and the income derived from increasing settlement on commons. The manor never had the same degree of control over the whole of the parish as, for example, the Lilleshall Estate after the dissolution.

2.53 The Broseley Hall Estate

The other major estate in Broseley emerged in the 17th century after the sale of Cliffords lands, and key information about the estate comes from the Broseley Hall Estate map, made in **1728**, with additions (mainly relating to mining) in the 1760s. There are two folios, with slight differences, but a composite picture can be built up of the area.

The core of the estate was the 134a of Wilcox Farm bought by Francis Addams (d. 1668). To that was added the 30a of Priory land he bought from Porter (mainly lands in South Field). Francis Addams daughter Sarah, who inherited his lands, married William Crompton. In 1672 William Cromptons house was the largest in the parish, with 14 hearths. Their grandchild Elizabeth (d.1747) also inherited Woodhouse Farm. The map thus represents Addams lands, with the addition of Woodhouse Farm and the old Common Lands in West Feilde acquired some time after 1621.

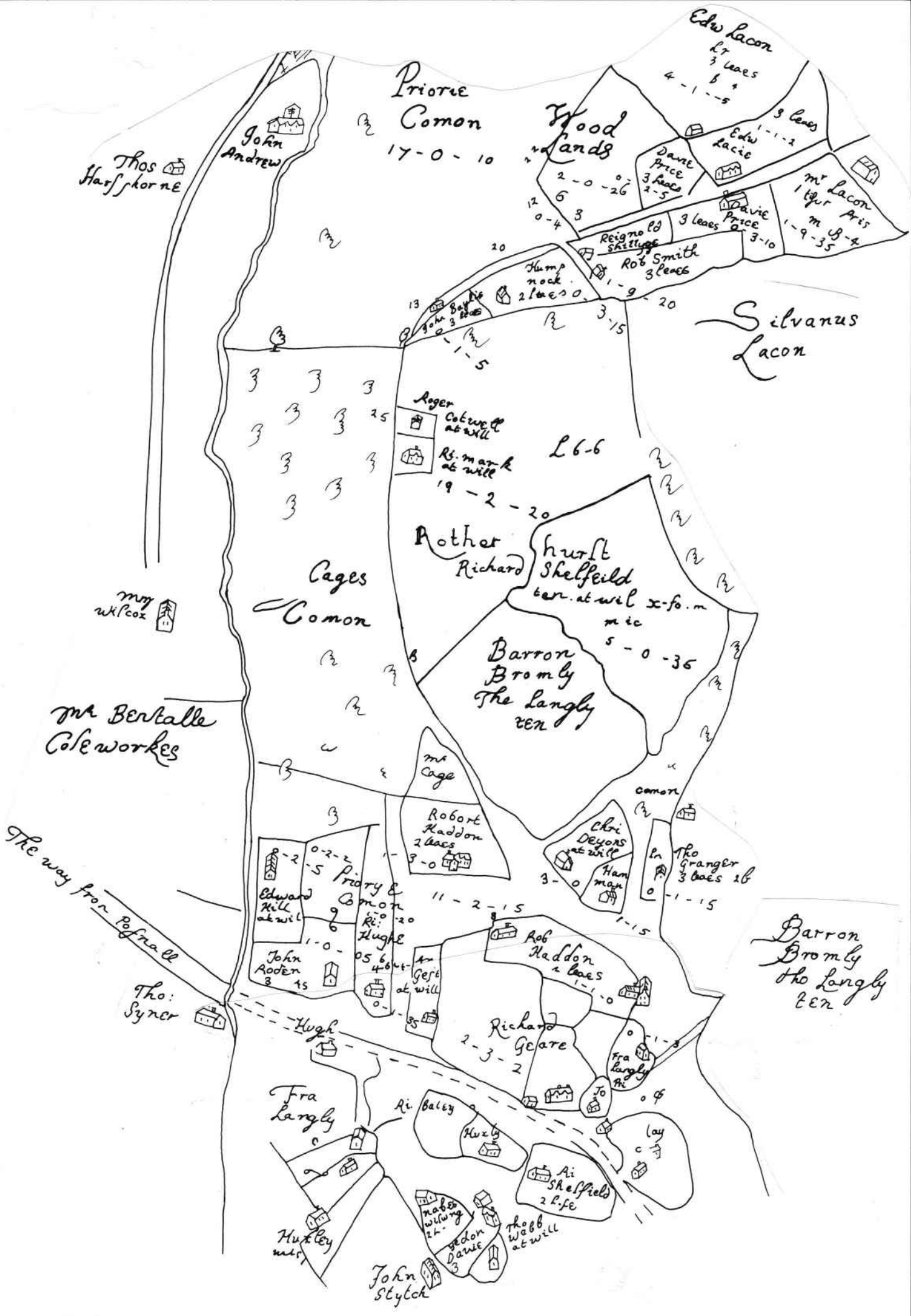


Figure 12: Part of Broseley Wood, showing common lands and settlement. Traced from **1621** at original scale.

Elizabeth bequeathed the estate to Mary, daughter of Ralph Browne of Caughley, and from the Brownes it passed to Francis Turner Blithe and eventually to Francis Blithe Harries, the only other substantial land owner in 1840.

Mining was a large element of the estate - probably developed by Francis Addams and the Cromptons. There are mines in Cornbatch Dingle, Woonhay, under Perry Furlong and Ox Pasture, south of Broseley in the Black Lands, by Rodens Meadow, in Palmers Yard and probably in the Coal Leasows. There is a network of railways and underground tramways, and by 1765 at least, considerable long wall mining.

2.54 The Woodlands Estate

The Woodlands Estate stretched north to the river from the area of Broseley Wood, to the west of the Calcutts Estate. It had been a freehold estate, and in 1594 was bought by Sylvanus Lacon whose family had owned it earlier. George Weld bought in in 1745. Presumably because it had originally been part of the Priory third of the manor, it continued to be administered by the Manor of the March until the 18th century.

The value in the estate lay in its providing an alternative route to the river for coal in from the Calcutts Pits. Valuable minerals also lay under the estate. Silvanus Lacon allowed Weld to mine under the estate, and Adam Cromptons, George Reynolds and Mr Williams' insetts are all dug from Lacon property. There are also substantial houses - presumably those of the mine operators - on the riverbank here.

2.55 Yates Coppice and Ladywood

The Huxleys bought land at Ladywood and Yates Coppice to the north of Broseley, as well as land at the Dunge (Knightlie Grounds) in 1658. The Huxleys, of Stanley Hall in Astley Abbots were strongly involved in the development of mining resources in Broseley parish (see Chapter Three). The estate remained separate, but much of it was broken up, and purchased by the barge owner Owen in the early 1730s (see material in SRO Tyrwhitt-Jones Collection). It was bought by the Foresters in 1820.

2.56 Forester/Weld acquisitions

John Weld of Willey acquired land from Cliffords estate, but by 1630 still had not got a vital way to the Severn. The Foresters (Weld's successors) bought the title to the manor in 1795, and added to their already extensive purchases all the large estates to the east of the parish, leaving by 1838 only the Calcutts estate (which John Weld had so wanted) and the remains of the Broseley Hall estate not in Forester ownership. At that date the only areas owned by small landowners were groups of houses by the Ironbridge, land and houses at the Tuckies and in Broseley itself.

2.6 The Jackfield Estates

2.61 Woodhouse Farm

The settlement of Jackfield was part of Woodhouse Farm. This was itself part of Wilcoxes Farm, sold by Cliffords heir Cage to Whitmore, and bought in 1621 by Sir Edward Bromley. The long term tenant Andrew

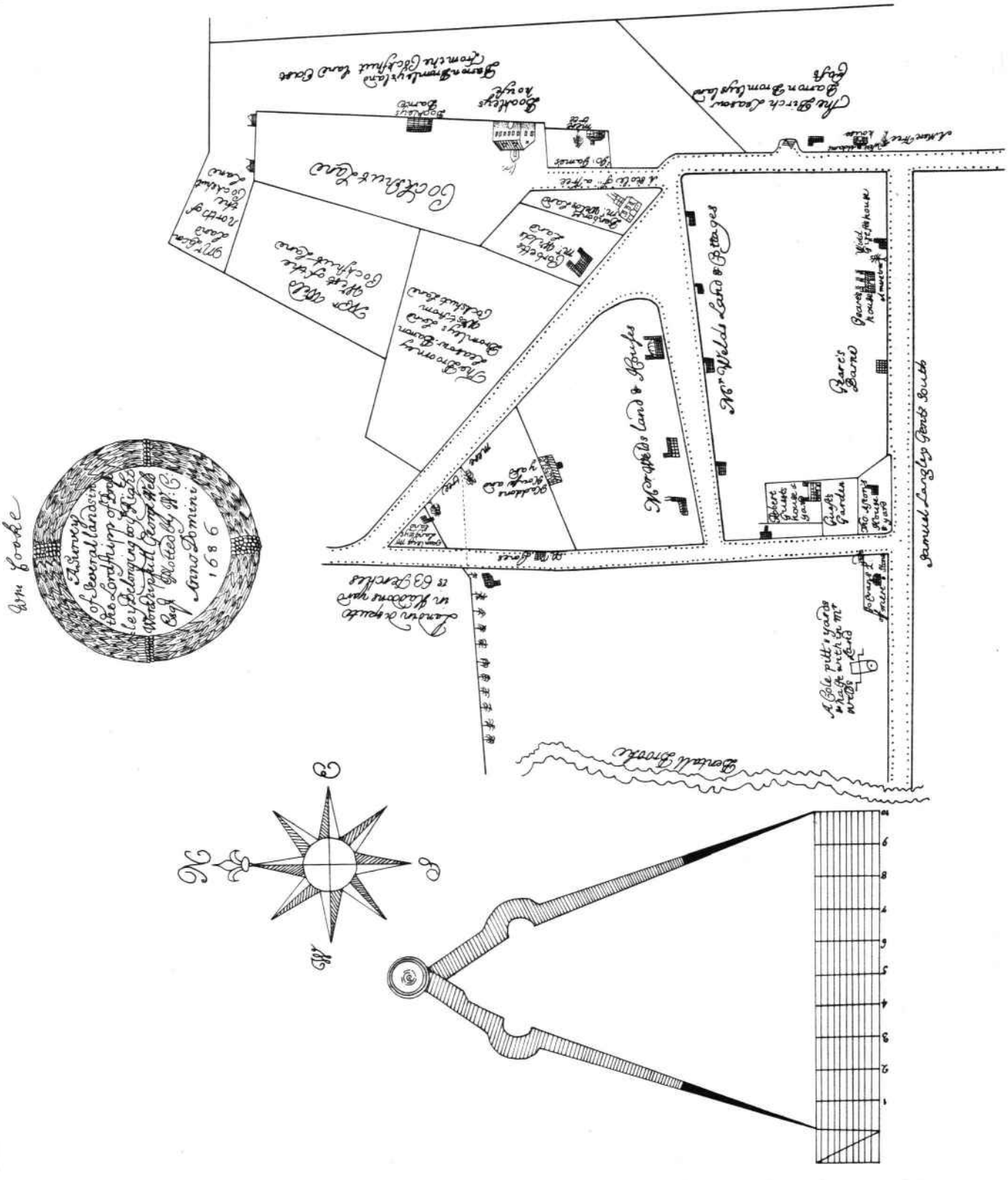


Figure 13: "A survey of several lands in the Lordshipp of Broseley belinging to the Right Worshipfull George Weld Esq. Plotted by W.C. Anno Domini 1686." (tracing). SRO 1224/1/34.

Langley bought it in 1672. Henry Crompton of Stone Park Staffordshire bought it in 1710, and it was inherited by Elizabeth Crompton. Whatever Henry's involvement, this was a shrewd move, as it ended the dependency of the Cromptons on the Calcutts estate for a way to the river for their coals, and allowed the estate to add valuable coal mines and railways to their holdings.

The estate was inherited by the Brownes of Caughley in 1747. Their involvement in the development of pottery industries at Caughley, and later at Benthall is well known, and no doubt they influenced the location of potteries there, although Maurice Thursfields pottery of 1728 clearly predates the involvement of the Brownes.

The boundary between the Broseley Hall Estate and the Calcutts passed through the centre of the Calcutts Ironworking site, and even through one of the buildings.

2.62 Calcutts

The most jealously guarded and valuable estate in Broseley was the Calcutts Estate. John Weld wanted it very much in 1620, the charges on its mines were used to prop up the value of other pieces of land, and ironically, it remained out of the hands of the major landowners. The extent of the Calcutts estate can be reconstructed from the Tithe Map of 1840, when it still remained in separate ownership (although the boundary was shown in **1728**). It covers the low lying valley between Birch Batch and the Calcutts stream, stretching from the river bank south for just under a mile. The present road to the Free Bridge cuts across the estate.

Ownership passed from Clifford through Cage to Porter, his cousin William Willett, but the lease was assigned to John Huxley in 1659. Around 1696 Martin Eele was in possession of the estate. In 1753 it was owned by Francis Freeman of Bristol, and thereafter his descendants the Pauls, who still held it in 1840, after which the property was dispersed by sale (VCH). James Foster bought the lease for £1300 in 1831 (Jones mss).

The Calcutts Estate possessed the combination of waterpower (height plus stream), minerals, flat land and access to the River Severn which had been central to the development of Coalbrookdale and to a lesser extent Benthall. The Calcott Pit does not seem to have actually been on the estate (**1676**). There is no major farmhouse on the land, and at least by 1840 most of the fields are described as spoil banks or roughs.

2.63 The Tuckies Estate

Possibly once part of the Amies, the Tuckies was held by the Langley Family, including Francis Langley who bought the manor in 1630. The estate was gradually broken up from 1741 and Lord Forester bought the house and estate in 1863 from Mr Taylor who owned the brickworks (VCH, Randall 1879:88). Maws also purchased part of the estate, and the house is now in three different ownerships. The house was occupied by Earl Dundonald, and by William Reynolds until 1803.

The Tuckies house is complex. A timber framed north end may have originally abutted an earlier structure to the south. In the mid to late 17th century, the south end was rebuilt in sandstone and brick as

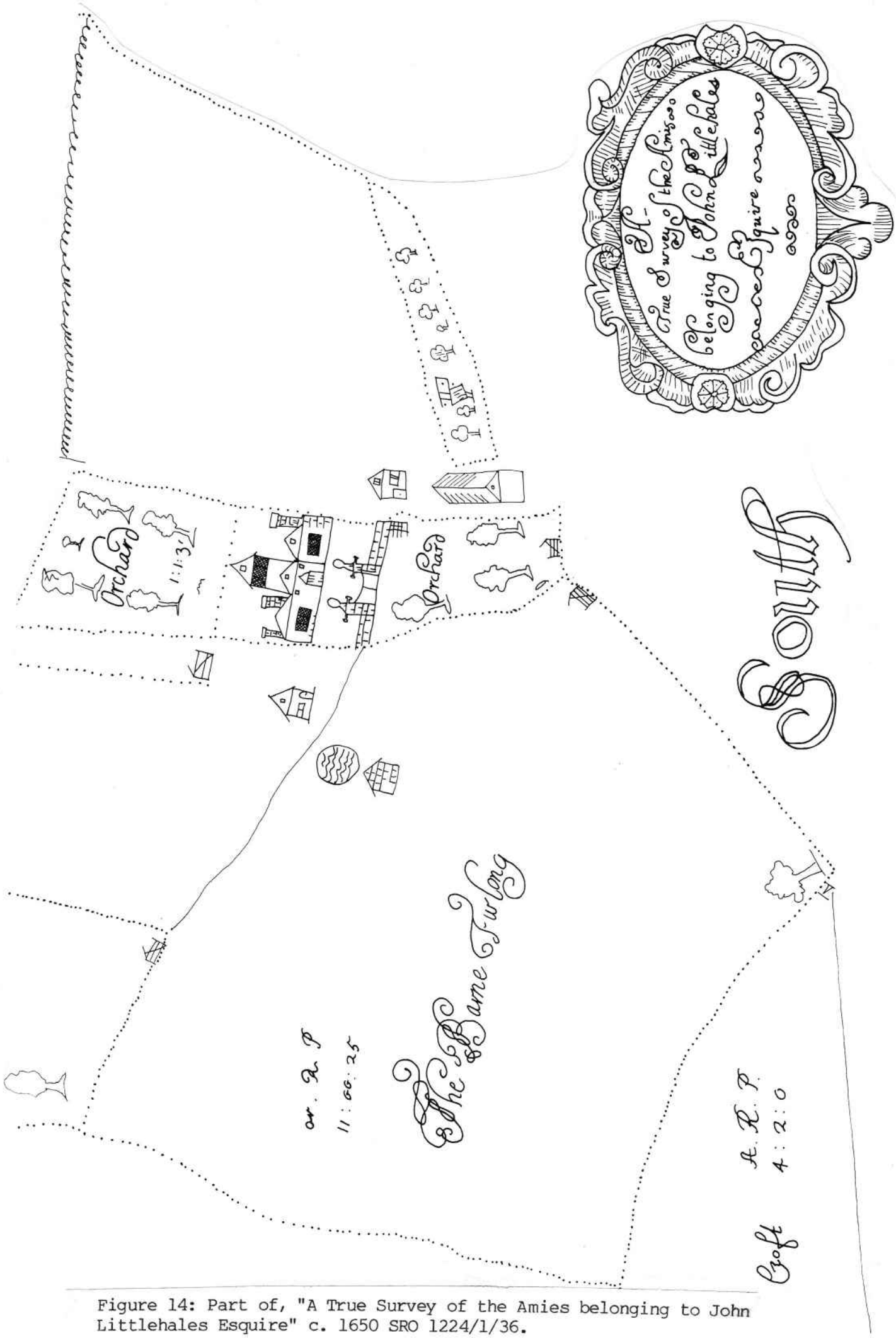


Figure 14: Part of, "A True Survey of the Amies belonging to John Littlehales Esquire" c. 1650 SRO 1224/1/36.

a substantial villa with a two storey loggia facing over the river. The structure has few parallels in Britain, and makes reference to Italian villas of the period (Drury pers comm). It may well have been rebuilt by the Langleys as Lords of the manor, given that the manor had no suitably large property attached to it (BY 50301).

The area of the estate is probably that seen in 1840 on the riverbank northeast of Woodhouse Farm. Its resources included a stream, stone quarries, and mines of coal and clay whose exploitation dated back to Clifford in 1575. The estate is much closer to Coalport than to Broseley, and the 19th century pattern whereby many Coalport workers lived in the area may very likely have occurred at earlier dates. By 1840 much of the land had been bought by William Taylor, the brickmaker, who also operated the coal and clay mines.

2.64 The role of the Estates in the Settlement of the Riverside

The settlement of Jackfield was part of the Broseley Hall estate by **1728.** The field itself lay in the Woodhouse Farm. The Salthouses too was on the Broseley Hall estate by 1728, shown as a small group of houses clustered around a branch railway line on the river bank.

The settlement at the Werps was on the Tuckies estate. By 1840 it was one of the few areas of private ownership in the parish, a situation which may date to the break up of the estate c. 1721.

Coalford was part of the Calcutts estate, as was the area of settlement by the river which came to be known as the Calcutts. This estate was broken up after 1838, and private ownership of houses presumably dates to this period. To the west, the area around the Dog & Duck lay on the Lacon's Woodlands estate, which was bought by Weld in 1745. No houses survive here.

The settlement by the Iron Bridge was in existence by **1621**, but was considerably developed by the Huxleys in the 18th century. The ownership of the Ladywood estate passed to George Forester, in 1820 but by 1838 there were a group of houses in individual ownership.

To some extent the individual clusters of settlement reflect the estate boundaries. But their location was as much affected by the junction of particular transport routes with the river such as the road down Bridge Bank or the Jackfield Rails, or the location of suitable wharf areas. These settlement also developed individual industrial characters by the 19th century (e.g. China painters at Salthouses) which may have contributed to keeping them as separate entities (McKelvey 1985).

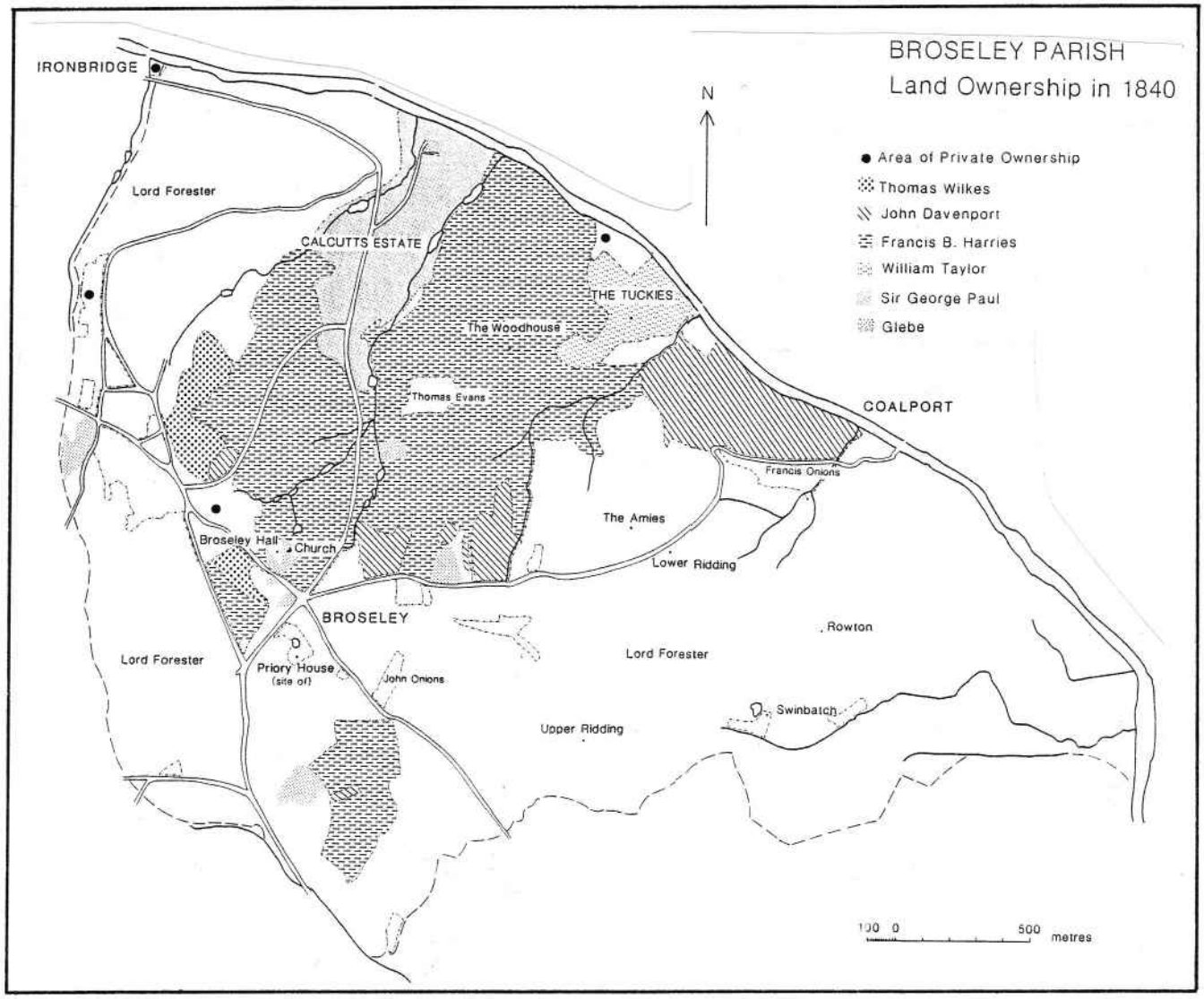


Figure 15: Broseley Parish - landownership in 1840, based on Tithe Apportionment Map.

A Description of ye Widdow Cromptons Insetts in Brosley taken Dec 6th 1675

R H. 1730

The Ascents & Descents above Ground

Perpendicular

The Ascents & Descents on ye Inset Horizontal Line

A Scale of Perches

A MAP of those Lands Brosley through which the Sev Insetts do Pass taken Anno Dom 1676

RH 1730

The yellow Sketch to which party Lands & Hedge belongs & y Red is the Brook

A Scale of Chains or Perches

Figure 16: "A Description of Widdow Comptons Insetts in Brosley taken Dec 6th 1675, R.H. 1730".

"A Map of those lands in Broseley through which the Several Insetts do pass, taken Anno Dom 1676, R.H. 1730"

CHAPTER THREE: THE COAL INDUSTRY

3.1 Introduction

The mining and export of coal dominated the economy of Broseley throughout the 17th century. The collieries were of such importance that they were seized during the Civil war in order to prevent coal from travelling down the Severn to the Royalists forces. In 1758, the collieries of Madeley and Broseley had an output of 100,000 tons per annum, although by 1765 individual mines in Broseley began to be exhausted.

The responsibility for the early development of coal mining lay with landowners such as Weld and Clifford, who initiated mines, provided timber and established a transport network to move the bulky raw material down to the river side. This transport network included some of the earliest wooden railways in Britain, and access to the River Severn was a continuous source of contention amongst landowners. By the 1670s a group of non-landowning miners - some described as Charter Masters - were well established, some employing other labourers to actually undertake the work. Through the 18th century there was more involvement in mining by companies, often using the coal for their own purposes (ironworking, brick-making) rather than as a large scale export industry. By the nineteenth century, coal-mining was almost exclusively an adjunct to other industrial activities.

The decline of the Broseley coal industry from its status as a nationally important industry in the 17th and early 18th centuries, to one which mainly supplied local industry, has often been ascribed to exhaustion of seams. Yet mining continued into the twentieth century. The issue of exhaustion has to be considered in the light of the different types of coal available, and the different mining techniques, as well as the physical supply of coal. It may be that other factors such as increasing distance from the river, or the access of Staffordshire coal to the River Severn (Nef 1932) may also have been factors.

The physical geography of the parish is a vital element in the seventeenth century industry. Not only were valuable coal measures present, but they outcropped adjacent to the River Severn, and thus transport to markets. In a period when adits were a more popular mining technique than deep pits, and when overland transport could add much to the cost of getting coal, the combination had an important effect upon the location early working.

3.2 Geology

Broseley Parish sits directly over productive coal measures, but unlike Benthall, relatively little coal outcrops on the surface. Coal is reached either through adits in from short exposures on the river bank, or from deep pits, often on the slopes of the Gorge some distance above (and away from) the river. Thus, although Broseley had more coal than Benthall, the expense and techniques of getting it were very different.

To the west of the Jackfield Fault, which runs down to the river by the Summer House, coal measures outcrop on the slopes of the Gorge in the Ladywood area - the Best, Randle and Clod coals, and the Ganey coals are the most important measures. It is only in this area that

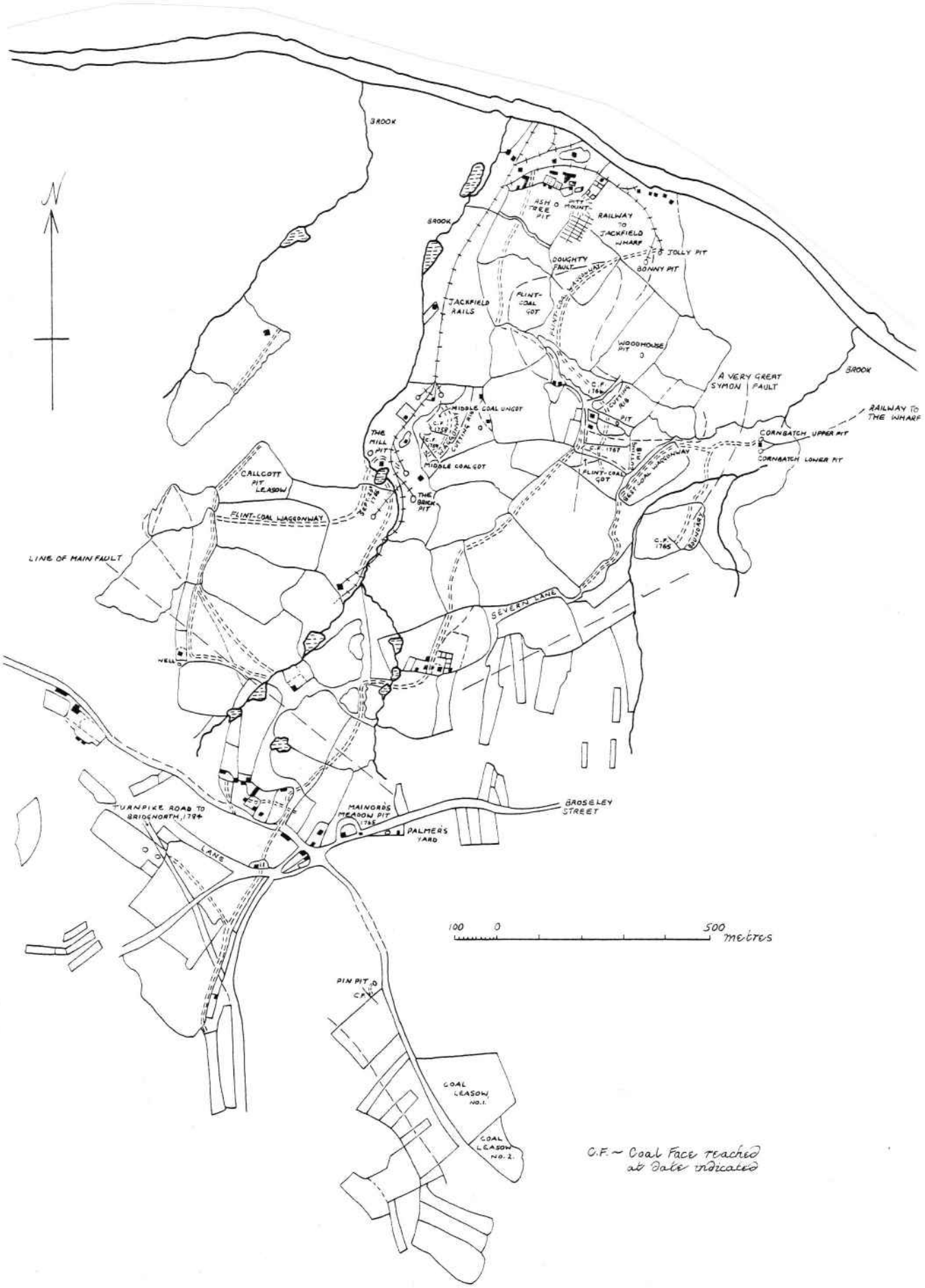


Figure 20: Coal mining evidence as shown on Broseley Hall Estate Map, c.1728/1760s, redrawn at 6"/mile.

coal and can be got through level adits, driven into the hillside, and transported directly by river. Almost all the documented adits are likely to begin in this area.

The Jackfield Fault has upthrown the measures to the east, in the area of Jackfield itself, so that on the surface are found the Hadley and Coalport formations of the Upper Coal Measures. The only coal to outcrop is the Sulphur Coal,with a few measures by the riverside. Rotational slipping occurs over the whole Jackfield riverbank, from Doughty's Brick and Tile works eastwards, and some distance up the slopes of the Gorge, making it difficult to reconstruct early pits and geology.

Over most of the rest of the parish, the Lower and Middle Coal Measures are to be found, but are only accessible through shafts. Just north of Broseley, the Broseley Fault has upthrown measures to the south, and Broseley itself is sitting on the Lower Coal Measures, which outcrop to the west in the Benthall Valley, and to the south at Hockley bank. Coal outcrops in the cellar of the "Pheasant" and probably elsewhere in the town.

3.21 The Coal Seams and the pattern of demand

Broseley coal was primarily exported down the Severn in the 17th century. Some was used locally for domestic purposes (Clifford took coals for his fire, Weld suggested his cottagers use it instead of his wood), or for limeburning, but until the 18th century there were very few local coal using industries. This is confirmed by the anxiety of Clifford, Wilcox and Weld to convey coals to the river. The extent of the non-domestic local market in the 17th century is less obvious. Randall suggests that 1 ton of coal was needed to burn 24 clay pipes (VCHi), Martin Eele was using coal to produce tar, and there is a little evidence for limestone burning in the parish.

Through time, the coal industry has had to cater for a variety of markets, each requiring different properties from the coal they consumed. Colliers have always been aware of differences in types of coal. Work at Benthall showed that early mining tends to take place at coal outcrops, and in particular, the Best, Randle and Clod as well as Ganey coals of the Lower Coal Measures. This can be supported in Broseley where the adits in the Ladywood, Yates Coppice and Woodlands Estate areas followed these seams. Thus there was some element of selectivity in operation from an early date.

The distinction between the properties of "sweet" and "stinking" coals had long been recognised by medieval smiths. All but the Sulphur Coals would be suitable for this. At Willey, John Weld noted that there were, "3 coals discovered in Willey Park, first Mr Benthalls deep coal of a yard thick, then an upper coal of 6 quarters thick, and then flint coal of a yard thick. There is a coal under Mr Benthalls coal, but not hard nor worth the getting " (Weld 1630). From the geological map (GS SJ60SE), these can be interpreted as the Little Flint Coal (Mr Benthalls deep coal), the Best, Randle and Clod seams (Upper Coal) and the Clod coal (Flint Coal). The coal underneath may well be the very deep Lancashire Ladies coal.

Coal from Yates Coppice fetched 1s per ton in 1686, and the bottom coal from Calcutts the same price in 1659 but all other coals from Calcotts however, only fetched 6d. By 1673 agreements mention the Best

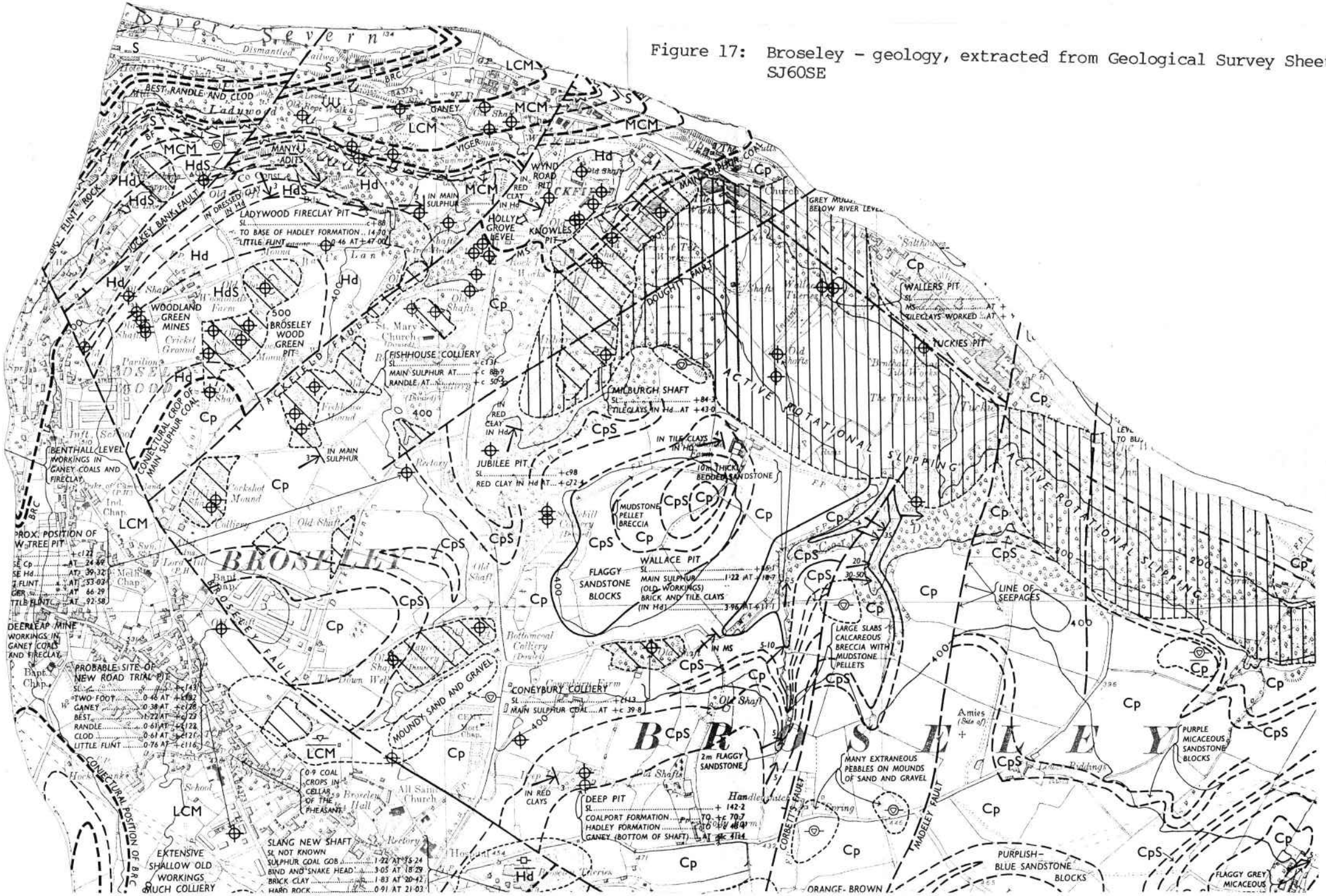


Figure 17: Broseley - geology, extracted from Geological Survey Sheet SJ60SE

coal, Flint coal, Little coal, Top coal and Bottom coal seams from Calcotts and Peartree Croft (Tyrwhitt-Jones 43.47).

From the beginning of the 18th century the local demand for coal for ironmaking increased steadily, with a very substantial rise in the second half of the 18th century. It has long been recognised that the only local coal suitable for smelting was the Clod Coal (Prestwich 1840). Abraham Darby's success in ironmaking has always been attributed to the low sulphur content of local coal (Tylecote 1976), but all the local coals, with the exception of the Main Sulphur coal, are relatively low in sulphur and could be used.

However, there was another factor. All the local ores contained phosphorous which produced an iron unsuitable for forging. Development of the iron industry in the Gorge in the early 18th century was hampered by this factor, yet Abraham Darby II was able to produce a more suitable iron. It seems that Clod coal has less phosphorous than other coals, and by selecting Clod Coal, he was able to reduce the phosphorous content in the iron (Mott 1957). This may be one factor in explaining the universal use of Clod coal in ironmaking in the late 18th century.

It may have been possible with higher smelting temperatures to use a greater range of locally available coal. Tylecote (1976:107) has suggested that between 1770 and 1800 Wilkinson succeeded in driving some sulphur out of his iron, with a higher blowing rate. But even after the development of hot blast in 1828, sulphur contents of over 1% were not desirable (Mott 1957:65). However, other grades of coal could be used for roasting ore, or in driving steam engines.

By the mid 19th century, a wider range of coals were in use, perhaps explaining the revived fortunes of the Broseley coal industry,

"The top, Double, Yard and Big Flint" coals are good for manufacturing purposes. Occasionally some are coked and used in the furnaces, but the furnace managers, who are often more nice than wise, would rather do without them so long as they can get the famous Clod coal and the Little Flint.... Coals which were condemned to all intents and purposes twenty, yea ten years ago are now being applied successfully " (Parton 1865:4).

3.3 Coal Mining to 1700

Nef (1932) has asserted that the Dissolution had a major effect on the expansion of the British coal industry, suggesting that monastic practises restricted development. Certainly, before the activities of James Clifford in 1608, little mining is documented. John Hadyngton and John Horsley rented a mine from the Lord of the Manor in 1417-8, later joined by Adam Colyer and the same mine may have supplied 50 clods of coal to the Lord's household. Wenlock priory was involved in mining in its lands in Broseley from at least the sixteenth century, as there were Priory coal pits in 1514, as well as a "Coal Meadow" near the High Riddings - a name associated with spoil from colliery activities (Lewis 1974). There is evidence for bell pits due south of Hockley Bank in Broseley (1:10,000 AP coverage), and a strong possibility of early bell pits on Coal Pitt Hill and in the area later known as Black Lands.

3.31 Yates Coppice and Ladywood Insetts

In **1621** there were four insetts marked, leading north from the river in what is probably Yates' Coppice. Two insetts belong to Mr Cage, and one known as Priory Insett just under a piece of land occupied by John Eves, and probably then owned by John Weld, and one is unmarked. William Hobson and William Adams had a pit in 1545 on Priory land, and in 1615 the "Priory Insett" yielded £40 pa. It is possible that this is the same Priory Insett as shown in 1621 (VCH). However, the insetts of 1620 were on land formerly owned by James Clifford, who in 1608 leased to Jesse Whittingham, the right to all coals and ironstone,

"digged within ffower insetts or pitts allreadie begunne by the saied James Clifford" (quoted Lewis 1974:99).

Cage had inherited Clifford's estate through this wife, and although much of the estate had been sold by 1621, he retained possession of several scattered pieces of land in the parish, one of which was marked as ".... Coppice". The map probably shows short railways, leading from the riverside to the outcrop of Best Randle and Clod coal, roughly where the mouth of the insetts would have been (BY 02102).

The Yates Coppice mines continued in operation throughout the seventeenth century, leased by William Pacie in 1632, Henry Langley in 1650 and Sampson Crompton in 1686 (deeds quoted in Lewis 1974). The land was owned by the Huxleys of Astley Abbots, who reserved mineral rights in the early 18th century (SRO 1224/3/727-9). In the late 18th century the area was developed for ironworking, ironstone mining and a pottery (SRO Tyrwhitt-Jones).

Ladiewood, in 1620, was a separate piece of land to the east of Yates Coppice, but by 1769 the names had become interchangeable (SRO 1224/3/748).

3.32 Woodlands

The Lacons were mining under their freehold estate at the Woodlands in 1583. The estate ran down to the river between Ladiewood and Calcutts, and the adits probably began by the river. The lease of two insetts was renewed by James Lacon in 1631, who himself occupied a third.

Silvanus Lacon allowed Weld to "have all the measures of coals that I can get by insetts in his land", and James Lacon asked that "he might have liberty to get them by pits in his ground, providing they could not be got by insetts and that it might prejudice him if I should hinder him to get them for 50 years and yet not be able to get them himself".

Lawrence Benthall was given permission by Weld to run an adit under the Woodlands from Benthall in 1634, but this would have originated to the east, in the Benthall valley, and in the same area, Weld mentions the possibility of coals under Rotherhurst and Priory Common suggesting that they have no yet been dug (Weld 1630).

3.33 Tuckies Pit

In 1575, James Clifford was dumping spoil into the river from a pit

near the Tuckies. Although there is a so-called Tuckies pit behind Maws (GS SJ60SE) the location is more likely the two pits in Corbetts Dingle known from the Broseley Hall Estate Book of 1728 (BY 54202,3).

3.34 Calcutts Pit and Adits

The focus of much mining and litigation in 17th Broseley was an area known as the Calcutts.

"Calcutts, the great pasture ground where the coal mines are", seems to refer not to the small riverside area currently known as the Calcutts, but to the larger area of the Calcutts estate, running south from the river, perhaps up to the north of Broseley, underwhich ran numerous "footrids, insetts or adits, gateways and waggonways". One copy of the Broseley Hall estate map refers to Calcott Hill (the other says Pitt) Leasow which may be the origin of the name.

In **1676** a Calcotts Pitt lay about a mile south of the river on Calcott Hill (above, BY 20301)). By this date it was connected with at least one of a group of adits leading from the river into the hillside, just to the west of the present Free Bridge (SRO 3703/10). The Calcutts pit must have been at least 53m deep in order to reach the uppermost seam, the Big Flint coal, and deeper to other coal seams (GS SJ60SE).

Calcutts Pasture seems to have been part of Wilcoxes Farm, and area leased by James Clifford to Richard Wilcox in 1588. Clifford agreed with Wilcox that he might dig pits for coal, erect houses and make an engine for "the better getting thereof" paying compensation to Wilcox for the land spoiled. In the ensuing debate over the amount of compensation due to Wilcox, Clifford gave Wilcox in exchange the right to dig pits and erect houses on Coalpit Hill. Wilcox was not happy with the arrangement, and with William Wells and a riotous company took possession of the pits, the cottages and the engine (STAC 8).

The value of the Calcutts mines was such that William Porter, who bought and subsequently sold much land from John Cage, reserved the Calcutts estate. In 1613, he claimed that each acre of coals were worth £600 pa, with a potential profit of £300 once charges had been made. Despite this, the capital investment on such mines was high, as in 1622, John Weld suggested that £1000 had been spent on Calcutts mines, for a profit of £100 pa or less (VCH draft:7).

Whatever the problems, the adits were highly profitable by the late seventeenth century, producing 116 tons of coal per month in 1681-2. In 1679 there were four adits - Mr Williams, George Reynolds, and two others probably worked by Adam Crompton. Mr Williams insett seems to have run from the river straight into the Ganey coals, and links up with the Calcotts pit. George Reynolds' insett to the west, probably followed one of the Best Randle and Clod coal seams (SRO 3703/10,BY 03207).

Adam Cromptons insett and the other unnamed insett further west may follow another seam within the same group, as they appears to cross Reynolds insett, possibly lower down. Adam Cromptons widdow, Sarah - who owned both insetts in 1676 or 1730 - was the daughter of Francis Adams, who had bought land in Wilcox's farm from Porter, and was mining elsewhere in the parish. Adam Cromptons house had 14 hearths and had been built in 1654 (Hearth Tax 1672,Randall 1879).

One of these adits may have been the Hollygrove adit, to which Francis Huxley authorised another branch in 1674 (Lewis 1974). Thomas Potts was master collier at the Holly Greaves, "a parcel of land joining the River Severn and Chilkuns Brook and to the footway above the house" (SRO 1224/3/514). The land was part of the estate of Samuel Edwards in 1730 and sold to Weld in 1743 (SRO 1224).

Included in this group of mines, if only through the litigation of the early 1600s, are Wilcox's mines at Birchleasowes. The field is just to the south of the Broseley Fault (SRO 6703/10) and thus the mines were probably shallow bell pits with no other access to the river (BY 220, 219).

3.35 Coalpit Hill, Broseley

Coalpit Hill, to the north east of Broseley, was part of the commons of the manor. The name dates to at least 1608, implying earlier mining there. In 1620, Francis Adams was there, sending his coal via his lands and over the Calcutts to the Severn (VCH). In **1621** Coalpit Hill still belonged to John Cage, but Adams owned part of Wilcox Farm, and could easily have reached the Severn via his land and the Calcutts. Weld had, "bargained with Mr Huxley for the coals in Coalpits Hill" in 1630 (SRO 1224).

The Best Randle and Clod coals outcrop along the south western margin of the parish in this area, and it is likely that there was considerable early mining here. Several field names in **1621** suggest mining - Erle Pitts, Coal Pit Leasow, the Old Coal Pit on Fire, and of course Coalpit Hill itself. The most likely form of mining is shallow bell pits, as the coals are within a few metres of the surface.

3.4 The Coal Miners

Landowners such as Clifford, Weld and the Lacons were clearly investing in new mines from the late 17th century, however, there emerged a group of miners and master colliers, who over the early years of the 18th century were to play a greater role in developing mining. Probate inventories reflect the different levels of success, of 15 colliers inventories, 5 are under £10, 7 from £10 to £35 and there are 3 others at £59, £100 and £318 respectively.

John Huxley, of Stanley Hall in Astley Abbots, owned little land in the parish, but was very active in developing mines. He was the clerk to Cliffords Coleworks in 1608, bailiff to William Porter, and Steward of the Manor of the Marsh for Weld and Steward to Francis Langley (VCH draft). In 1620 Huxley occupied Mr Cage's insetts at Ladywood, seems to have lived in Cliffords old house, Priory House, and occupied lands in Nichols Feilde, Carters Batch and around Priory House. He could well have been mining either Nichols Feilde or Carters Batch, where the Main Sulphur Coal outcrops (SRO 1224.1.34). In 1659 the family acquired the leasehold of the Calcutts mines, and were still working them in 1685. John Huxley, gentleman was worth £347 in 1671, with some £100 ready money about him, and leases on certain lands and tenements worth £100 (Trinder & Cox, forthcoming). The Huxleys held land at Ladiewood - possibly the plot occupied by Eves by the riverside in 1620 - and mortgaged land from the Lacons there in 1630 (Weld 1630). The estate was later developed for ironstone mining, pottery and brickworks.

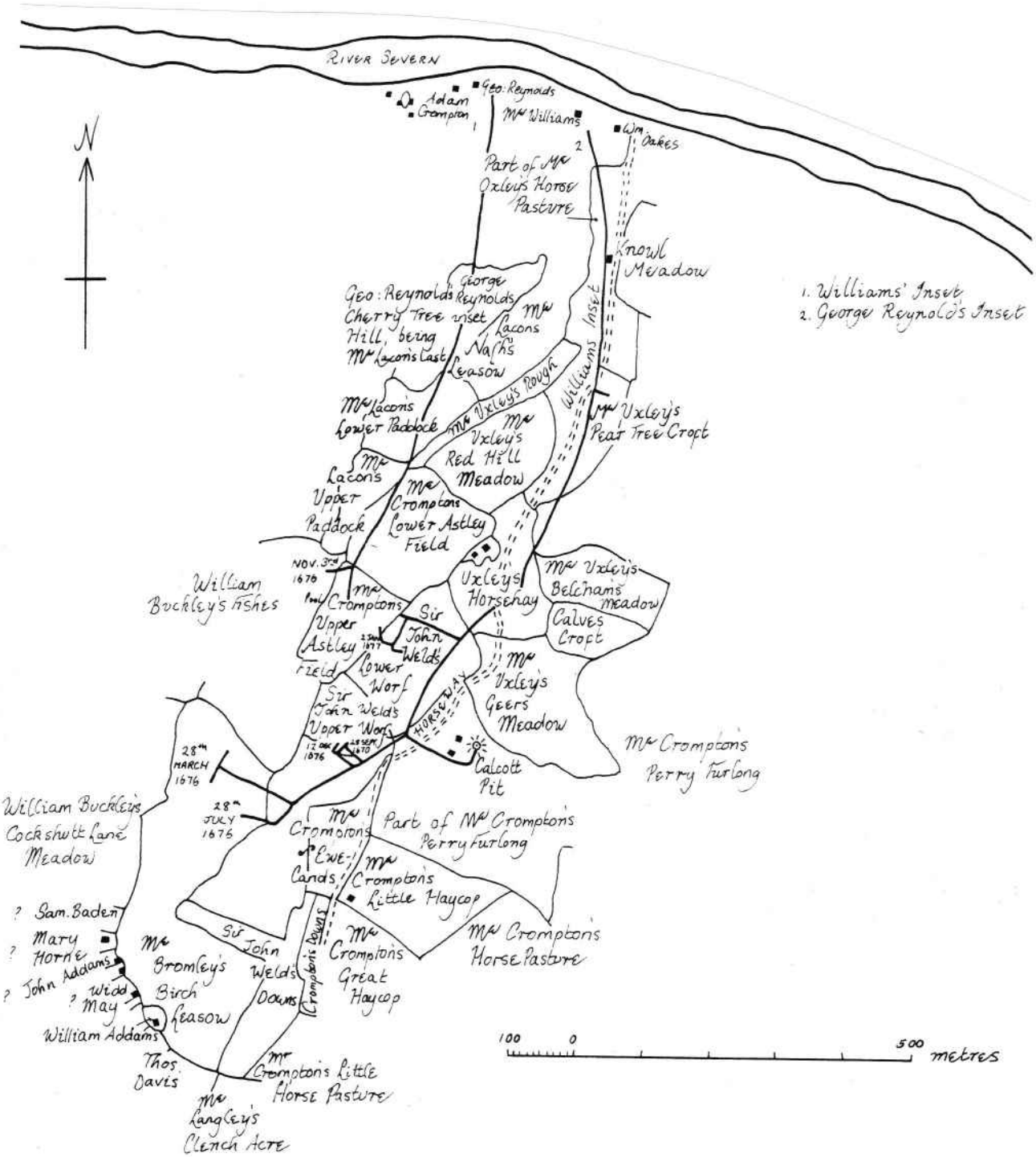


Figure 18: Map of Broseley Insetts (see Fig. 16) redrawn at 6"/mile.

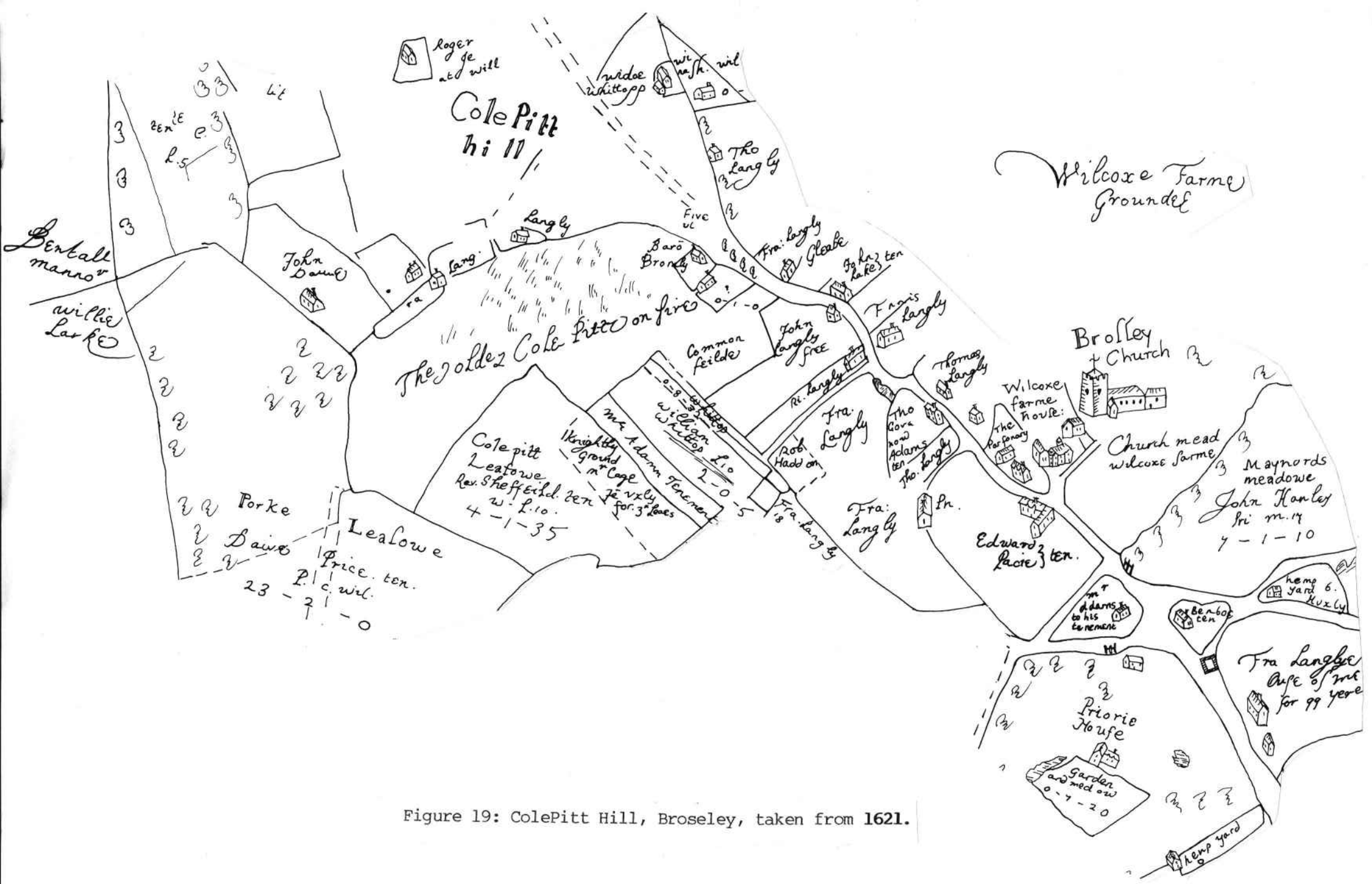


Figure 19: ColePitt Hill, Broseley, taken from **1621.**

Although the term Master Collier is rarely used in Broseley, there were clearly a group of such people operating mines for landowners. Jesse Whittingham dug coal in mines already begun by Clifford in 1608, Edward and subsequently William Pacie occupied insetts at Ladywood, and in 1692 there is mention of Thomas Potts of Holly Greaves, master collier (1224/3/514), and Mr Williams, George Reynolds and Adam Crompton operate insets in 1676. The Crompton family were instrumental in mining on the lands acquired by Adams. Sampson, Adam and William Crompton are all active in the 17th century. Weld's memorandum makes great mention of Parry, who gives advice to him on the location of coals, and seems to rent a pit near Severn Side.

3.6 Coal Mining Methods

Weld recognised importance of improving pits "I have improved it (the Manor of the Marsh) by the coal delphs which were worth but £15 per an and now I hope will be worth £50 for ever by means of my suph". Mine drainage was less a problem in adits than in deep pit mining. Jesse Whittingham, leased all the "waies, water courses and railes" from the four insetts in Yates Coppice in 1608, and occasionally other mines were of use - "the pits by John Wheelwrights the Aleman will lay my coal dry like a suph"; "If I get the coals in my part before Mr Benthall get his, then I shall lay Mr Bentalls coal and Bentall marsh dry" and The Pit at Broseley Gate in Willey Park will lay the bottom coal dry without a suph, as the colliers tell me (Weld mss SRO 1224).

Weld frequently refers to "suphs" - presumably drainage channels, although Mr Bentall seems to use a ginn to pump ("Qr whether Mr Bentalls ginn will lay my coals in my park dry").

In lease agreements, it was often the duty of the land owner to provide timber for railways, and presumably as pit props. Clifford agreed to do it for Whittingham in 1608 (Lewis 1974). That resources of timber were critical to successful mining, is reflected in Weld's Memorandum, "sell no timber or wood in Ridgwood, Willey park etc for there will be need of it if I prove to have good coal works". At Benthall, there is more clearly a link between woodlands and mining than can be seen at Broseley.

James Lacon asked his lessees in 1631 to, "keep the lower of the sayd two insetts open and in repayer to give ayer to a lower insett". Pairs of pits were to be found by the early 18th century (**1728**), suggesting a pattern of working and ventilation common in 19th century Shropshire (Brown pers. comm).

The precise chronological or geographic relationships between the use of bell pits, adits, shafts and the long wall system of mining is still uncertain. Whittinghams leases obliged Clifford to find timber for laying rails "unto the face of the wall of the Coles", although the long wall system is more commonly thought to have been introduced in the 18th century, and is certainly in operation by **1728.** Weld uses the term "delph", but also sinks pits. The Calcutts pit is clearly deep, with "ropes and "wyndles... which did drawe upp the ...workmen" (quoted Nef 1932i:309)

3.7 Early Railways associated with coal

"...I suppose the above (railway) is of the mushroom breed, only the

produce of one night," William Ferriday to Lord Forester 1755 (quoted Lewis 1974:241).

The importance of Broseley as one of the places where wooden railways were first used to convey coal from pits is well known (Lewis 1974, Savage and Smith 1965, Smith 1960). But the temporary nature of many lines, the problems in distinguishing underground lines from above ground ones and limited documentation, make it difficult to untangle the pattern.

Lewis credits Shropshire with the first use of the term railway, in the 1680s, the term railroad from about 1702 and waggonway from at least 1631 (1974:256). He interprets the terms to refer to a small gauge wooden railway, carrying specially designed carts, hauled by men until the introduction of horse traction c. 1700. Loads were typically half a ton - with a ton around 40cwt, but possibly smaller (269). The small size is ascribed to the tradition of underground railways in narrow adits.

The Broseley map and lease terminology varies. In 1673 there were "footeridds Insetts or Additts waggon wayes gate wayes or other passages for ye getting of coales...(as well as) sevall waggon wayes gate wayes Comegate wayes or windways", which must refer to the insetts of the map of 1676 (when there is also there is a horseway to the Severn, which may simply be a road). Way-boards and railroads are mentioned at Rowton in 1702. In **1728** "Flint coal waggonway" refers to an underground waggonway, and what must be railways (from their little sticks) are not labelled. In **1831** there was a waggonway and a railway marked in Jackfield.

3.71 Clifford v. Wilcox

Evidence for Clifford's railway activities comes from two cases in the Star Chamber of James I, heard in 1606 and 1608 (Lewis 1974:95ff, Nef 1932, VCH, Brown 1988). The first case concerned land leased by Richard Willcox from James Clifford, presumably in the area to the south of Broseley known in 1620 as Wilcox's Farm. Willcox was mining in Birchleasowes, probably that field shown in 1676 and in the early part of the century owned by Thomas Lacon. Willcox and Wells laid,

"a vary artificiall Engine or Instruments of Timber, which stood your subjects in above twoe hundreth markes, therewith to convey coles from the said ground called Birchleasowes by and through other certain grownde parcell of the said demeasnes of the said Mannor of Broseley now in the possession of your said subjectes into and through the said Calcottes and soe unto the banck of the River of Severn" (quoted Lewis 1974).

This suggests that the Calcutts was separate to the land leased by Willcox. The engine was moved by one man, and could move more in a day than "a Wayne with six Oxen" could in 3 or 4. Clifford was accused of damaging the rails, but claimed that he had done little damage, and that Willcox and Wells were hoping to claim compensation.

In 1605 Willcox sublet part of Calcotts to Wells and in 1607, Willcox and Wells retaliated against Clifford. They took down a set of "tylting Railes" and cut the ropes by which Thomas Prescott carried coals from a pit in the Calcotts to the River Severn, probably for James Clifford.

The Clifford "tylting rails" have been interpreted as a short rope worked inclined plane, close to the riverside. However, the Calcotts Pit is located (by **1676** at least) further from the river. The dispute makes more sense, if both Clifford and Willcox & Wells had long railways, covering the same route.

There are several possible routes for these lines (it is assumed they are above ground):

1. 1676 Horseway

Leading from c. Birchleasowes down to the river, the route is shown **1676** and can be traced as a way cut into the side of the hill today. In Jackfield it suddenly descends as a steep, straight incline to the river past the Coalford Chapel. The route crossed Wilcox's farm and Calcutts.

2. Jackfield Rails

By 1728, there was a railway running from the river bank to the Woonhay Colework, with an underground waggonway leading west to near the Calcotts pit. There is no level route from this railway to the presumed site of Calcott Pit, but after passing through Mone Wood, the line probably crossed west on the embankment by Stablehill colliery and travelled southwest to Birchleasow. This route, however, ran to the east of the stream and although on the land of Woodhouse Farm (which was later sold as part of Wilcox's Farm) did not cross what later became the Calcutts Estate.

3. Railway, 1831

Taken from a sketch map tucked into the Broseley Hall Estate Map, a railway led from the river south west along the present Calcutts road, turning south in the vicinity of the Rock Metalworks, and forming the rough track in the field north of the turnoff to Monewood. It would have terminated just to the north of the Calcutts Pit, the 1676 location of which was well above the end of this railway. The railway crossed Calcutts land. By 1676 the Calcutts Pitt was connected directly to the River Severn by at least one long adit, and so surface transport would not have been necessary to convey coal to the river. The issue of these early railway locations is further discussed by Brown, who has set out other possible routes in a comprehensive map (see Overlay One, Brown 1988).

3.72 Yates' Coppice Lines

By 1608 Clifford had a second line, serving a horizontal drift mine at Yates' Coppice. The most likely location is the plot of land by the later Iron Bridge, illegible in **1621** as ? Coppice, There are four insetts shown in this plot. The Best Randle and Clod coal outcrops a short distance from the river, and so the map probably illustrates four short sets of rails, leading to the mouths of insetts. Ladywood, the other possible location, belonged to the Huxleys. The agreement was that Clifford should provide wood and timber, and the lessee, Jesse Whittingham, should lay railes.

By the end of the 17th century, Broseley had a thriving coal industry, an expanding population and the town was one of the county's largest. Yet in 1613 Cliffords estates had been in debt, in 1630 Weld advised his son to avoid seeking for coles, and at the end of the century wealth does not seem to be concentrated in the hands of the colliers. It seems to have been not just coal itself, but the associated activities such as bargeowning, or small industries which paved the was for industrial expansion in the 18th century.

3.8 The Eighteenth Century Coal Industry

Broseley coal was still a major export in the 18th century, but within the Gorge there was a growing local market for coal. Coal supplies had attracted new industries (such as lead), and the iron industry was becoming more aware of the properties of local coals. Although Clod coal was primarily used for coking, other types of coal were used in roasting ore, in fuelling steam engines and other purposes. Local coal was also used in the clay pipe, brick and pottery industries. There is a very clear trend, by the early nineteenth century, towards a situation whereby coal was mined as an adjunct to other local industries, often by those companies, rather than by a group of entrepreneurial miners, for an export marked. Ironstone became a major mineral export during this period - leases mentioning ironstone are rare in the 17th century, and indeed Weld mentions ironstone "if it be found" in several areas.

Archaeological evidence for 18th century mining is very limited. Many of the shafts can be located from map evidence, but because there is continuity in mining areas (an perhaps in shafts themselves) well into the 19th century, later spoil heaps have obscured most earlier remains. Observations on Benthall Edge over the last decade have demonstrated the speed with which an adit deteriorates, and the entrance becomes lost (Trinder, pers comm).

3.81 Mining Techniques

By 1765 large areas of coal were mined from pits to the south of Jackfield, suggesting that the long wall pattern of mining was in use, whereby a network of galleries leads to a long working face. This was a very different technique to the long narrow adits, leading out onto the river bank of the 1670s. The Broseley Hall Estate Map also shows shafts in pairs - presumably the traditional up and downcast shafts a technique typical of Shropshire mining practice in the 19th century. Long underground waggonways were used to bring coal to the shafts, and overland tramways took it down to wharves on the river bank.

There was at least one, and possibly two pumping engines for shafts located near the river bank (BY 51202, 046). The buildings for these engines survive, but little documentary information. Horse gins were used for winding, and of course tramways continued to be the main form of transport between pits and the river. The main seams worked are the Best, the Flint and sometimes the Middle coal.

3.82 The Pattern of Ownership

The mineral rights for the manor of Broseley passed from Clifford via Porter to the Langley family. Various leaseholders held the rights

through the 18th century, including the partnership of Stephens and Harrison who were mining at Rowton, and in 1758 Henry Rainsford, a partner in the Madeley Wood Company. Mining was begun on the freehold Rowton estate from 1700.

Mining was increasingly undertaken by companies, such as the Willey company who supplied coal to the Old and later New Willey furnaces, or partnerships, such as that entered into between Purcell, William Crompton and William Ashwood at the Woonhay Coalwork in 1728. Yet there was still individual involvement - there were a large number of individual lessees of pits in the manor in the 18th century (Randall 1879).

By 1728 the Broseley Hall estate had emerged out of the lands of the Adams' and Cromptons, and was functioning as an economic unit with considerable mining interests. The Calcutts estate remained separate, but the Broseley Manor owned few lands, and the Welds (now Foresters) were beginning to acquire considerable holdings in the parish. They had bought the Holly Greaves land (and presumably its adits) from Samuel Edwards in 1743 (SRO 1224/3). In the 1720s, the Huxleys customarily reserved the mineral rights on their lands at Ladie Wood and Yates Coppice, whilst allowing others to build (e.g. SRO 1224/3/728-9), and were still involved in mining.

3.83 Eighteenth century mining areas

The Broseley Hall Estate map provides a good picture of mining over one part of the parish in about 1765, and other inferences can be made from leases:

Woonhay Colework

In 1728 there was a group of pits in Woonhay linked by a network of railways to the river. Two unmarked pits lay just by the boundary of Mone wood, and further south, the Brick Pit and the Mill pit in the area later to become the Stablehill colliery. This pair were linked with what is presumably an underground "Flint coal waggonway", running under Perry Furlong and Ox pasture, and the surface railway continues south towards Coneybury. Purcell had a fourth share in the works, worth £30 in 1728 (Randall 1879). Later mining at Stablehill has obscured earlier mining remains, although tramways can still be seen (BY 18401).

Jolly and Bonny Pits

The Jolly and Bonny Pits were located in "The Cow Pasture", a large field just to the east of Jack Field (BY 45504). They were associated with the Flint Coal Waggonway, with a limit of working for September 22 1764. Pits in a very similar location were in use in the 19th century, and may represent continuity. Being near the Salthouses settlement, these may also be the pits which provided brine (Plymley 1803). The area is now wooded, and the pits are hard to locate.

Cornbatch Dingle

There were two pits in Cornbatch Dingle - the Cornbatch Up Pit and the Cornbatch Down Pit, again linked with the river by railway. A "Best Coal Waggonway" is marked, with what seems to be a limit of mining shown for Dec. 2nd 1765. Although near the Tuckies, they are some

distance from the river, and unlikely to be the same pits from which Clifford dumped spoil into the river in 1575.

A shaft survives in Cornbatch Dingle to the south of the Tuckies House (BY 54201). It is on the north side of the stream, by the site of a now demolished house. A platform of spoil there has spilled into the stream. This would be very close to the location of the 18th century shaft, and may again argue for continuity from the 18th to the 19th century in mine shaft location. Little trace of the railway survives (see below).

Palmers Yard

At Palmers Yard, just to the south of the Amies Field, "the flint coal is all got out of Palmers Yard by the Willey Company, out of Marnards pit and sold for £16-00 in year 1765". The pit probably lay on Maynards Meadow, roughly where the Broseley Hospital is today.

Coalpitt Hill

South east of Broseley there seem to be two pits in the Black Lands, and the names "Delf" suggest mining, and a pit to the south by Rodens Meadow. Mining on Coalpit hill dates back to before 1608 (see above). The area was also known as Fiery Fields, and John Palmer is mentioned in a lease of 1757 (SRO 1224/3) where the lessees can use "2 old pits sunk into the Fiery Fields securing air sufficient for John Palmer and John Botteleys pit to get clod coals out of Fiery Fields". Most of Coalpit Hill is now covered with housing.

Ladywood

This area was increasingly mined for ironstone in the 18th century, some of which was supplied by John Toye of Lightmoor furnace, who owned part of the estate. George Mathews leased the "beds, veins or seams of a certain sort of ironstone called crowstone under lands of Owen in Broseley called Ladywood or Yates Coppice (1224/3/748) in 1769

Gitchfield and Rowton

In 1702, Michael Addenbrooke and Richard Edwards allowed a Wayleave to the Severn from the foot rid and pits at Gitchfield and Rowton, with permission to "sink pits, drive levels, lay down way-boards, make railroads and convey coal, ironstone and limestone from Rowton ..to Gitchfield meadow". More detail is given in a later lease, where coals are got, "in a certain place adjoining Rowton called Tar Batch Dingle" (Michael Stephens to Thomas Sprott and Nicholas Harrison, master collier). Thomas Crompton had a footridge at Gitchfield in 1715. Gitchfield was built upon first by a brickworks, and later by a sewage works, and little early mining evidence survives, although there is later material (see below, Nineteenth century mining). Near Rowton, there is mining evidence west and south west of Swinbatch Farm, and considerable evidence in Tarbatch Dingle.

3.84 18th Century tramways

By the 18th century, tramways were common, but it is not always possible to link the right to lay rails in a deed, with an actual tramway and certain deeds included a clause requiring the lessee to removed the rails at the end of a specified period. So it is unlikely

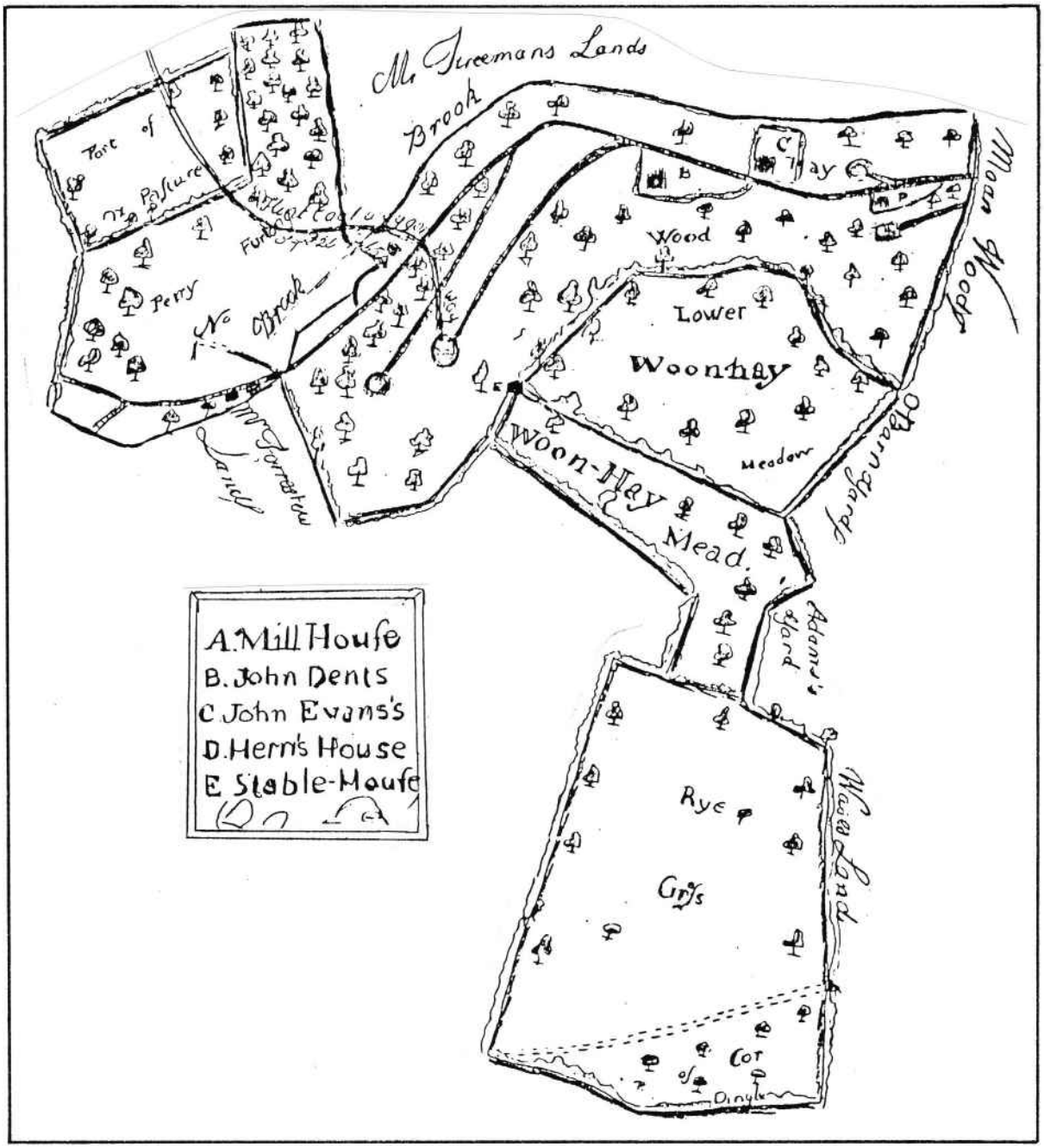


Figure 21: Pits in Woonhay, extracted from Broseley Hall Estate Map (tracing).

that the complete pattern of transport for the 18th century can ever be reconstructed. It is frequently the case that where a tramway is documented (e.g. Rowton), that no evidence is visible, even in a ploughed field. In other places little more than a faint depression remains (e.g. Benthall). Yet, in the Gorge one frequently encounters well made flat pathways, about a metre in width, often with a regular incline or a clear embankment, and often travelling in very straight lines. Such routes would seem to be obvious tramways. In predicting tramways, it is worth noting that roads and tramways rarely coincided. In Coalbrookdale there was a tramway up the Dale before a road was constructed, and the Horseway of 1676 bears no relationship to any possible tramways.

Jackfield Rails

The route of a railway can be clearly established from the **1728** map. The line linked riverside wharves with the Woonhay Colework, and continued south to Horse Pasture with a branch to Mr Welds land. There was a link with an waggonway running west towards Calcott Pitt Leasow, which local topography suggests was underground.

Cornbatch Dingle

A short railway is shown in 1728 linking two pits in Cornbatch dingle, most likely with the river. More problematic is the "Flint Coal Waggonway" leading south from these pits. Little trace of this tramway - which must have led along the side of the stream - survives. However there is very clear evidence for mining, and even an incline leading up the steep hillside in this area.

Coppy Gate

In 1737 Francis Edwards leased from John Eastehope a (road?) from Coppy Gate into and over tenement and lands called Roades Tenement and Beardes Coppy to Hill Top. He was allowed to fence a way, not exceeding 10 yards in breadth and may lay way with rails for a waggonway (docketed "lease of a coal way to Ladywood" 1224/3/526). This may or may not have been the route leading north from Woodlands Green, over and through Ladywood, and marked as a Rail Road on the 1833 OS map (BY 01202).

Rowton.

There is almost no physical evidence for a railway line at Rowton Farm itself, although the line almost certainly followed the footpath running due north from the farmhouse to the river by the later Woodbridge. In the wood a massive clay ramp, several metres wide, leading from the end of the footpath suggests an incline on this route.

Tarbatch Dingle

The railway down Tarbatch dingle was probably begun in 1702 by the lessee of the Rowton mines. By 1757 it linked with New Willey Furnaces, and by 1759 the line was built as a double track. Parts of the line were still in use in the 20th century (VCH draft, Lewis 1974). The route can be seen very clearly as a roadway by the stream, crossing over to the south side of the Dingle, and continuing towards Swinbatch. No trace of the line survives near Rowton. A steep

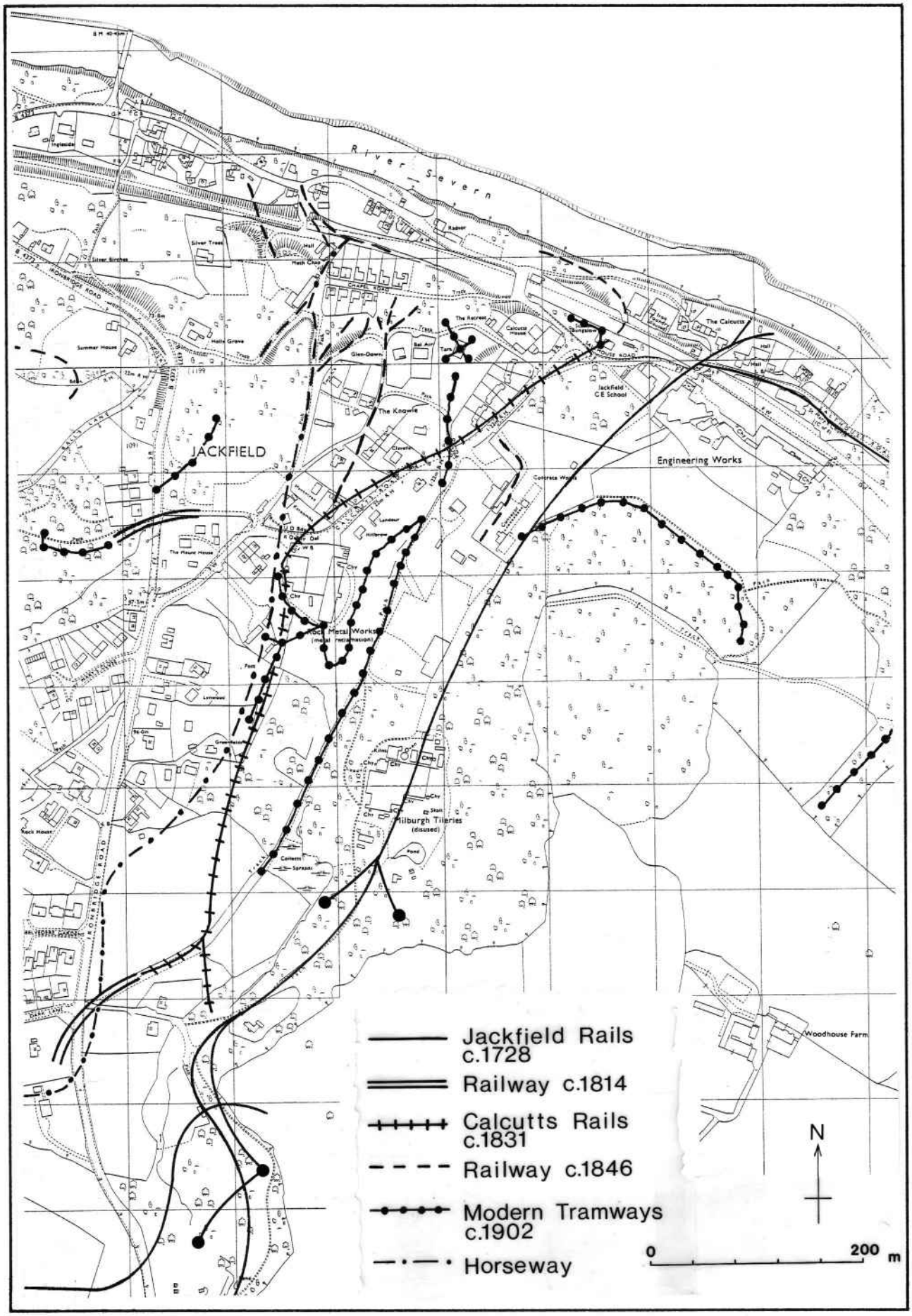


Figure 22: Jackfield Tramway routes, superimposed upon modern OS Map.

embankment across the stream may have linked this line with the Rowton line.

3.9 Coal mining in Broseley in the nineteenth century

Coal mining continued in Broseley until the 1880s, although a few small pits survived into this century. It was linked with other industries, and in particular with brickmaking, which often used clay from old coal mines. On more than one clay mine (e.g. the Wallace) the old coal had been worked out, possibly by the same shafts. Ironstone became an important export from the Gorge in the 19th century, possibly again in association with the mining of clay.

The rather makeshift nature of Broseley mining in the late 19th century is described by Brown (1980). Accidents are frequent, ventilation and equipment makeshift, and most operations are rather small in scale.

There is extensive archaeological evidence for the 19th century coal industry - massive spoil heaps, with traces of their associated railway routes in their final phase survive for the Barnets Leasow, Coneybury, Cockshott, Fishhouse, Stocking and Haycop collieries amongst others. Spoil covers Monewood, and the slopes of the Gorge near the Tuckies. These collieries have generated proportionally far more spoil and waste than can be identified for the sites documented for earlier years. If it were not for these, the impact of mining on the Broseley landscape would be barely noticeable - the occasional dark patch in a ploughed field, or traces of bell pits in woodland are all that remains of the early mining. Adits in particular leave little traces - and the slippage of spoil down the slopes of the Gorge at for example Ladywood, makes individual adit entrances almost unidentifiable.

The following mines were present in Broseley in 1840:

1	pit	William Fifield	William Fifield
132l	castin h, pit	John Onions	John Onions
260b	coalpit at Cockshutt	Forester	Robert Evans
438a	Windhouse bank, coalpit		
b	coalpit	Forester	John Myatt
c	coal pit	Forester	Samuel Roden
475	Stone Stocking pit	Forester	James Foster
477c	pit mount and stone pit	Forester	James Foster
488a	coal pit		Thos Davis
488b	coal pit		Hez Hartshorne
488d	pit mount, cp, steam engine and railway		John Onions
495	Birch meadow coal pit	Thos Wilkes	John Onions
506	coal pit Lower Worf field	FB Harries	James Foster
509	upper worf coalpit	FB Harries	Thomas Roden
525d	coal pits,	FB Harries	Thomas Birch
531b	coal pit	FB Harries	Thomas Davies
551e	coal pit	Forester	John Raspass & J Patten
731	coalpit	Taylor	William Taylor
736	collieries (by Tuckies)	Taylor	Taylor
842	colliery	Davenport	John Onions
869a	colliery	Forester	Robt & Edw Evans

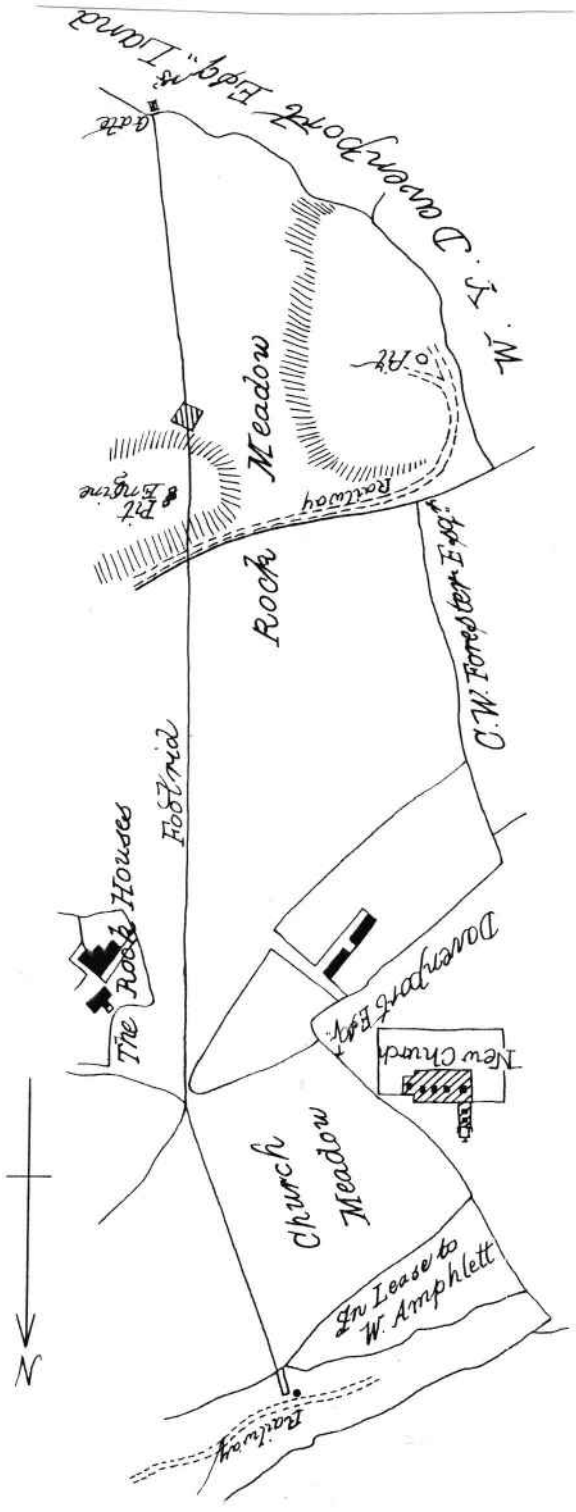


Figure 23: Two tramways, 1814, shown on map accompanying lease of Coalwork between Mr Brodie and Mr William Davis, Brick & Tile Maker (SRO 1681 box 188).

		Wm Richards
869b Haynes pit	Forester	John Onions
886 The Sandy pit	Forester	John Onions
911h coalpits	Forester	Robert Evans
990b coalpit	Forester	John Onions & Thos Rose

It is notable that very few of those listed are primarily miners. Instead they are brickmakers (Taylor, Davies, Onions, Evans, Hartshorne) ironworkers (Onions, Foster), limeburners (Patten) and potters (John Myatt). In the Tithe Apportionment, there is frequent reference to old spoil heaps, now clearly unworked. Some of the workings established in the 17th century are still in operation, although it is not easy to established whether preciseley the same shafts are in use, for example Birch Meadow, Whorf and possibly the Tuckies.

In 1883 collieries increasingly fell into disuse. The Stable Hill, Haycop and Bottomcoal collieries were still operating, but Cockshot, Fishhouse, Barnets Leasow, Stocking and possibly Astleyfields collieries had recently gone out of use. By 1902 all the main collieries had gone out of use.

Most of the pits operating into the twentieth century were clay mines - in Brown's list of pits operating in 1893 in the area, the majority are clay mines (1980:3), and almost all the abandonment plans for local mines are clay mines (Brown 1980:3, pers. com, SJ 60Se). Some, such as the Wallace pit, have old workings in the Main Sulphur coal, but otherwise clay predominates. This suggests that most of the twentieth century mining was for clay, although, as at Benthall, any remaining coal may have been taken out as an adjunct.

3.92 Transport

In the 19th century railways were extensively used to carry coal and clay from mines to brickworks and, at least in the early part of the century, down to the River Severn. The 19th century pattern of mining tramways can be reconstructed from maps (**1814, 1831, 1836, 1840** and the subsequent 1:2500 OS maps). As in earlier years, some of these railways were very short lived, and were relocated as spoil heaps grew around mines, or new brickworks were established.

With the construction of the SVR in 1862, wharves were built for unloading goods from the railway onto the standard gauge line. Remains of these survive at Calcutts, and at the Coalford Brickworks (BY 44402, BY 06007).

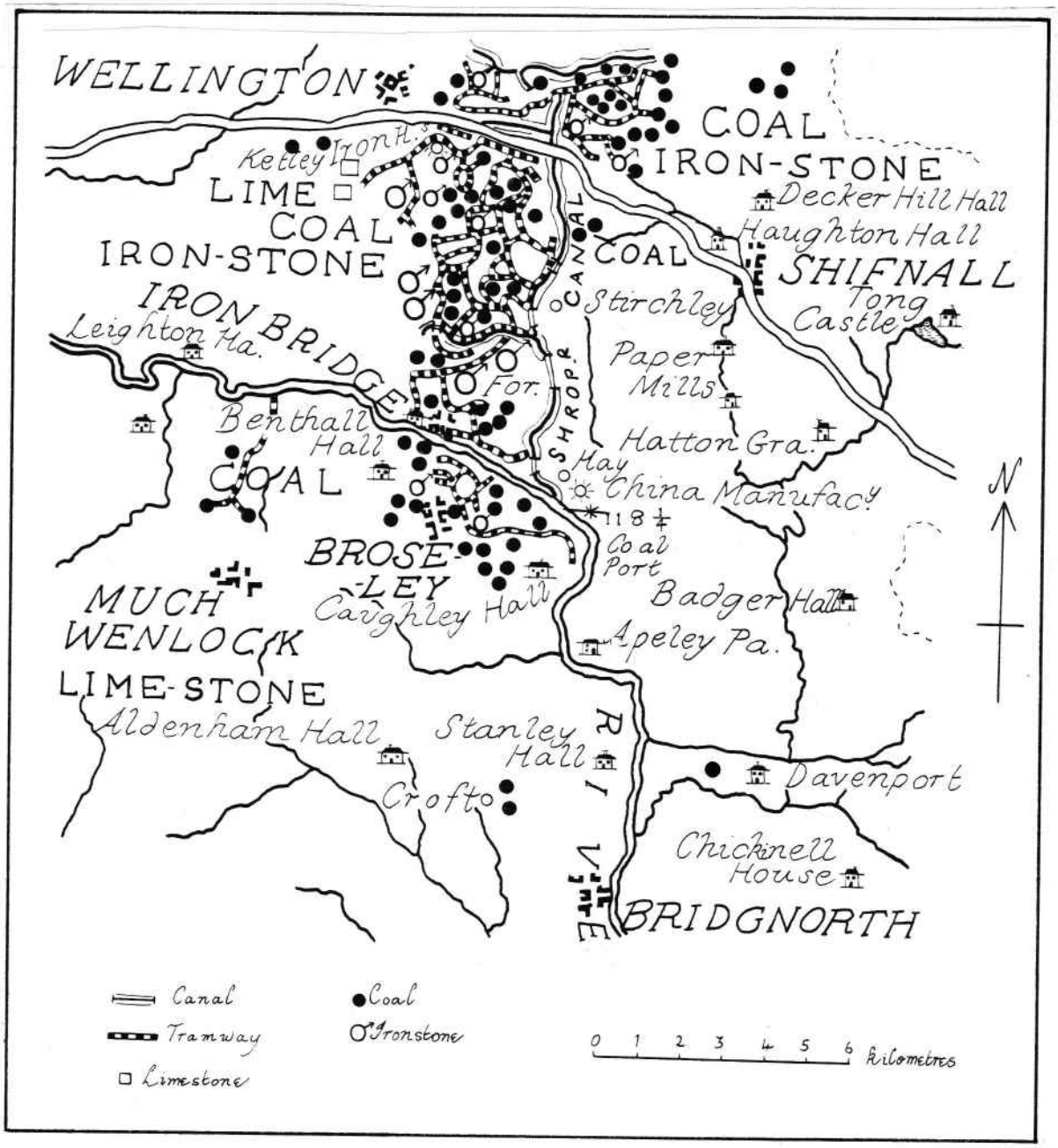


Figure 24: Map of mineral working in the area now known as Telford. (courtesy of Ivor Brown).

CHAPTER FOUR: THE JACKFIELD RIVERSIDE

4.1 Introduction

In an area notorious for its poor road transport (Plymley 1803), the River Severn was vital to industrial development. It provided access to markets for manufactured goods and raw materials produced in the Gorge, and in turn brought products to the area. But the River Severn had one major disadvantage - fluctuating river levels increasingly limited navigation as well as any use of the river itself for water power. There were major floods in 1770 and 1795, alternating with periods of very low water; often the river was not navigable for three to four months of the year. Navigability was declining in the late 18th century, blamed by Thomas Telford on the draining of riverside fields. A Navigation Bill of 1786 attempted to improve navigation with the construction of locks, but was blocked by local interests.

Nevertheless, in the late 18th century the construction of canals provided access to an increasing number of places by river. The opening of the Staffordshire and Worcestershire Canal in 1770 opened up the Black Country and Birmingham, and the Thames & Severn canal of 1789 brought access to London (Trinder 1981).

4.2 Early Evidence for use of the river

Fish Weirs

The report of the Commissioner for Sewers of 1575 (Anon 1888) listed five fish weirs in Broseley (or Madeley) and two in Benthall. The weirs were medieval in origin, and although some continued in use into the seventeenth century, many had been abandoned by 1575.

Pannett (1971, 1973) has identified the typical local weir, comprising weir channel and barge gutter separated by a "byelet" or island. One side would have been staked to trap fish, the other left clear for boat traffic. In the bed of the Severn are a series of regularly spaced gravel bars where deposits concentrate, and between these deeper pools. These natural bars were selected as weir sites, a process which then encouraged further deposition. It is suggested that islands did not occur naturally in the Severn, and that those which remain are the result of deliberate weir construction.

The following are in Broseley:

'Robin' site - the weir owned by Clifford in 1575 and shown on the 1620 map. Known more commonly as the Copie Wear (see below), it was still in use in 1694. Traces of two islands are visible, opposite Bedlam Furnaces, with a channel dug to the south.

'Lloyds' site - probably on gravel bar slightly upstream from Calcutts. Owned by Clifford 1575. Remains of an island are shown on Lowry's 1788 picture of Calcutts, although the apparent weir is simply the rapids (Smith 1979:No 31).

Hay Farm - possibly located in slight widening of stream downstream from the Werps, opposite the Hay Farm, Madeley. The stream here altered considerably during landslips, and also during the construction of Coalport in the 1790s. Presumably Madeley parish.

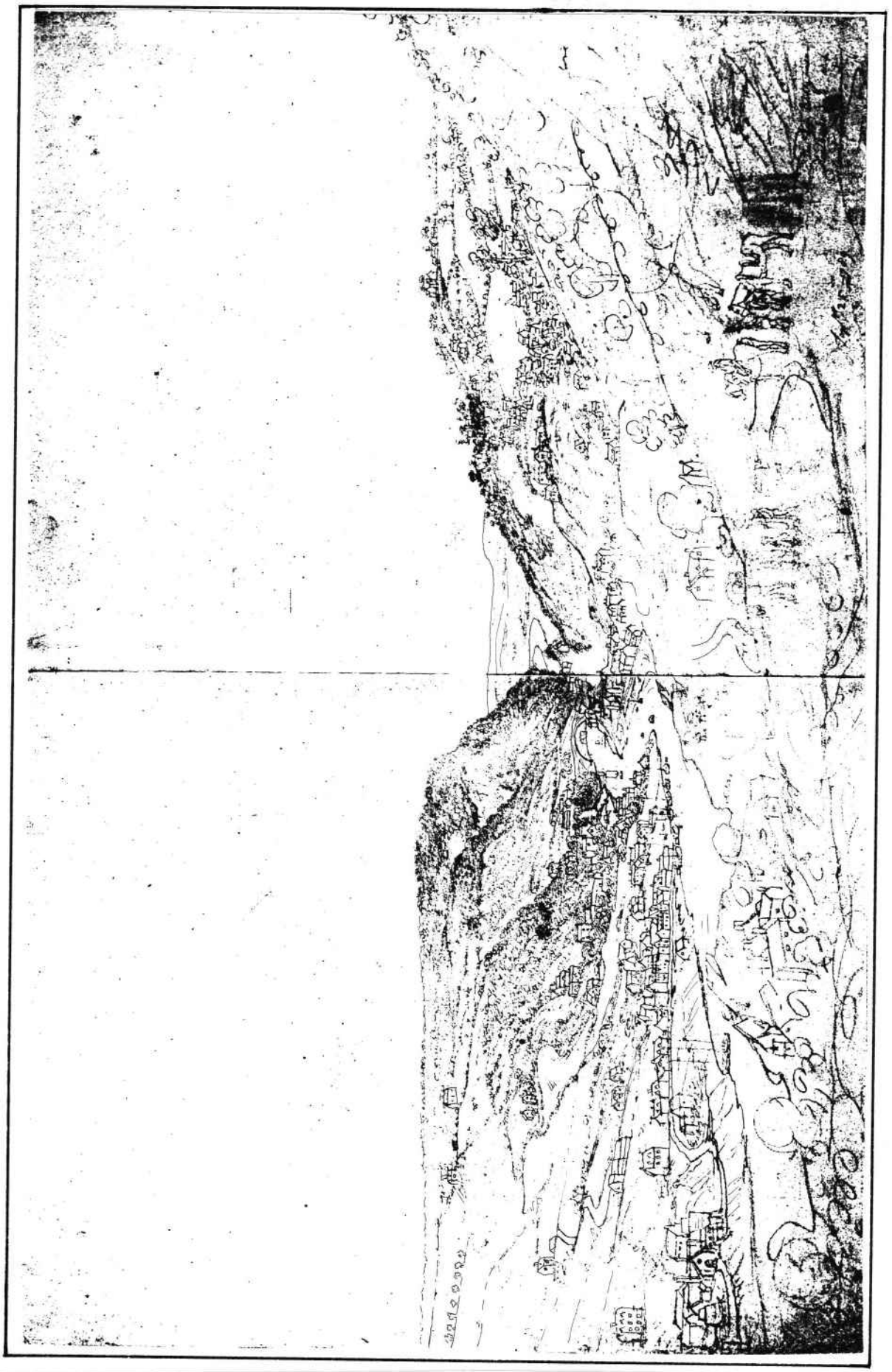


Figure 25: "The Iron Bridge near Coalbrookdale and Country Surrounding" Sept. 25 1789. by Joseph Farington. (note Calcutts Ironworks, the riverside wharves at the Lloyds and the road leading up from Jackfield to Broseley).

Swinney - islands in mid stream near southern boundary of Broseley Parish. Parish boundary follows island.

David Pannett has also cited Sweyney Cliff islands as a possible weir site, now much affected by erosion and the construction of Gitchfield sewage works. "Eaves Mount", where several trows ran aground in the 18thC would probably have been the remains of another local weir. A map of Bedlam furnaces of 1840 shows "Eves Mount", and the river obstruction may have been the old weir opposite Bedlam, built up with waste from the ironworks.

The parish boundary between Madeley and Broseley diverts around an island in the stream, opposite the Maws tile factory. The present riverbank on the south side has been built up by tile dump, and originally was further to the south west.

Copie Wear is documented in association with the land at Yates Coppice. "The gungitt" with fishery called a fishing weare with course of the Severn called the Upper Wear" were leased to John and Mabel Huxley by Clifford's heir John Cage. They in turn sublet it to Thomas Dawley of Benthall, trowman, at a cost of 23s 4d, although John Huxley continued to be responsible for its repair. Thomas Dawley was to pay yearly "one sticke of round eels and one stick of sticke eels". Presumably the same "stream of water, weir, bylands and fishing in river Severn (for) Yates Coppies", were leased together with the land adjacent in 1623, and sublet to Oliver Crompton, who stil leased it in 1639. In 1666, the "ancient weir place or byelett and piscary" still existed (deeds in Tyrwhitt-Jones collection).

Monastic Use of the River

The monks of Buildwas were most likely loading stone from Broseley onto barges near the site of the Iron Bridge. The abbey was increasingly involved in the export of wool as a cash crop, and so would have depended upon the river for transport of the clip. They had the right to load wool onto barges at Cressage, and built the bridge from which they derived the benefit of tolls at Buildwas.

4.3 Seventeenth and eighteenth century development of the river

The early development of the riverside was directly linked to the growth of the coal industry for export. Although illustrations show a wharf to have often been little more than a plank from the riverside onto a boat, there were several locations on the river bank which can be identified as wharves. Each of them forms the terminus of a transport route - most commonly a railway - down to the River Severn. There were wharves at Buildwas and Benthall at the end of railways, as well as Lloyd Head, the Tuckies and Tarbatch Dingle.

The Broseley Hall Estate map shows a wharf to the east of Jackfield in c.**1728**, probably in the area of the Salthouses, linked to the general networks of railways bringing coal from pits in Woonhay and also the Jolly and Bonny pits. This area is now heavily affected by slip and few remains survive.

In order to transport the manufactured goods and requirements of the burgeoning industries of the 17th and 18th centuries, an independent class of local bargeowners emerged, many of whom lived in Jackfield. At first the export trade must have been dominated by coal, brought

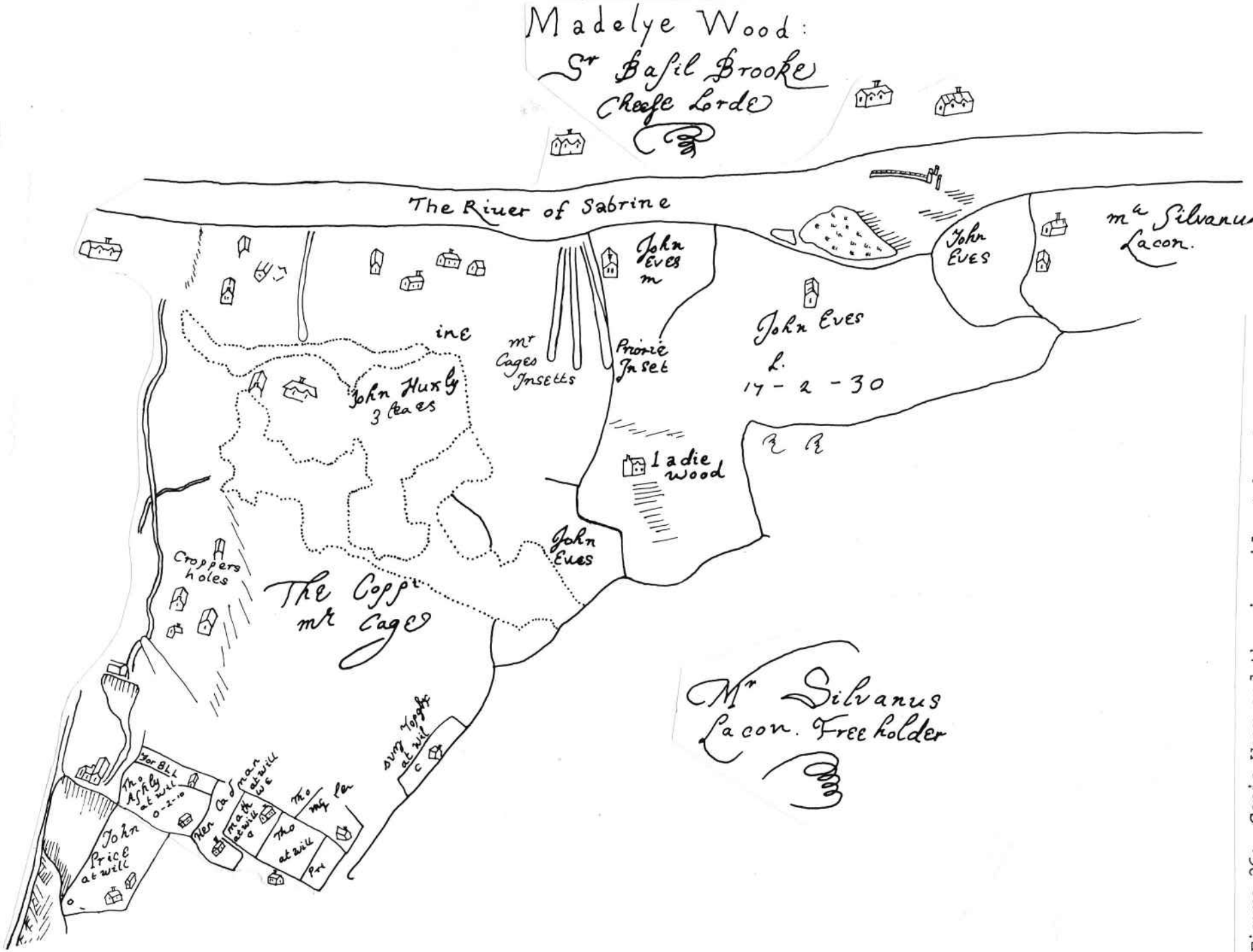


Figure 26: Copie Wear and the riverside, taken from **1621.**

out from mines directly to the river bank. In 1756, when 100,000 tons of coal were produced from the collieries of Broseley and Madeley, there were 55 owners and 87 barges in the parish, and in 1790, there were 33 Broseley owners involved in the local coal trade. The iron industry seems to have had less local significance for bargemen, as barges were chartered to individual customers rather than by local industrialists. Nevertheless, the Coalbrookdale and Horsehay companies were dependent upon local transport for moving goods and raw materials such as limestone across the river (Trinder 1981).

Bargeowners were the class of small scale capitalists who benefited most from the early coal industry. Probate inventories show them to have owned usually one or two barges, varying between £30 and £50 in value. They form a very distinctive group, between the larger landowners and industrialists, with property valued at between £100 and £300, and the labourers and colliers with possessions typically to the value of £1-£5. They took coal on credit, and sold it wherever they could. As a result, some 51 bargeowners owed George Weld £1600 at his death in 1748 (Trinder forthcoming, VCH draft).

In 1841 bargeowners dominated the small community of Salthouses, one of the few areas of small freehold plots of land (sold off from the Tuckies farm) in the parish. John Yates, bargeowner bought land there and built at least one house before 1775, and his widow left 3 houses there in 1800 (SRO 1681, Trowmen and watermen were also building houses at Yates Coppice in the early 18th century and the owner Edward Owen increasingly came to control land there (SRO 1224/3/728-9, 743).

The bargehaulers, however, were a very distinctive class of men, notorious for their bad habits, tendency to steal and dislike of salmon soup (Trinder 1981:65). Public houses such as "The Boat", "The Severn Trow" and the "Tumbling Sailors" catered for their needs. Archaeological investigation of the Severn Trow has shown that the large first floor room was divided into small cubicles with light wooden partitions, indicating that many people could be accommodated in relatively cheap accommodation (Hannigan pers. comm).

A towpath had existed on the right hand bank of the river since medieval times, but increased river activity in the 18th century had resulted in less regulated use of the riverbank by the barge haulers (Pannett n.d.). The aim of the movement to construct a towpath in the late eighteenth century was enable horses rather than men to do the work of towing barges. Approved in 1772, the Bewdley to Coalbrookdale act lay dormant until 1796, when William Reynolds began constructing a towpath at his own expense. It was complete in 1800, and in 1809 extended from the Meadow Wharf at Coalbrookdale to the the Mardol & Frankwell quays at Shrewsbury. Although assumed to follow the north bank of the river, in **1840** there was a clear towing path from the Salthouses downstream.

4.4 The Ferries

The Preens Eddy (later Coalport) bridge was constructed by 1780, and the Ironbridge in 1779, but before that the nearest river crossing points had been the medieval bridges at Buildwas or Bridgnorth. There was a ford at Gitchfield, and probably others, as the Coalbrookdale contributed to clearing fords in 1741 (Trinder 1981:69). and at least three ferries, plying between the north and south banks.

Adams or Jackfield Ferry

This was located about 100m west of the present Free Bridge. A jetty is shown in 1982.1804 extending from the north bank. William Crumpton operated it in 1838, and it was still operating in 1902. Randall traces its origin to Adam Crompton, who owned the house there built 1654, a timber framed building visible in photographs (1982.1804, BY 02802).

The Horse Ferry

Shown in 1838, but out of use by 1856 (SRO deposited railway plan) this ferry ran across the river just downstream of the present Jackfield Church. Massive slip in the area has destroyed any trace of the ferry (BY 44909).

The Werps Ferry

Known as the Werps, Tuckies or Coalport ferry it operated until some time after 1902, when it was replaced by the Memorial Bridge built in 1922. William Reynolds who lived at the Tuckies until his death in 1803 allowed Sniggy Oakes a rent free house and garden in exchange for being ferried across the river (Randall 1979:88). Shown in 1986.6319, remains survive on the north bank (BY 47401, see also Clark & Alfrey 1986).

4.5 Nineteenth century changes in the use of the riverbank

Although navigability on the river was declining, and the road network improving, the river remained important until the construction of the railways, but continued as a means of commercial transport well into this century (e.g. 1986.6320). Hulbert counted 72 boats on the river in 1836, and reckoned that 150 were employed in the whole of the Gorge.

The census of 1841 shows that the river was still a large employer:

	Watermen	Bargeowners
Ladywood	7	2
Barnets Leasow	3	1
Coalford	6	1
Holly Groves	14	
Lloyd Head	6	1
Jackfield	12	1
Salthouses	18	13
Tuckies	5	-
Werps	9	2
Old Rope Walk	1	-
Preens Eddy	-	1
Swinney Cliff	2	-
Woodbridge	1	-

as well as two barge carpenters. Each of the major brick and tileworks shown on the Tithe Map had its own wharf on the riverside, suggesting that the river was an important factor in the location of their works. Only "The Dunge" works up near Broseley did not, implying an orientation towards a more local market. Several firms immediately took advantage of the construction of the SVR - the Coalford works had

their own siding, Maws relocated from Benthall to a larger site with direct railway access, and a siding was constructed to serve Doughtys works and later Milburgh Tileries at the Calcutts. Yet other firms continued to use the river for deliveries. William Exley owned the barge "Three Brothers" built at Bridgnorth in 1858, later owned by John Burroughs of the Ladywood Ropery and Fire brick works (JWS 1978:21-2). Bricks were traditionally the last cargo to be carried on the River Severn.

Massive dumping along the riverbank by firms such as Coalford, Maws and Craven Dunnill indicate that wharves around Calcutts were no longer important in the late 19thC, although that at the Lloyds is still relatively clear of debris.

4.6 The Archaeology of the Riverside

Wharves leave little archaeological evidence. Many prints show trows tied up at the river bank, with no sign of a built wharf, unlike the north bank of the river, where large stone walls, broken by routes down to the river itself, extend from the bottom of Coalbrookdale to Reynolds elaborate wharf facilities at Coalport. On the south bank there are traces of built stone walls just below the Ironbridge at the mouth of the Benthall Brook,(shown Smith 1979:14) associated with the construction of the bridge and at the Lloyds. In part the lack of constructed wharves is due to the action of the river, which actively the outside of the bend to the north, but deposits material along the south bank.

Ladywood

Clifford's lease to Jesse Whittingham included "four wharf places in the said pasture by the River Severn" . The 1620 map shows four railways from each of the adits, leading to the riverside, where there was presumably a loading area and perhaps built quay for each. Trows are shown moored here around 1780-1820 (e.g. Smith 1979:no 14,67,68 & 95) and there may have been a stone built boat inlet.

At the western end of plot BY 001 there are three old plots. They are low lying, and divided by boundary walls, and would have provided access, via an old road running south east, to the mines in the Ladywood area. The land to the east slopes much more steeply down to the river, and would not have been suitable for transferring cargoes.

Calcutts Wharves

Located at the terminus of the Jackfield Rails, and later several other tramways, the use of this area as wharves may well date back to Cliffords early mining at the beginning of the 17thC. In 1728 the Jackfield rails, brought coal from the pits in Woonhay Wood to three places on the riverside; another branch led to the riverside to the east at the Salthouses, as well as to the Jolly and Bonny pits. Thus four separate loading places were used on the river bank.

The Weld estates were using the wharf in 1748 when 122 waggons of coal awaited transhipment there (Trinder 1981:). Lowry's picture of the Calcutts shows a road swinging west around the front of the ironworks, to the riverside just by the corn mill. Three cannon wait on the riverside, and stones and possibly iron rails wait to be taken up. A group of barges are moored further to the east, beyond the works.

In **1840** the ironmaster James Foster used the wharf himself, but leased the western end to the brick maker Hezekiah Hartshorne. With the construction of the SVR, the tramway route serving the wharf was terminated in a railway siding, and the riverside used to dump tile waste from the Coalford brick and tileworks. The Salthouses tramway may have gone out of use earlier.

The Calcutts area is not an ideal location for a wharf. Although dumping has obscured the original river bank, prints show that even in the 18thC the land sloped steeply down to the river. The river is actively cutting away deposits to the west of the Calcutts site on plot BY 443. The corn mill has disappeared, and the bank behind it is made up of over five metres of late 19thC dump from the brick and tile works. Below this lies a spread of earth, sitting on about 75cm of compacted fine layers of small pieces of slag, ash and brick. This in turn lies over a metre of large pieces of blast furnace slag down to river level. Thus during or soon after the operation of the ironworks, a level surface was made up, about 2m above river level. This surface went out of use and was dumped upon in the late 19thC (BY 44303).

The riverbank itself was held in place with massive wooden piles, and sandstone walls, traces of which still survive. Further archaeological investigation is in progress in this area (Duckworth forthcoming). A small path leading to a brick shed to the west of this plot, post dates the deposition of the tile waste.

Below the Severn Trow a built pathway can be traced in the slope of the river bank two metres below current ground level. The path of the tramway down towards the river has been obscured by waste from Craven Dunnill. The land slip at the Salthouses has destroyed any traces of wharf there.

Lloyd Head Wharves

A much more suitable location for transferring cargo to and from boats was the area of Lloyd Head, upstream of the Calcutts. Again it was at the terminus of a group of tramways in the early 19thC and earlier, bringing coal from the Birch Batch area, and servicing the Holly Grove tileworks. Farington depicts a group of trows moored here in 1788. The brick and tilemakers Thomas Roden, Thomas and William Davies and the coal master John Onions each had wharves here in 1838.

There is a built stone wall, about two metres high extending along the river bank on plot BY 05706. To the west a terrace 2-3m wide runs along beside the river, providing easy access to boats, from the roadway above. The railway from the Hollygrove works of **1840** would have terminated between the stone built wharf and the terrace.

Tuckies Wharf

In 1728, rails led from the Cornbatch pits to the "wharf" located to the east of the mouth of the Corbetts Dingle stream. Clifford was mining in the area, dumping spoil into the Severn, and presumably exporting coal from the site in 1575. Little trace of the railway remains, and the area by the river bank has been built over for the later ferry and footbridge. The Tithe map shows a boat arm extending into the river.

The Coalport Bridge

With the construction of this bridge in 1780, the proprietors gained permission to construct wharves on either side of the river. Traces of stakes, and built stone walls remain in the bank below the Woodbridge Inn, but there is little else to suggest that there was ever a wharf on the south side of the river.

The Willey Wharf

Located at the terminus of the Tarbatch Dingle railway, this allowed the products of the estate - and in particular the Willey furnaces - access to the river. John Wilkinson used the site to launch his iron boat.

CHAPTER FIVE: THE POTTERY INDUSTRIES OF JACKFIELD

5.1 Introduction

Jackfield was the centre of a thriving pottery industry in the 17th, 18th and 19th centuries. Although never on the same scale as the industry at Stoke on Trent, just 25 miles away, many of the same wares were produced and there is evidence for the movement of potters from one community to the other. The area produced salt-glazed stonewares, yellow and brown slip wares, black coarsewares, the reknowned black Jackfield wares, and a variety of 19th century products, all very similar to those at Stoke. The relationship between the two industries, both in time and in terms of the development of new types, would be a fruitful area for further research.

It has to be accepted that the archaeological evidence for pottery production at Jackfield is limited - the importance of the area was recognised by John Malam, and both he and David Higgins undertook extensive surface collections. Excavation of one kiln at the Craven Dunnill site by the IGMTAU produced tantalising evidence for hitherto unknown production. Kiln sites are vital to the understanding of local pottery production, and it is important that any development in the Jackfield area is closely monitored.

5.2 Early 18th century pottery production

Early pottery production at Jackfield was discussed by Jewitt (1878), Randall (1877), Chaffers (1870) and Marryat (1857), all of whom agree broadly on the sequence of events, but for which few sources are quoted. Benthall supplemented this work with study of the Broseley parish registers (1955), but there remain serious discrepancies in the chronology of individual involvement in pottery manufacture.

There is increasing archaeological and historical evidence for the establishment of an early earthenware industry, and certainly the production of salt-glazed stoneware by the 1720s (Malam 1981). The finding of a brown mug, dated 1634, in an old mine at Jackfield is well known (Randall 1877:7), but the earliest documented evidence for pottery production comes from the Poor Law records held at Wenlock, which report the movement of potters from Stoke on Trent to Broseley in 1723-5. They came to at least two potteries, one run by William Bird, and the other by Joseph Garner. The scale of migration suggests a shortage of local skills possibly for a new industry (Hawes 1974). The dating would relate well to the establishment of a salt-glazed stoneware industry here (see below). Trade seemed to have slumped in the 1730s, when at least 13 potters were claiming poor relief (although gaps in the Poor Law records need to be considered). Randall claimed that a Richard Thursfield came to the area in 1713, taking over a pottery from Joseph Glover who may be confused with Garner. Joseph Gardner, potter was involved in a lease of a house, outbuildings and land at Jackfield in 1753 (SRO 1681 Box 33).

By **1728** there were three "Mughouses" in Jackfield - consisting of three rows of cottages with a kiln at one end, as well as a "Potworks" operated by Morris Thursfield. The works cannot specifically be linked with either Garner or Bird, but do show the extent of pottery production.

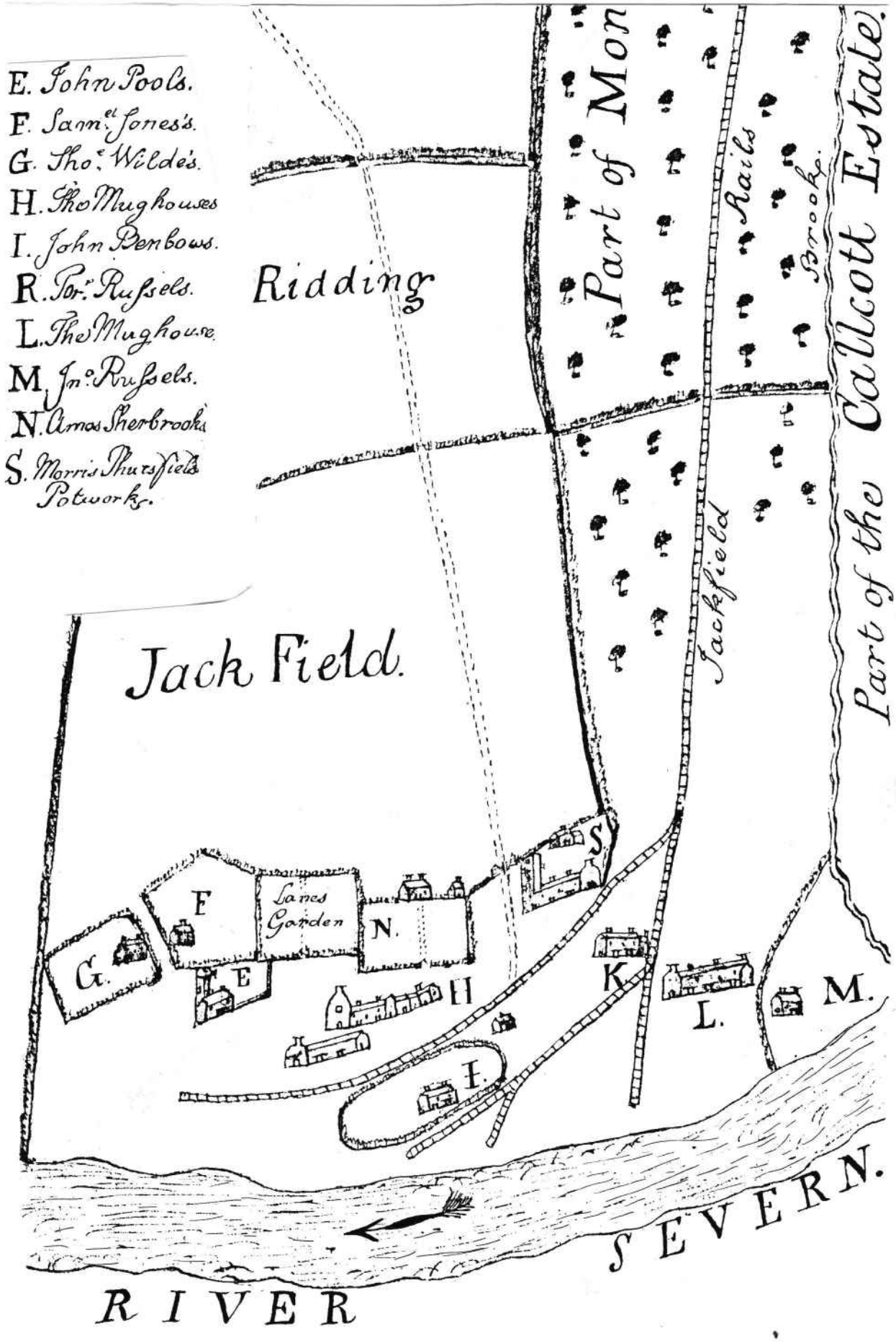


Figure 27: Jackfield Riverside, taken from Broseley Hall Estate Map c. 1728 (SBL).

5.3 Late 18th and 19th century pottery production

The Lady Day rents of 1773 indicate three "Potthouses" in Jackfield. The works probably made slipped earthenwares, perhaps the black glossy Jackfield ware and a variety of Whieldon ware, as well as no doubt a range of other late 18th wares. There is archaeological evidence for the production of porcelain, perhaps by John Rose, who worked briefly in Jackfield after leaving the Caughley works, and before becoming involved at the Coalport site. Presumably the potteries were using local coals and clays, and exporting material down the River Severn. Potters were experimenting with new types of ware, and very much in the forefront of production.

The very large quantities of press-moulded slip wares and coarse black earthenwares found on sites throughout the Gorge may reflect local production. Certainly there seem to have been technical developments in the late 18th century which enabled press-moulded wares to be produced on a large scale with consistent quality.

By 1800 Mocha wares, cream wares and blue transfer wares were also made, and soon after there may have been early experiments in the production of encaustic tiles. But by the middle of the century, Jackfield pottery production had moved towards more mundane articles - pale yellow earthenware bowls, large earthenware basins, flower pots etc. Slip wares may well have continued to be produced (as at Benthall) throughout the 19th century. It was only with the establishment of the Craven Dunnill works in 1874 or the Maws tile factory in 1882, that art pottery of fine quality was again produced.

5.31 Locating the 18th century potteries

Scattered documentary references to pottery production in the 18th century are almost impossible to link to individual sites, if nothing because most of the protagonists were called John Thursfield. Randall (1877) implies the existence of only one pottery, and Jewitt (1878) is vague on the subject. It is more likely that pottery production occurred on several sites. Bird and Garner both had potteries by about 1723 (Hawes 1974), with possibly another occupied by John (or Richard, according to Randall) Thursfield (Jewitt 1878:180). In **1728** there were three Mughouses and Morris Thursfield's pottery, and by 1773 there were three "Potthouses".

One group of premises must have been the site of the present Craven Dunnill works, where a pottery stood from at least **1728** until 1874. The others may have been the works shown on the **1728** map to the north. Of these, only one group of cottages stands, without its attached kiln. But large quantities of pottery wasters have been found nearby (see below).

The Lady Day rents of 1773 show that William Davenport was paid (quoted Rimmell 1983:17):

Mr Richd Simpson for pott houses	£7-5-0
Messrs Thursfield & Bell for Pott-house	£2-15-0
Mr Morris Thursfield for Pott-house	£0-15-0

Richard Simpson's Pottery

From its rent, the largest of the potteries in 1773. Jewitt

(1883:180) said that a Mr Simpson took over a pottery in 1763, Randall suggests that in 1772 a Mr Simpson took over a pottery from John Thursfield II when the latter set up the Benthall potteries. By the 1780s, an Aaron Simpson was manufacturing pottery at Jackfield.

Morris Thursfield's Pottery

William (called Morris) Thursfield (1748-1783) died in America where he had delivered a cargo of earthenwares, trying to re-establish trade with America after the revolution (Benthall 1954:161). He was unlikely to have been the same Morris Thursfield of the **1728** map (unless the pottery, like much of the mining information is a c1765 addition to the map). Morris Thursfield was credited with the manufacture of black decanters (Jackfield ware).

Morris Thursfield's pottery passed to Edward Blakeway in 1783 (Jewitt 1878:180), who was joined by John Rose and William Horton of Caughley soon after. The partnership moved to Coalport in 1796. If porcelain was manufactured at Jackfield, it was very likely on this site.

Thursfield & Bell's Pottery

John Thursfield and John Bell leased the site of the Haybrook pottery in 1742 (Benthall 1955), but these could not have been the same people as those who leased a pottery in Jackfield in 1773. John Thursfield I died in the 1760s, and John Thursfield II was 11 in 1742. Bell & Thursfield were making pottery in Jackfield in the 1780s

John Miles' Pottery

Recently a large amount of slip ware and black-glazed coarse earthenware were found during renovation at a cottage in Ladywood (BY 013). The first documentary evidence for a pottery in the area was a lease of ironstone and coal, under which Edward Owen reserved the right of the "...liberty of working potteries and brickworks now erected thereon" (SRO 1224/3/749). The brickworks were probably the Ladywood Brickworks, established in 1761. Of the pottery, there is further mention in Owen's will of 1787:

"...house, garden and pottery works (John Miles) and ground, part of lands called Ladywood, from the railroad near the pottery works to the ground now staked out as belonging to Edward Owen's malthouse and other buildings adjoining pottery works and to ground or fence separating the estate of George Forester from Ladywood, and then to the other end of the building called the round pottery ware work and the land from the railroad side above the pottery ware work called the flat ware work to the edge of the bank below to the flat ware work, and adjoining the hedge of a garden (John Miles) with right to carry clay from Ladywood to use in the pottery work." (SRO 1224/3/752)

In the minute book of the proprietors of the Iron Bridge (IGMT library), there was mention of a, "potters oven and other buildings situate upon the road in the occupation of John Miles" to be, "taken down for widening the said road...the materials...to be used in building an arch over the brook going on the side of the said road "(16th June, 1783). We have previously suggested that this might refer to the reputed kiln base at Brook Cottages (Clark & Alfrey 1987:64) although a site closer to the river would now seem likely.

The malthouse would have been that by the Iron Bridge (BY 001), and George Forester's land lay to the west of Ladywood. The railroad may either have been that down Bridge Bank, or another through Ladywood (see Chapter Three). There seem to have been at least two potteries - the flat and round ware works, but these cannot be located precisely. The present building (BY 01302), might either be a works, or the house of John Miles or a dumping site for nearby potteries. Flat ware might be interpreted as press-moulded wares, made from flat clay slabs, and round ware could well be the wheel thrown or coil built pieces. John Miles died in 1808, and a lease of that year covered a "messuage, land and pottery (John Hale, now John Burton)" (SRO 1224/3/757).

Other Potters

Various other potters were active in Jackfield in the late 18th century. On May 12th, 1788, William Greatbatch wrote to Thomas Byerly at Mr Wedgewoods, suggesting that he was "now at Broseley giving orders and directing a new kind of kiln to fire enamel with coal which is expected to answer the purpose" (KUL 14280-21). In fact he was "partly out of the way to prevent being arrested". He was exceedingly anxious to receive "a certificate", which might be interpreted as a patent for the method, perhaps claimed by someone else. Greatbatch could simply have been working at any of the above works. The name Aaron Simpson has also been associated with pottery manufacture in the area.

5.32 The Thursfield Family

The name Thursfield commonly occurs in association with the manufacture of pottery in Benthall and Broseley parishes. The family came from Norton-in-the-Moors, close to Stoke on Trent, and to the original home of Ralph Browne of Caughley Hall, who acquired Benthall estate in 1720 (Benthall 1955:159). In 1713, a John or Richard Thursfield took over a pottery in Jackfield from Mr Glover (Marryat 1857, Jewitt 1883), although (Hawes 1974) suggests that in 1723 John Thursfield took over from Joseph Garner. By **1728**, Morris Thursfield was operating a potworks at Jackfield under the site of the present Craven Dunnill works.

Another John, known as John Thursfield I (1707-1760) leased Haybrook pottery in Benthall from George Weld by 1742. His eldest son, John Thursfield II inherited the Haybrook pottery, and in 1772 built a new pottery across the road from the Haybrook site, the Benthall pottery. The second son William (known as Morris or Maurice) Thursfield (1748-1783) was also involved in the potteries, and died in Philadelphia where he had taken a cargo of wares. Finally John Thursfield III (1764-1816) carried on the Haybrook, Benthall and Jackfield potteries together in the late 18th century (Benthall 1955:161).

5.4 Nineteenth century potteries

Both Maws and Craven Dunnill manufactured art pottery in Jackfield (see Chapter Six), yet there continued a tradition of the manufacture of mass produced earthenwares, probably already well-established by 1800.

John Myatt's Pottery

A "new" pottery was established by John Myatt in 1836 (Jewitt 1883:

180) producing brown and yellow stonewares. Randall suggested that it was in fact on the site of Morris Thursfield's pottery (1877). In **1838** Myatt and Yates were making pottery at the later Craven Dunnill site.

The Ivanhoe/Ashtree Pottery

By 1851 (Census), there were two earthenware manufacturers in the neighbourhood - George Proudman and William Exley. Proudman was most likely at the Ivanhoe Pottery, located on the later Craven Dunnill Site (Bagshaw 1851), employing 24 men and 3 boys and making all kinds of earthenware. The site no doubt had long been in use as one of the 18th century potteries.

The Ivanhoe pottery was taken over from Proudman by George Wootton of Staffordshire in 1854, and became "The Wootton and Jackfield Pottery" when an inventory of fittings was made (see Appendix Two). The land owner was Robert Yates, the bargeowner. By 1859 the works were in considerable disorder, and Woottons solicitor wrote to the owner (now Mr Harries) requesting repairs. Clearly the owner was searching for a new tenant in 1860, and in response to an enquiry from E. Tooth of Burton on Trent, it seems that the rent was £40, that there was plenty of clay, that coal cost 10/- per ton, and that the works included two kilns, plenty of saggars, and made yellow-brown wares, and milk pans Richard Ray took over the works in 1860, when another inventory of fittings was made.

A year later George Ray and James Bradshaw were at the works, and soon after Thomas Hassal was making earthenware - perhaps at that site. Ray and Bradshaw gave notice that they intended to give up pottery in 1862. Harries tried to find a new tenant, and approached Maws who declined although they did offer to purchase the works. By 1863, John B.Hawes was at the "Jackfield potworks", having purchased them from Hassel, soon to be joined by his son-in-law James Denny. When he examined the moulds at the pottery in 1865, Peter Hopkins suggested that they were "mostly worn out and destroyed, and what remains are of little value and cannot be worth more than twelve pounds", and within two years Hawes and Denny were producing tiles under the name "Jackfield Geometric and Encaustic Tile Works". (SRO 1681 Box 189).

It has been assumed here that the Ivanhoe Pottery and the Ashtree Pottery were the same works. The Ashtree Tavern was located just to the east of the site of the pottery under the later Craven Dunnill works, and presumably the pottery took its name from the tavern. There is one note of caution; on the 30th June, 1863, John Hawes at the Jackfield Pottery wrote a letter which mentions the Ashtree Tavern Pottery, suggesting that the two are not the same (SRO 1681 Box 189, see also BY 45402 for summary chronology of Ashtree site).

William Exley

The other earthenware manufacturer in the census of 1851 was William Exley. He employed 57 people at an earthenware manufactory at Lloyd Head, although of these 14 were coal miners, 32 brickwork men and boys, 5 bargemen and 5 labourers. It is possible that both earthenware and bricks were made here. In **1845** a Potworks existed to the south of the Coalford Brick and tileworks (although in **1838** the site was a brick shed let to Thomas Roden).

Earthenware turners and manufacturers were still living in Jackfield in 1871 (Census), suggesting that earthenware manufacture continued even after Hawes & Denny had begun producing encaustic tiles.

Peter Stephan

A potter called Stephan had a pottery at Darby and later Jackfield. His son, Peter Stephan produced "some strikingly good arabesque patterns in blue printing", marked with an anchor. The same Peter Stephan experimented with encaustic tiles (Jewitt 1878:181).

5.5 Pottery Types

Only one excavation has produced well-stratified pottery from Jackfield, and it was not possible to extend this excavation below the level of the most recent kiln on the site (Higgins 1985:179). Other evidence comes mainly from surface collections. Direct evidence for manufacture from such collections is rare - for example few "wasters" of the famed Jackfield ware have yet bee collected. The sample is further contaminated by the possibility of dumping from other potteries in the area.

The understanding of the pottery of Jackfield is a study in itself, and only a brief summary of past work is presented here. Jones (1988) presents a detailed typology of the coarse earthenwares found in the Gorge, which makes major contribution to the study of local wares, particularly in view of the concentration upon the study of porcelains and fine earthenwares.

Medieval Pottery

As yet there is no archaeological evidence for the manufacture of medieval pottery at Jackfield. Sherds of coarse earthenware, with a gritty fabric and traces of green glaze have been found at the Salthouses site, although none of these were obviously wasters (JF81 U/S).

Salt Glazed Stoneware

Archaeological evidence for the manufacture of stoneware is very clear. In 1981 John Malam published his findings of sherds and wasters of salt-glazed stonewares, fragments of saggar, burnt flint and some kiln furniture from the Jackfield river bank (SJ 689029). The material included scratched-blue decorated fragments, and pieces of plates, lathe-turned tankards, shallow bowls and lids. He suggested a date range of c.1730-60 based on similarities with the Staffordshire material. In Staffordshire the introduction of calcined flint and a white stoneware body has been dated to around 1720.

This work has further been confirmed by finds of wasters and saggars from other sites, notably JF83A just to the south of the Craven Dunnill factory, and the saggar wall mentioned by Malam and located at the Salthouses.

Several of the secondary sources mention the manufacture of salt-glazed stone wares at Jackfield. Mr Glover "used the old salt-glaze for his ware", and subsequently the type of ware made at Jackfield was a "white stoneware, very similar to the Staffordshire make, and on some examples flowers and other ornaments were incised and coloured"

Randall mentioned the manufacture of white salt-glazed stoneware (VCHi:436) there, and in 1763 Simpson was making, "a stoneware, the body of which was pipeclay glazed with salt" (Jewitt 1883:180).

Slipped Earthenwares (hollow wares and flat wares)

Press moulded flat wares and wheel thrown pieces with one of two finishes are found throughout the area: the first is a yellow colour formed by the use of clear lead glaze on a buff fabric, and the second is a dark brown colour created either by clear glazing an iron rich fabric or by applying a slip to a buff fabric and then clear glazing it (Jones 1988). The similarity in forms and glazes suggests that the wares were produced at roughly the same time by the same manufacturers - press moulded pieces often have black glaze, and hollow wares display slip trailing.

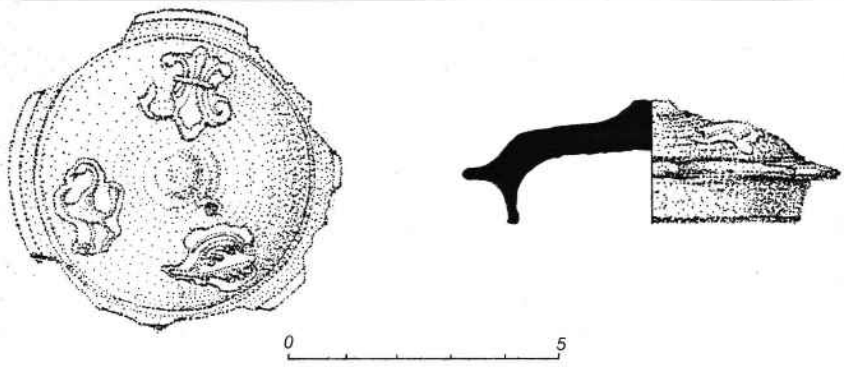
Two fabrics are found - the buff fabric used mainly for the press-moulded pieces and finer wares, and the red fabric used commonly, but not exclusively for coarse vessels.

Direct evidence for manufacture has come from Salthouses (JF84) and from the collection of JF 83A. Neither can be related to a specific pottery, and the latter could be any one of the potteries shown on "Ashtree" map. A considerable quantity of material, but no wasters, was found at Ladywood (BY 01302).

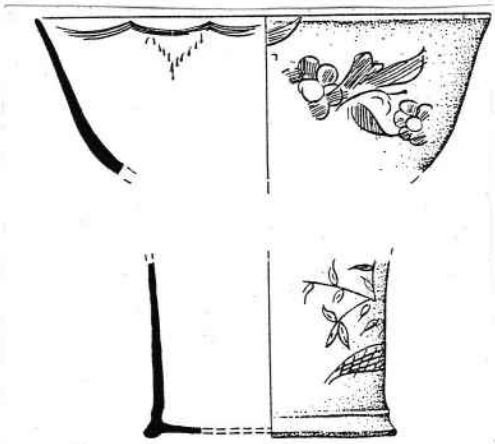
The ware dates from at least the mid 18th century, but manufacture may continue throughout the 19th century. Simpson was making yellow wares in 1763 (Randall 1877), but in 1859 yellow-brown wares were still made at Ashtree (see below). Eliza Lees made Yellow earthenware at Jackfield in 1861 (Census). Slipped earthenware was found at Caughley, dating to Ambrose Gallimore's tenure of about 1750 - 1772 (G.Godden pers comm) and such wares were produced at the Haybrook pottery from about 1743. The pottery in Ladywood was in operation from c.1770s until after 1808. Randall mentioned the "red and yellow wares which find such a ready market in Wales" at the Benthall potteries in the nineteenth century, and Benthall found a large number of slipware sherds, many with crimped edges which he called "the traditional form of slipware or Welsh dishes for which the Benthall Potteries even today get occasional enquiries "(Benthall 1955:169), suggesting that such wares were made into the twentieth century, at least at Benthall.

Elsewhere in the Gorge, Andrew Bradley leased a small earthenware pottery at Coalmoor, near Little Wenlock in 1767 where surface collections have revealed large quantities of slip wares (Jewitt 1878, SNL).

At Stoke on Trent, slip decorated flat wares and hollow wares date to before 1700. Press-moulding is known from Bristol at a date of 1652-6 (Barton 1964 quoted Celoria and Kelly 1973). However, very casual examination of the wares of the Jackfield show similarities with assemblages of slightly later slip wares, dated to c. 1730-60 from Stoke (Celoria and Kelly 1973). Jones has noted the regional distinction that the buff body with dark slip predominates locally, as opposed to red body with yellow slip in Staffordshire as well as the characteristic that wares are plainer than those in Staffordshire (1988).

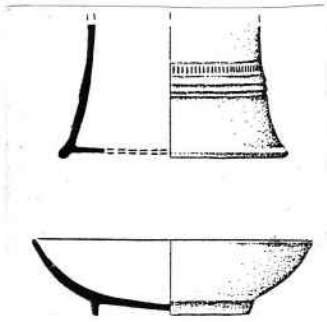


Red earthenware (unglazed) with white sprigged decoration. Found 133 Church Road, Jackfield. JF 82.



Saltglazed stoneware with scratched blue decoration. From Salthouses area, JF 81U/S.

White saltglazed stoneware. JF 81U/S.



Saltglazed kiln furniture. JF 81U/S.

Figure 28: Jackfield Pottery Types (illustrations courtesy IGMTAU)

Jackfield Ware

There is as yet little archaeological evidence for the manufacture of the eponymous Jackfield ware, a glossy black ware with a very fine red fabric, and occasional gilt decoration. Ceramic historians dislike the term, although it remains in use. The ware was definitely made in Staffordshire in the period 1730-60 (Celoria and Kelly 1973). Morris Thursfield of Jackfield was credited with the development of the ware (Messenger n.d.), and made it prior to the arrival of Richard Simpson at his works in 1772. When Edward Blakeway took over the works, black decanters were still in production (Randall 1879).

Broseley Cloudy Ware

There is documentary evidence for the production of what was known as "Broseley Cloudy Ware" by Bell & Thursfield, and Aaron Simpson between 1784-7. The ware was brought by a retailer, Mr Joseph Ring of Bristol (Owen 1873:344). It has been suggested that this is another name for the ware, produced at Little Fenton in Staffordshire by Thomas Whieldon. Whieldon was producing Jackfield ware himself, and may well have had links with the area (Rimmell 1983:53). Sherds of blotched brown and green ware with a "tortoiseshell" finish have been found at the Salthouses, one sherd of which is dusted with material suggesting that it might be a waster.

Porcelain

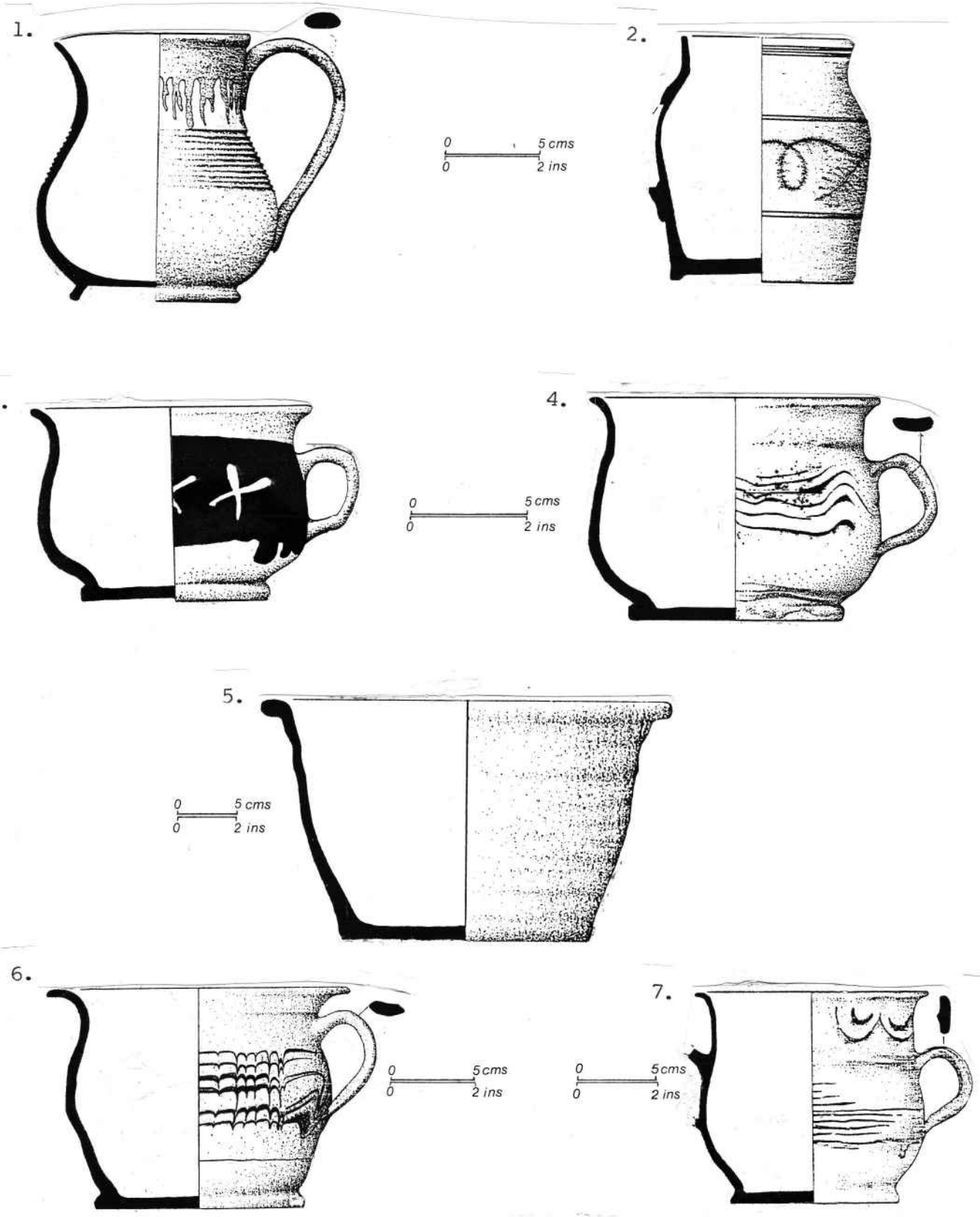
Soft-paste porcelain was manufactured at Caughley from 1772, and at Coalport from 1796, but the finding of quantities of porcelain wasters including fluted bowls, highly typical of Caughley, in a sewage trench (JF 83A, Rimmell 1983:46) raises the possibility of manufacture at Jackfield (although dumping from across the river cannot be ruled out). Edward Blakeway was joined at Morris Thursfield's old pottery by John Rose c.1780s (see above), and Benthall has suggested that he began the manufacture of china there (1955:162).

Blue Transfer Wares

Stephan, a Frenchman, had a small pottery at Jackfield where his son Peter Stephan produced "some strikingly good arabesque patterns in blue printing, marked with anchor and cable" (Jewitt 1883:180). He was also reputed to make blue Delft tiles, and early encaustic tiles. The site of the pottery is claimed to be that of Craven Dunnill.

Mocha Wares and Cream Wares

During the excavation of one of the Ashtree Pottery Kilns, located by Rimmell (1983), large quantities of Mocha ware sherds, Cream Ware sherds and wasters were discovered. On stratigraphic evidence the kiln was pre-1871, and although it has been suggested that the material - being mixed with Hawes & Denny tiles - was late, there is evidence that the kiln dates to the early 19th century. The manufacture of Mocha wares and Creamwares at Coalport dates to between 1796 and 1800 during Bradley's time there, and the similarity of the Jackfield wares to the Coalport material of prel820 has been commented upon (Edmundson 198*, Rimmell 1983:64). Cream ware wasters were found stratified beneath an ironworking floor of 1767 at Calcutts (Higgins 1985:179).



1. Earthenware jug. Turned decoration, yellow slipped body with brown streaked slip. JF83B.
2. Mochaware jug. Buff coloured with blue decoration. JF 82.
3. Coarse earthenware cup. Red slip.JF 83A.
4. Coarse earthenware cup. Cream slip, with red trailed decoration.JF83A.
5. Coarse earthenware pancheon. Internal black glaze, unglazed exterior. JF(2)84.
6. Coarse earthenware chamber pot, yellow with brown slip trailing. JF82.
7. Coarse earthenware posset pot, cream slip. JF83A.

Figure 29: Jackfield Earthenwares (illustrations courtesy IGMTAU).

Towner has suggested that the manufacture of creamware developed out of a tradition of white salt glazed stoneware manufacture, using the same materials fired at a lower temperature using a lead glaze by the 1740s (1978:20). This might well apply to the Gorge.

Victorian Earthenwares

Much more likely to be the staple production of the Jackfield pottery in the mid-nineteenth century were pale yellow coloured earthenwares, often with beaded decoration. Typical forms were large basins and pudding bowls. Wasters of such pieces have been found in the Salthouses area.

An inventory and valuation of moulds at the Jackfield Pottery in 1860 (SRO 1681 Box 189) indicates the forms which were in production - flower pots, soup tureens, dishes, jugs and teapots. The works (if they were the same) had considerably diminished since 1854, when Wootton leased the works. Then the moulds included jugs, oval bakers moulds, beaded oval moulds, round nappies moulds,mandrin jugs, gamblers, babes mugs, portland mugs, bottle moulds, coffee pot spouls and handles, and mignionette pot and stand mould (Appendix Two).

Other Wares

A sherd of red bodied sprigged earthenware, unglazed was donated to the Museum in 1982, from 133 Church Road, Jackfield (JF82). The ware resembles pottery made in Staffordshire, but the fact that it was unglazed indicates another possible local manufacture.

5.6 Pottery Technology

Again the majority of information for the understanding of ceramic technology comes from Stoke on Trent. The patterns there suggest the following technical innovations during the 18th century:

- the importation of white clay and flint for white stonewares by the 1730s
- the development of the hovel from perhaps 1718
- increasing use of indoor premises for drying, preparing clay etc
- better preparation of clay, such as sieving
- development of double firing from the 1730s

The buff clays of the Lower Coal measures were much exploited, and seem to have led to a distinctive local pattern of slipware. Such clays would explain the location of potteries making slip wares at Benthall, Ladywood and Coalmoor on the north side of the river. Red fabrics could have come from the Upper Coal Measure clays. A link between the fine red double fired Jackfield wares and the qualities of the roof tile clays might be explored.

Jackfield wares and cream wares were both double fired, whereas slip wares were not (Towner 1978, Celoria and Kelly 1973). This would make the latter less expensive, and might contribute to the observed distinction between the finer "tea" wares and the more common kitchen and dairy wares. What seem to be kiln hovels (as opposed to the earlier domed structures described by Plot) were shown on the **1728** map, indicating relatively early use of such structures. The "Pott-house" suggests a certain number of buildings for indoor processing of materials, although this is less clear at the "Mughouses".

Coal firing was in use at Stoke by c. 1690 (Celoria and Kelly 1973). Presumably coal was also used in the Gorge, although in 1788, William Greatbatch was experimenting in Broseley with a new type of kiln to fire enamel with coal (Keele Mss 14280-81).

5.7 The Markets for Jackfield Pottery

The quantity of brown and yellow wares and coarse black wares found in local gardens suggests that such pottery found a local market. Randall mentions the trade with Wales, and use of the term "Welsh " wares confirms this link. However, there is no doubt that there was a strong export market, especially to America, by the mid-eighteenth century. The River Severn link with Bristol was clearly important in establishing a potential export market for Jackfield pottery. Richard Simpson was exporting pottery to America before the outbreak of war there in 1776 (Randall 1877:29). Jewitt (1883:180) suggests that it was the yellow ware and the salt glazed ware with a pipeclay body, rather than the black decanters which were being sent to America.

Morris Thursfield must have attempted to re-establish this trade after the interruption of the war, and in fact died in Philadelphia where had taken a cargo of wares in 1783.

5.8 The working population

Census information for the nineteenth century suggests that by then, earthenware manufacture was not a major employer. By 1851 there were 20 people employed in the industry, against 87 in the brick and tile industry. Coalport China works continue to employ 85 Jackfield residents, many of whom lived in the area of the Tuckies and the Werps. It is noticeable that the children of China workers tended to work there also, and that the children of brick and tile makers similarly remained in their parents trade (McKelvey 1985, Rimmell 1983:25).

CHAPTER SIX: THE BRICK AND ROOF TILE INDUSTRIES OF JACKFIELD

6.1 Introduction

"Any cover is preferable, both in look and duration, to the common clay tiles of this county. Those of Jackfield indeed are durable, but all are ugly and require a sharp pitch or angle in the roof" (Plymley 1803:106).

For over 150 years, Broseley was famous for the manufacture of dark purple roofing tiles. The name "Broseley" became synonymous with a roof tile, and at one point manufacturers had considerable trouble with other areas claiming to produce "Broseleys". The secret of durability of Broseley tiles was held to be the deep clays, which could withstand great heat in the kiln, and burnt to a dark purple colour. In the late nineteenth century, the area had problems producing the red tiles then in vogue, but with the early 20th century revival of interest in hand made tiles, the Broseley product underwent a revival. Manufacture finally ceased in 1939.

Building evidence shows that bricks were manufactured in the parish from at least the early 17th century, although there is little documentation until the late 1700s. Throughout the 19th century, bricks were manufactured with tiles, and often bear the distinct impression of the tiles they were burnt with on their face. Broseley produced a range of ceramic products, but did not specialise in refractory goods as Benthall did. The church at Jackfield with its many different bricks, tiles and terracotta pieces today stands as a memorial to the skills of the Jackfield brick and tile makers.

Brick and tile making has had a profound effect upon the Jackfield landscape, where most of the works were. Tile burning using coal as fuel would have been a very smoky, dirty activity, and Jackfield cannot have been a particularly salubrious neighbourhood. Today vast dumps of waste tiles cover much of the Calcutts valley, and spill out over the river banks. Several of the factories were reused for other purposes, and the Coalford works has been built over with houses, but elsewhere there are still areas of waste and tile rubble remaining where factories once stood.

Very little material is available on the archaeology of 18th and 19th century brick and tilemaking. Building historians such as Lloyd lose interest in the 17th century, archaeologists much earlier. A series of treatises on manufacture (e.g. Dobson 1931, Builders Merchants Alliance 1927-8), mention early history, and modern techniques, and writers such as L.S.Harley (1974) gloss over the very important later changes. Hammond (1977) has begun to tackle the problem, and Cox's work in Bedfordshire is one of the few recent publications to tackle brickmaking into the 20th century.

Clays

The main types of clay worked at Jackfield were the surface glacial clays, and the deeper clays of the Hadley formation. It was the latter which were used in the manufacture of tiles. A good roofing tile clay should be sufficiently plastic to allow a thin slab to be produced, but also should not shrink or warp, so that an even product might be obtained. Colour was a matter of fashion - a bright red was favoured in the late 19th century, but by 1912 Searle praised the

YOU CAN'T WEAR 'EM OUT

It is said that the life of a 350-miles-an-hour aeroplane engine, run continuously at top speed, is a matter of hours, which makes the contrast with the 150-years-old engine shown herewith all the more striking.

Day in and day out, through all that length of time, it has jogged steadily on, hauling up 12-cwt. loads of red clay from a shaft over a hundred yards deep at the works of the Prestage and Broseley Tileries Co., Ltd. In its century and a half of sturdy service it must have lifted well over a million tons of Broseley clay, or an amount equal to a monument 100 yards wide, 100 yards long, and 100 yards high, and the only replacement that has been needed was a new piston rod, which was fitted about four years ago !

Our Hand-made Sand-faced Tiles, also our Machine-made and Pressed Tiles, are just like the old Engine—British made, and "you can't wear 'em out."

Prestage & Broseley Tileries Co., Ltd.

BROSELEY : SALOP

"Sovereign Broseley" and
"Broseley Tileries" Brands.

One of our Tiles made in 1832 which has been continuously on a roof until 1935

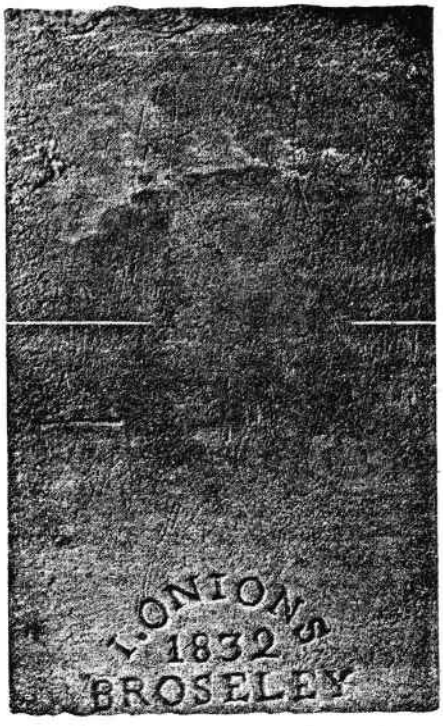


Figure 30: Advertisement, taken from "Shropshire, A beautiful English county", 1935.

Broseley clay for their, "variegated colouring in which the bright red tones are relieved by shades of blue and purple" (1912:226). The local clays were also famous for the amount of heat they could take in the kiln - producing a more durable tile.

The deep clays were extremely hard, and had to be mined by blasting. As a result, the clays also required long periods of weathering before they could be used in tilemaking. It was attempts to reduce the period of weathering that led to the production of an inferior product (see below). Clays were brought up from underground, rather than open cast, a technique which was much more common in other areas. This must have added to the cost of the production of Broseley tiles.

Up to three horizons of workable clays are found in the Upper Coal Measures, above the Main Sulphur Coal (Brown 1975). Such clays outcrop on the surface between the Jackfield and Jockey Bank faults, running south east from Ladywood, and in the Calcutts area. To the south, they and are found buried beneath the Coalport formation and only accessible through deep mining.

The different clays included:

Grey clay - makes a brick yellow with black spots at a low temperature, which depends in colour as the heat is increased. The clay contains little iron, but makes a good, hard grey brick.

Mottled Clay - this is the clay used for roofing tiles: it is rich in silica and alumina and low in iron and manganese. It has a dense texture, and keeps it shape in the kiln.

Red clay - mild, lots of peroxide, and used mainly for flooring tiles. This clay will not take great heat. It is the only local clay to burn very red, but it needs to be dried very slowly or it cracks. Products are very fine grained, and wear smooth. (BCW May 1894:30)

In addition there was a spread of surface boulder clay in the area of the Dunge, used by the Dunge Brickworks. Such clay was reckoned by other firms to be too porous for brickmaking.

Clays were presumably brought out with coal from the earliest attempts to mine, but clays are not specifically mentioned in mineral leases as a valuable resource on which royalties were paid until around the mid-19th century. Very often old coal shafts continued in operation as clay mines many years after the coal had been taken out. Presumably the earliest brickmakers used surface clays - bricks found on the surface at Caughley (where settlement has long since disappeared) contained many pebbles and inclusions which would not have occurred in the deeper clays. The earliest tiles too seem to be made of a soft red clay. The earliest mining of deep tile clays cannot be dated, but there does seem to be a link between this clay and the production of distinctive Broseley tiles for export by at least 1776.

6.2 The early industry

"A great number of blue tiles are also burnt here, and sent by the Severn to a distance." Arthur Young, 1776.

Building evidence indicates a local brick and tile industry in the late eighteenth century, with seventeenth century or earlier origins,

but unfortunately there is almost no documentation for this. Brick buildings survive in the Broseley area from at least 1618, and tile roofs from perhaps the late 17th century, reflecting a general move away from timber and stone construction. Building evidence suggests a growing demand for local brick and tile production in the last years of the eighteenth century, when large numbers of houses are built. Yet few of these early brick and tile makers can be identified.

There must have been a link between the early coal industry and the exploitation of brick a tile clays. Early brick kilns were usually located amongst coal workings (as at the Lloyds, Ironbridge) and in 1545 William Pinnock was granted "a house called a tylehouse near the coalpits" somewhere in Broseley (1224,3,192). Richard Beard in 1734 leased ,

"a messuage and a little pit or wasteland before the house (after the expiration of John Cromptons lease) with liberty to make brick on the premises for the use of the premises only" (SRO 1224/3/503).

The land was leased from Samuel Edwards, who held the Hollygreaves estate, and so may well be at or near the site of the Hollygrove Brick and Tileworks, reputed to be the earliest in the parish (VCHi:443).

William Davies, "Brick and tilemaker", leased a coalwork near the Red Church in 1814, with access to the weighing machine at the Calcutts, suggesting that he was sending coal away by river. In **1840**, Hezekiah Hartshorne still maintained a small brick kiln with a coalpit at Fishhouse (BY 16601).

Another industrial link was with the large ironworking concerns would have created a demand for their own bricks, and had access to clay through their coal making activities. John Onions, associated with the Broseley Tileries, was making iron at the Broseley Furnaces nearby and may have founded the works for his own purposes, and the Coalbrookdale and Horsehay companies were operating brickworks in the late eighteenth century for such purposes.

There is increasing evidence for established works in the late 18th century. Richard Perry was a brickmaker in 1775 (SRO 1681 Box 106), and at Cherry Tree Hill (not Dawley) land had been lately fenced in for a brickworks in 1761 at the site of the later Ladywood works (SRO 1359). The Hollygrove works were certainly operating by 1792, and the Coalford works soon after (VCHi:443).

Individuals continued to operate isolated kilns perhaps for local use. In 1800 Potts had a garden and brick kiln at the Calcutts (c1800 map), and there are various "brick kiln leasows" scattered about the parish. As late as **1840** there was a kiln in High Street Broseley, and another on Underhill street. presumably catering for the local building trade.

6.21 Products

The earliest bricks in the parish are generally small and red in colour. Such bricks are often rubbed, and occasionally cut into decorative patterns (eg. the Old Hall, Willey). Diaper pattern in blue bricks can be seen at Linley Hall. The following technological characteristics might be suggested:

* Hand mixing - brick sections often display folded white clay

partings in an otherwise red fabric suggesting that little alteration has taken place to the original state of the clay.
* Inclusions - pebbles are sometimes found (e.g. surface finds at Caughley)
* Red colour - presumably produced by burning a red clay at a low temperature in an oxidising atmosphere. The red has probably been selected for amongst the range of colours produce. The yellow patches and darker colouring typical of the 19th century do not appear. This might indicate firing in an open clamp, using wood rather than coal as a fuel.
* Scars - many early bricks have a raised scar along the side, created when bricks were stacked on edge on top of each other. for drying. Implies a fairly wet clay mixture.
* Tile impressions are very rare on such bricks

Roof tiles were standardised by at least the 14th century, and the size seem to have persisted into modern times. Occasional finds in the Gorge (e.g. the Salthouses area) suggest that some of the early or pre-nineteenth century roof tile may have had a single nib - perhaps triangular in shape. The nib is often quite thick, and very obviously hand made. The tile is frequently warped, and slightly thicker than later tiles. Otherwise there is little to distinguish the nineteenth century tile from its predecessors.

6.22 The introduction of ?coal firing

Unless the fuel is incorporated in the fabric of the bricks, there are limits to clamp firing. The temperature is low, and the number of bricks which can be fired at once is limited. At some point in the late 18th century, a change took place in brick technology. Bricks display the following characteristics:

* Darker in colour, and often variegated, with patches of yellow, dark brown
* Inclusions such as ironstone or coal tend to burn out, indicating a higher firing temperature
* Lateral scars are less common
* Roof tile impressions are very common
* Bricks become much harder

These changes indicate that higher firing temperatures were available. Two causes are implied - the use of coal in firing, and the use of fixed kilns, in which a reducing atmosphere could be obtained. The lack of scars imply a drier mixture, perhaps relating to the introduction of pug mills to mix the clay.

6.3 Brick and Tilemaking 1800 to c1840

At least three of the major works in the parish were established by 1800; by **1840** there were another four. Thus well before the construction of the Severn Valley Railway, which brought better access to markets, there was already a thriving brick and tile industry. The export of roof tiles must have been an important element in the rapid growth of the industry. Roof tiles were already established as a specialist Broseley product; the factories were located away from Broseley, the centre of population and so were unlikely to have been supplying a purely local market. They were near clay sources, but perhaps more significantly adjacent to the river, with easy access to ports on the Severn. Tiles were perhaps more profitable than bricks;

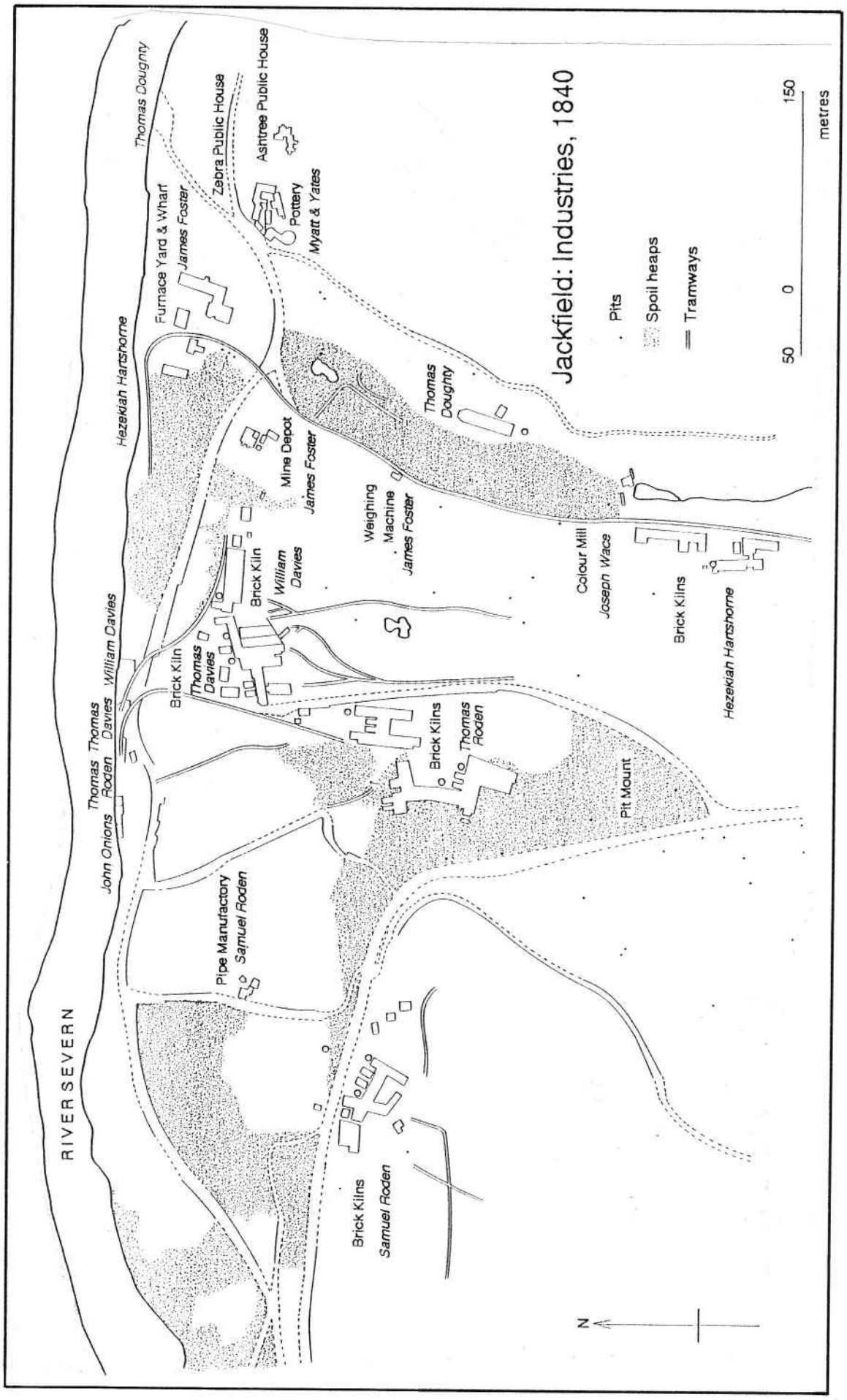


Figure 31: Jackfield - industries in 1840, taken from Tithe Map.

the Brick Tax was in force until 1850, whereas roof tiles and drains were exempted in 1833 and 1839 respectively.

6.31 Brick and Tile Technology to 1838

Mechanisation was only beginning to be introduced to the brick and tile industry up to 1850, and there were still doubts as to its efficacy (Dobson 1850:32). There is little direct evidence for the processes in use in Shropshire, but there must have been similarities with those of Staffordshire as described by Dobson.

Brick making was still seasonal, with clay left to weather over winter and brickmaking beginning in about April. Early technology consisted of little more than a pug mill (either horse or machine driven) would have been used to break up the clay and to temper it. Patent brick making presses were available by 1850, as was Prossers dry pressed process, but certainly there is little evidence for the use of machine made bricks locally. Presses were common in the mass production of bricks for railways, but the railways came late to the area. Bricks were slop moulded, dried on first the floor and then in hacks for one to three weeks, and then fired in circular or rectangular intermittent kilns. A hand moulder could produce about 10,000 bricks per week

Tile making differed slightly from brickmaking in that the clay had to be of a slightly stiffer consistency for moulding. In London in the 1850s, the pug mill for tiles differed from that for bricks (Dobson 1850ii:53), in that it tapered at both ends, had better knives, and the clay was ejected from the bottom. The mould was dusted with coal dust, the clay thrown in, and the excess trimmed with a strike. Nibs were either moulded, and then turned up by the assistant, or applied by hand by the assistant later. Tiles were left for about 4 hours before being either walled up to dry, or curved on a "horse" into ridges or valleys. Tiles were always dried under cover.

The practice in Staffordshire was to use a circular kiln, with some 2000 bricks laid in the bottom, 7000 tiles over these with the remaining spaces filled with bricks. A kiln might be burned once a week, using about four tons of coal were used in firing the kiln. Thus a rough output of about 7000 tiles per week per kiln might be estimated.

6.32 The Jackfield Works

On plan form, the works at Jackfield in **1840** can be divided into three groups. The small kiln associated with a coal mine such as that at Fishhouse colliery, operated by Hezekiah Hartshorne, or in an area of local building, such as Gough's kiln on King St; the medium works, consisting of one or perhaps two sheds, a circular kiln, and perhaps an engine house, such as the Dunge, the Tuckies or William Davies works, and finally the larger works.

Ladywood, Coalford, Hollygrove and Broseley tileries were clearly large modern works, with a fairly heavy investment in buildings. They are similar in layout suggesting either that they were new or as in the case of Hollygrove, had been recently remodelled. There were several large sheds used for clay preparation and moulding, and presumably drying, with several rectangular and one or two circular kilns on the down hill side of the works.

THE ROYAL AGRICULTURAL SHOW, CAMBRIDGE.

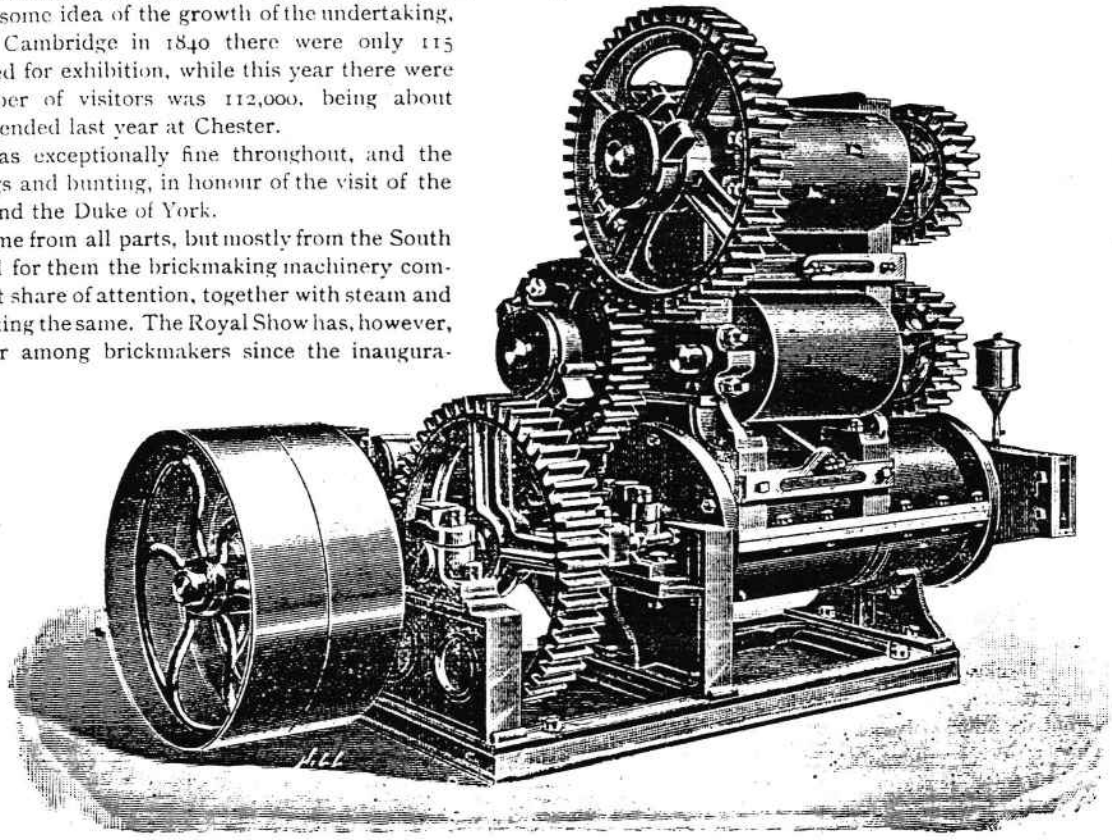
THE fifty-fifth annual meeting of the Royal Agricultural Society of England opened on Saturday, June 23rd, at Cambridge.

It is now 40 years since the show was held in the same town, and to give some idea of the growth of the undertaking, we find that at Cambridge in 1840 there were only 115 implements entered for exhibition, while this year there were 6,031. The number of visitors was 112,000, being about 4,000 less than attended last year at Chester.

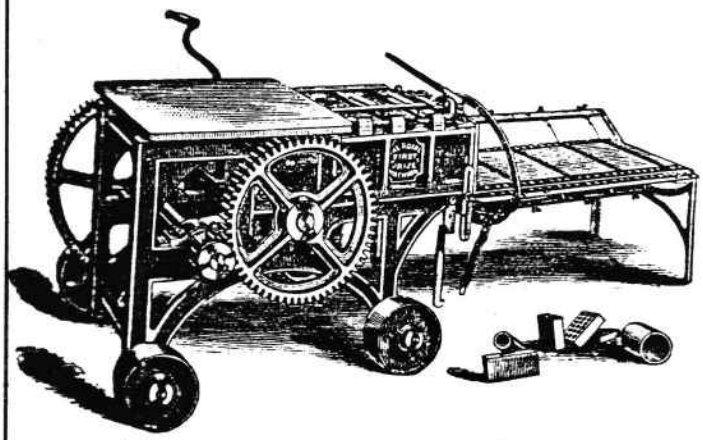
The weather was exceptionally fine throughout, and the town gay with flags and bunting, in honour of the visit of the Prince of Wales and the Duke of York.

Brickmakers came from all parts, but mostly from the South and Midlands, and for them the brickmaking machinery commanded the largest share of attention, together with steam and oil engines for working the same. The Royal Show has, however, rapidly lost favour among brickmakers since the inauguration of the Building Exhibition in London last year, where were assembled the largest and most representative collection of brickmakers that has ever been got together. Next year, the attractions will be even greater, and the Show will doubtless be one of the finest exhibitions of clay productions and appliances that has been held in this country.

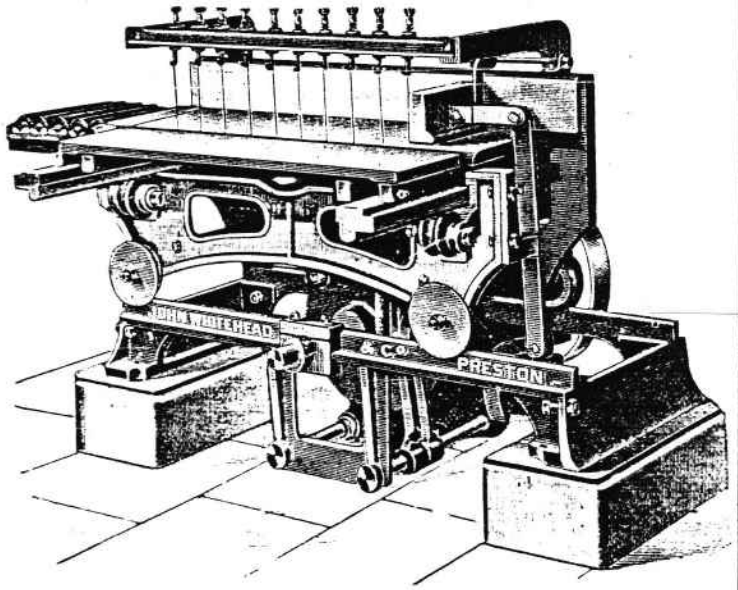
Messrs. John Whitehead & Co., Albert Works, Preston, Lancs., had a good display of their specialties, which have gained for



J. WHITEHEAD & CO.'S COMBINED THREE-PROCESS MACHINE.



J. WHITEHEAD & CO.'S "PRIZE" PIPE, TILE, AND BRICK MACHINE, NO. 1.



J. WHITEHEAD & CO.'S AUTOMATIC BRICK CUTTING-OFF TABLE.

Figure 32: Brick and roof tile machinery, 1894.

Each works was by, or on a road leading to the river, and many had associated tramways (**1846**). The exception were the works which were to become the Broseley Tileries and the Dunge Brickworks, which were located close to Broseley on the Bridgnorth road.

6.33 Products

The Jackfield works of **1840** were simply labelled as "Brick Kilns", but are almost certainly making roofing tiles as well. A further argument for the predominance of tiles at Jackfield is the cost of transport. Dobson suggests that the transport bricks more than 60 miles from source by railway, almost doubled their price (1850:112). No railway transport was available locally, and although it was clearly used, navigation on the Severn was becoming increasingly difficult. The number of works, their similarity in layout, and a minimum output of 100,000 tiles per week (c.15kilns, 7000 per week), suggests that there must have been at least a regional market for Broseley tiles before the coming of the railway.

Tile making was often accompanied by the production of drain pipes from the middle of the century, as the processes were very similar. The same machine with different die heads (such as the Whiteheads No 1) might extrude both and was available from about 1850.

6.34 Brick and Tile manufacturers

Brick and tile making was very much a family operation in the early nineteenth century, with the same surnames occurring at different works. Occasionally brick makers were associated with other activities (eg James Foster and John Onions who were ironmakers, or Hezekiah Hartshorne who operated a brickworks with a coal mine, or Samuel Roden who did a variety of things), but brick and tile making seems to have become a specialist activity by the 1820s. The Doughtys, the Davies', the Davis' and later in the century the Prestages continue long and specialised traditions, rarely branching out into other industries (see Appendix One).

47 people described themselves as Brick or Tile makers in the census of 1841, a figure which might not have included labourers, or the many children who worked in the brickworks.

The organisation of the brickworks was very casual, and most relied on independent contractors. A brickmoulder would bring his own children to help, and be responsible for paying them, and his pay depended upon the amount of bricks or tiles he produced. At Mr Morgans Yard, the fireman contracted with the master to get the bricks burnt, and thus was presumably held responsible for failures (Children's Employment Commission 1862). This confirms that before the 1870s, the works were not highly mechanised or particularly well organised.

6.4 The Jackfield Tile Boom 1840-1889

If the brick and roof tile industry was well established by 1840, the next 60 years saw an extraordinary increase in the scale of production, and the variety of products. One factor in this was the increasing mechanisation of works. New processes, and new demands led to large scale production of bright red machine made tiles. Another factor in the expansion of the industry was the construction of the

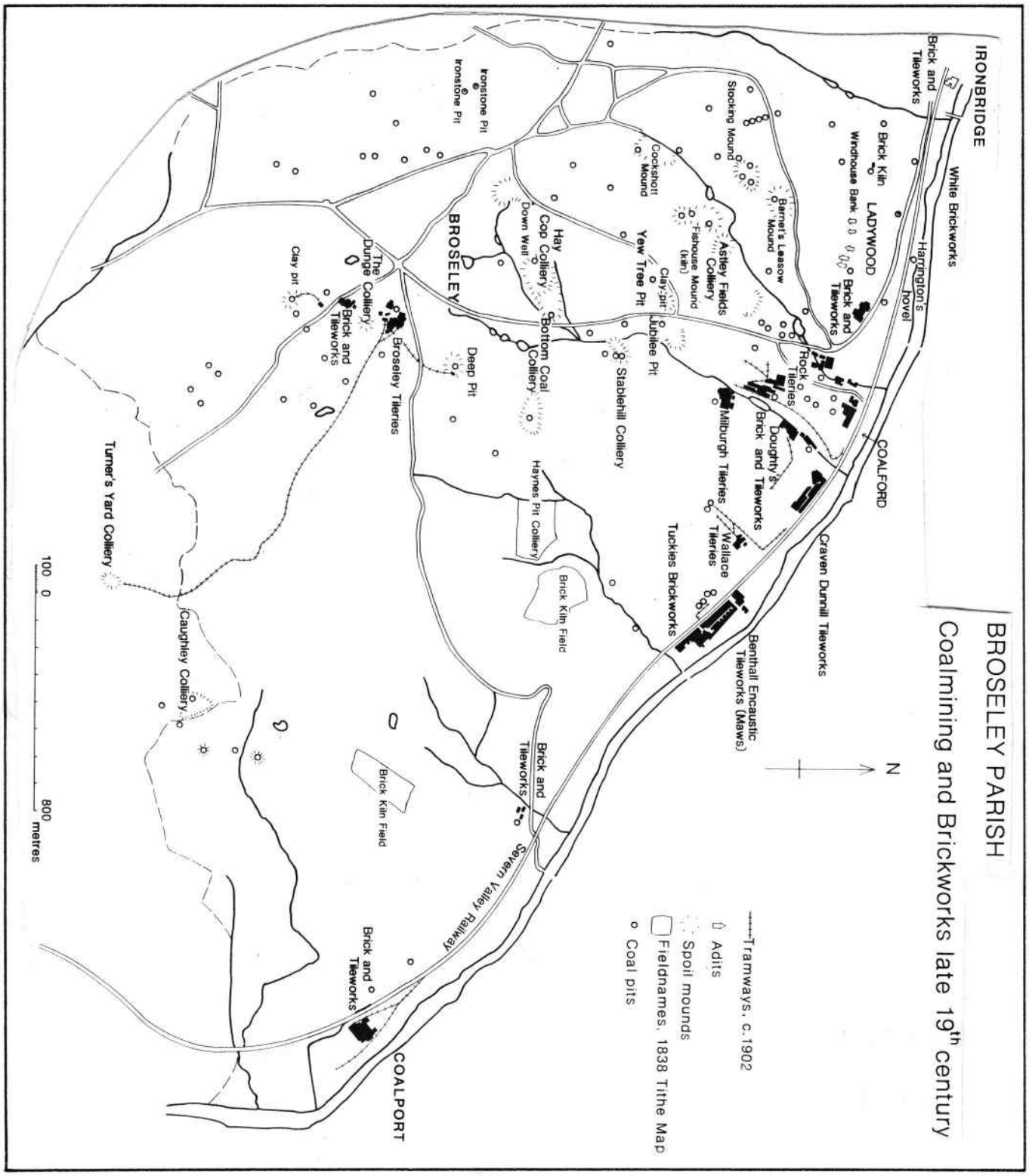


Figure 33: Broseley Parish - coalmining and brickworks of the late nineteenth century.

Severn Valley Railway. The existing industry was in a good position to respond to the demands of a new market created by the railway network.

Ironically it may have been some of the technological 'advances' of the 1870s which led to a general loss of confidence in the durability of Broseley roof tiles at the end of the century. There was a general trade depression, whose effects were beginning to be felt in the 1890s.

A major selling point was the clay, brought up from a great depth, which could stand much greater heat than that of other areas, producing a stronger tile. A Broseley was claimed to last for over a century, and stand "any weather for any time" (BCW Nov 1908). The heat of the kilns in Broseley would melt the tiles burnt in the kilns in the south of England.

6.41 Technology

There were two phases of technological change in this period - the increasing mechanisation of the plastic process in the 1870s, and the introduction of the semi-plastic process in the 1890s.

Machinery for rolling, pugging, bat making and pressing seems to have been introduced in the 1870s. Weathered clay was ground, carried by canvas elevator to a soaking pan, and made into a bed. From there it passed through two horizontal pugmills, the second of which was the bat machine. Bats were dusted with coke dust, and conveyed to the pressing shed. From the pressing shed they were taken to the drying shed, and from there to the kiln. (BCW 1894). Proper tile kilns were rectangular down draft kilns of 10 fire holes (BCW Feb 1897), holding about 65000 tiles and 2500 bricks, and taking about two weeks to fire.

The typical Broseley process involved a heavy investment in buildings, with drying stoves and pressing sheds, both of which are described as peculiar in construction to the district. An example of such a drying stove still stands at Blists Hill today - the only one remaining in the district. An observer commented on the level of investment in buildings in the Jackfield area, although by 1894, the 'new' (semi plastic) process, involving drier clay, more machinery and fewer buildings was being advocated.

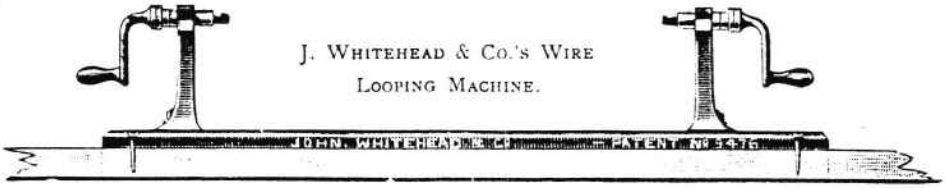
Ground clay was placed in a revolving plan, conveyed to a mixer, ground, pugged, mixed and passed into a bat machine. The output was about 20,000 bats per day (similar to the older process). Tiles were then pressed, and allowed to dry before being fired. The advantage was "more rapid manufacture at less cost, better goods, less waste, uniformity in colour, shape and quality". The process took half the time, and there was a saving on a steam bat machine, fewer pressing stoves and no carriages, tramways and rails.

The semi-plastic process seems to have been adopted in the 1890s, at the Wallace works, by the Madeley Wood Co (BCW 1984:supplement xii), and by several other firms advertising "new" or patent machinery at this time. Haughton quoted "new plant which has been much used in this as well as other neighbourhoods " which effected a saving of some 10 or 15%" (SRO 1242 Box xi.3)

Other innovations included the first use of the tunnel drier for

them no less than fourteen prizes, at different times, from the Royal Agricultural Society.

Their Combined Three-Process Brick-Making Machine was the centre of attraction, forming as it does a reliable, strong, and compact machine. This is the same as was shown at the Building Exhibition in London, and will be found fully described in our April issue.



J. WHITEHEAD & CO.'S WIRE LOOPING MACHINE.

The "Prize" Pipe, Tile and Brick Machine, No. 1, is for hand power, making all sorts of tiles and bricks, also drainage pipes, with great rapidity. This machine was awarded silver medals at the Yorks Meeting, 1848, and Gloucester, 1853.

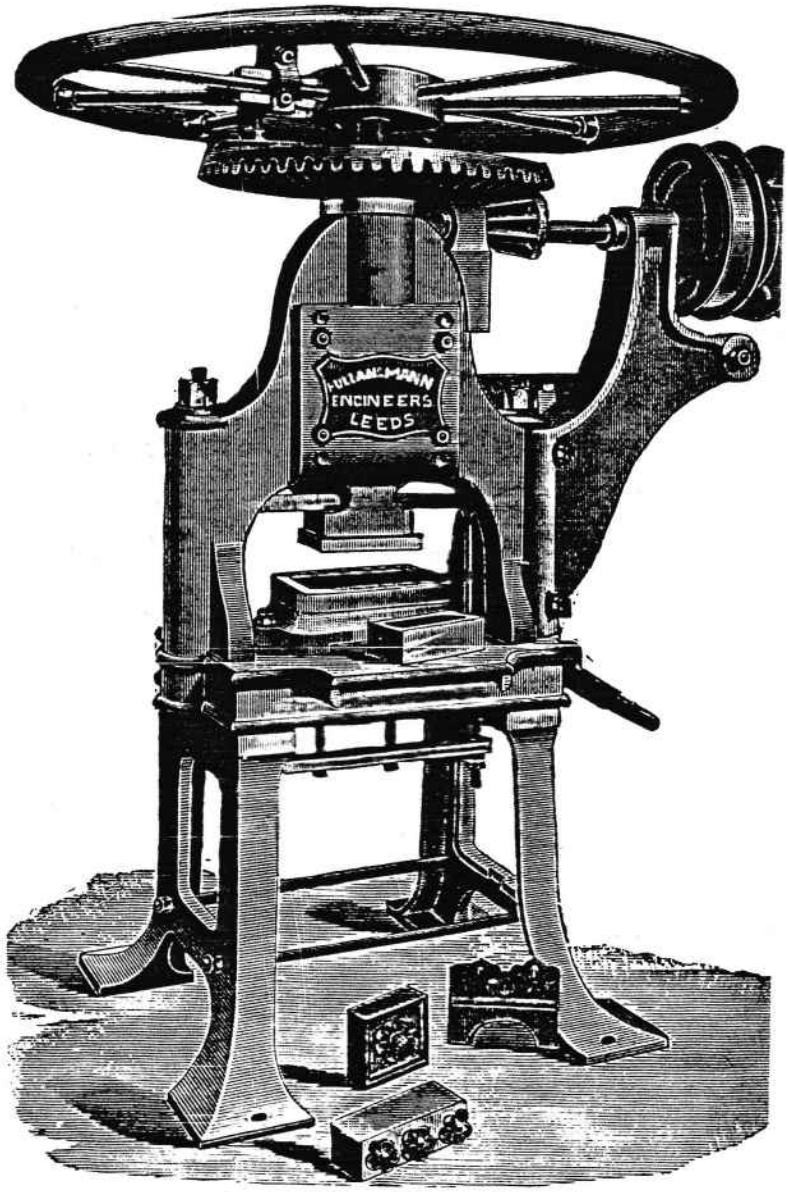
The Improved "Lever" Hand Press for bricks and paving tiles, with patent adjustable weight-lever attachment, is a very handy, strong and durable press, easily worked, rapid, and at the same time exerting great pressure. The motor parts are all of hammered iron. This press can be used for a large variety of goods of any thickness.

As a labour-saving appliance, the Automatic Brick Cutting-off Table deserves notice. It is put into operation by the stream of clay, cutting off the bricks and delivering them on to the boards in a most efficient manner, only one attendant being required. While the table is substantial, the mechanism is simple, and the working parts, being few, are not likely to get out of order.

What is known as the "Brictile" Hand Machine is an extremely simple yet effective appliance for making wire loops for brick-cutting table use. The wires are made rapidly and with ease, while the twist at the ends is perfectly secure, and neat in appearance. With a very small amount of practice, the user of one of these appliances can turn out finished wires at a speed really astonishing to anybody not before acquainted with their use. The price is certainly not prohibitive, and it is the kind of thing that all makers of wire-cut bricks should have by them.

Messrs. Pullan & Mann, Cambrian Works, Elland Road, Leeds, showed at their stand, as a new implement, a screw press for bricks and tiles worked by steam power.

The "Titley Screw Press" is well known, but it has hitherto been worked entirely by hand, and the application of power is a distinct advance. Its capability of pres high-class goods, plain, glazed and ornamental tiles and te cotta, is as successful as by the hand process, if not enhan The press is too well-known to our readers to need des tion, but we may state that the additional parts for p driving are very few and simple, consisting of two brac bolted to headstock, carrying horizontal shaft, with clutch, two belt pulleys and bevel pinion, bevel wheel centre bush, driving pin and bracket for fly-wheel (or w ted lever), starting lever gear, and small brake.



PULLAN & MANN'S STEAM SCREW PRESS.

Figure 34: Brick and tile making machinery, 1894.

roofing tiles, installed by D.L. Prestage in 1900, and one of the earliest uses of gas as motive power in a tileworks (see Appendix One).

6.42 Products

Directories and advertisements in building magazines show that by about 1850 there was a standard range of local products. Most works produced plain and ornamental pressed roof tiles, ridge hip and valley tiles in shades or red and brindled. Some continued to produce hand made tiles, others drain pipes, elaborate finials and garden borders.

The red clays were used for floor tiles (quarries) in various sizes and occasionally malthouse tiles. Such tiles were less hard than roof tiles, but would wear very smooth with use. A machine such as the Whiteheads no 1 machine as used at Hollygrove would have produced a variety of goods through different die heads.

There was obviously a local and regional market for Broseley products, reflected in the predominance of brick and tile as a building material in the area. Firms advertised large orders for the rest of the country (e.g. the Isle of Wight), but the region surrounding the Gorge, and stretching from Bridgnorth to Shrewsbury seems to be a more likely destination for most tiles. Certainly roof tiles with Broseley trademarks appear on buildings in Shrewsbury.

The export trade was important to Broseley. Prestages exported to Russia, New Zealand, South and West Africa and the Gold Coast. In 1894, Exleys had just filled an order for the young King Alfonso of Spain (see Appendix One).

6.5 The crisis at the end of the century

By 1889, the industry was just beginning to come under pressure from production in other areas and the slate industry. The Broseley Brick and Tile manufacturers Association was (re)formed to protect the name Broseley (now applied almost universally to any roofing tile), and for the first time stamps and brand names began to appear. Local prices were fixed, and manufacturers met regularly.

Although in 1892, Jackfield was well known as the chief centre of the tile industry (BCW June 1892), towards the end of the century demand began to fall off. By 1903 (BCW Jan 1903:332) trade was far from satisfactory, and supply exceeded demand, and by 1911 trade was very poor. "There has been a further decrease in the sale of the best goods, and most of the enquiries and orders have been for inferior quality goods" (BCW Jan 1912:233). To some extent the depression in trade was national. Reports from other districts in 1911 (BCW) show equally poor trade figures. But there were several factors which may have contributed specifically to problems in the Broseley area.

1. The demand for red tiles

Some attributed the depression to the desire for red tiles. Architectural trends of the late nineteenth century increasingly favoured the red tile. As machine made bricks with bright finishes became more popular, so the demand for a roof which looked less dowdy grew. Broseley tiles were normally brindled, and the only red tiles produced were in fact the underfired tiles at the bottom of the kiln

IMPORTANT NOTICE.

BROSELEY TILES.

IN consequence of numerous persons representing themselves as Manufacturers of the "Celebrated Broseley Roofing Tiles," we, the undersigned Firms, beg to inform the Public that we are the only Manufacturers of these Tiles at "Broseley, Shropshire"—the seam of clay from which they are made being only found at Broseley, from which place they derive their name.

BROSELEY TILERIES CO., LTD.	JONES, C. R., & SONS.
COALBROOKDALE CO., LTD.	JONES, W. & P.
DAVIS, G., SEN.	LEGGE, G., & SON.
DOUGHTY, JOHN, & SON.	MAW & CO., LTD.
EXLEY, W., & SONS.	MADELEY WOOD CO.
HAUGHTON, R. D.	PRESTAGE & CO.

Figure 35: Advertisement for Broseley Tile Manufacturers Society, taken from Architects Compendium and Catalogue, 1901.

sold as seconds. Such tiles cracked easily, and may have given the trade a bad name. The characteristics of a good tile were,

"density, combined with toughness and incipient vitrifaction (sic), the last-named quality producing, to some extent, that pleasing tint familiarly known as "bloom", one of the peculiarities of the Broseley tiles." (BCW Nov 1896)

The author suggested that the bright red, colour should be avoided. But nonetheless, red tiles were being sold from Broseley, and hints in the British Clayworker suggest that there were increasing numbers of failures in tile roofs. D.L. Prestage and others attributed this to the sale of inferior goods at cheaper prices, which may have given the Broseley product a bad name.

2. High capital investment in specialised plant

Faced with a falling demand for tiles, works were unable to diversify from tile production, into bricks as

"the brick trade was very limited in Broseley, chiefly on account of the works being laid out especially for the manufacture of roofing tiles: it is found that the one trade clashes with the other, and besides, most of the manufacturers are a distance from the station, thereby rendering a heavy tariff on the heavy goods" (BCW).

Despite Prestage's claims, it may have been that the works were in fact producing a large number of inferior goods - if nothing the walls of tiles around the district confirm this. Many of these were sold, giving the local product a bad name.

3. Technical Problems

The cause of these inferior tiles was not discovered until 1933 when Mr Jones took over the increasingly less prosperous Ladywood works (Jones nd). He found that almost a fifth of tiles made were never fired as a result of cracks in the surface. He was forced to close down the roofing tile department in 1936 but as an experiment placed one last batch of tiles in the dark for many days. The resulting tiles when fired proved perfectly good. He suggested that it was bacteria in the clay had been causing cracks. This may have been the root of the problem faced by Mr Haughton of Hollygrove Tileries. Despite new clay sources, in 1897 he complained that his tiles continued to crack and that his loss was very heavy (SRO 1242 Box xi,3). Bacteria may have bedevilled the works since the introduction of the semi plastic process, and may account for the increasing distrust of the Broseley product.

Alternatively works may have been speeding up the traditionally long drying process needed for the red clays, thus causing cracks.

4. New Roofing materials

Although competition with slate may have been another factor in the demise of the Broseley tile, the product seems to have survived the initial slate boom with the coming of the railway. "Tiles vs slates" was a popular debate, reaching the columns of the Times. In reply, D.L. Prestage championed tiles, quoting the durability if tiles, the quality of tile and the better appearance of tile. Slate was more

expensive (by 2s 6d per square), more difficult to repair, less insulating, the danger of frost damage.

Tile is a predominant material in the local area. In Coalbrookdale, Ironbridge, Broseley and Bridgnorth only the occasional building has a slate roof. Oakengates on the Shropshire Union railway is a notable exception in having many slate roofs (W.H.Williams)

It is much more likely to have been the availability of other forms of roofing (such as asbestos tiles) which affected the market for Broseleys. It is notable that the works never diversified into the other varieties of tiles beginning to come on the market, such as interlocking roofing tiles. Again it may have been the demand for red products which proved insurmountable.

6.6 The Handmade Tile Revival

There was one last hope for the Broseley tile industry - the revival of the hand made tile, in response to changing architectural fashions in the wake of the Arts and Crafts movement. By 1908 at least, the hand made, sand faced tile was increasing in popularity, "giving an artistic appearance ... to old English manor houses and country dwellings" (BCW 1908:221). Prestages began making hand made tiles again in about 1909, as did the Madeley Wood Company, Legges and Doughtys. Elaborate colour advertisements were taken out in trade journals publicising advertise their wares. An alternative to sand facing was the antique finish, produced by surfacing the face of the tiles with manganese and burning in, or dipping in a stain.

Although bricks are an important local product, the roofing tile industry is very much the mainstay of the clay industries in the Jackfield area. There must have been a steady expansion of the industry in the late 18th and early 19th centuries, in response to a local industrial and agricultural building boom. The large number of works present by 1840 were clearly able to respond to the arrival of the railway in 1862 by creating a national and even international market for the "Broseley". Mechanisation in the 1870s improved efficiency and helped the industry maintain its lead, but by the 1890s the industry was beginning to fail. The demand for red tiles, the incipient problems with the semi-plastic process and competition with new materials meant that few industries survived the labour shortages of the first world war. Those that did had a brief success with a specialist hand made product, but they too failed in the thirties.

6.7 The Encaustic Tile Industry

By 1883, Jackfield was the site of two major manufactories of encaustic tiles - Maws (at one time the largest in the world) and Craven Dunnill. The promotion of their products, through exhibitions and international sales and the acclaim they were given by arbiters of Victorian taste must have affected the image of Jackfield as a community. Opening the new Craven Dunnill factory, H.P. Dunnill recounted his thoughts on passing through Jackfield nine years earlier, "Heaven preserve me from having to live at such a forsaken place as that ", and hoped that Jackfield would become one of the most important seats of tile manufacture in the country (IWJ, 1874).

The demand for tiles, both decorative and plain, increased steadily

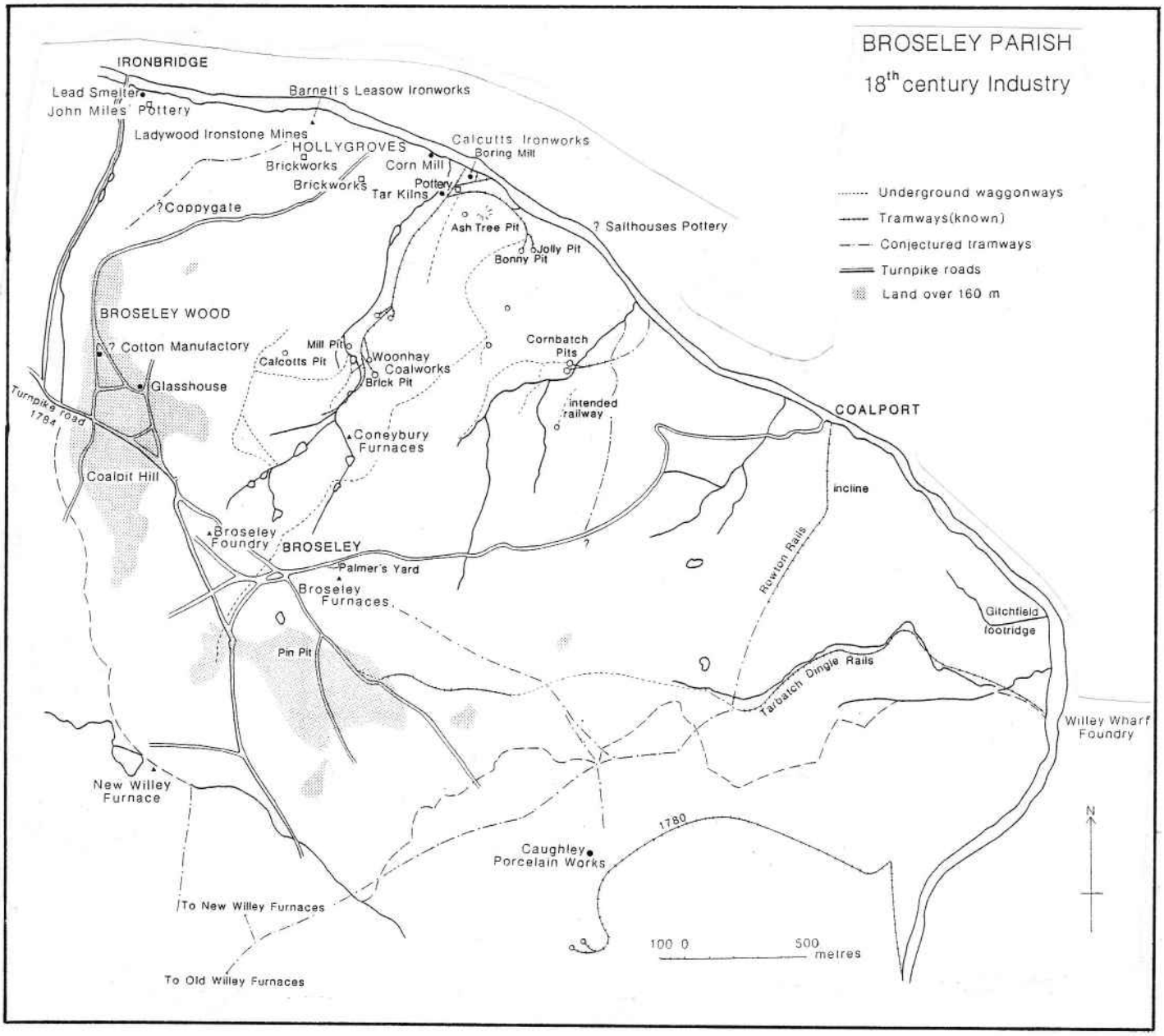


Figure 37: Broseley Parish - eighteenth century industries.

through the nineteenth century. Initially confined to the wealthy, by the 1860s the fashion had spread to more modest houses. A massive programme of church building and restoration created a demand for tiles to replace (and often copy) worn medieval tile pavements, and tiles were also to be found in public buildings and lunatic asylums in Britain, and abroad (Herbert 1979:146-7). Demand peaked in the 1870s and 80s but by 1898, "The Builder" was recommending the new interlocking rubber floor tiles from America as being lighter, easier to clean, simpler to lay and having a good range of colours (Barnard 1979:35).

Early developments originated with Herbert Minton, in Stoke, but later firms such as Maws, responded to growing demand through technical changes in manufacture. Improvements in the two principal processes - the dust pressed and plastic clay methods, were accompanied by improvements in the range of colours available and the variety of finishes. A dramatic increase in the rate of production came from the application of steam, and later by the design of works to facilitate the movement of clay and goods around the site.

McKelvey (1985) has discussed the impact of the construction of the large tileworks on the population of Jackfield. The 1881 census distinguished encaustic tileworks from the manufacture of earthenware (roof?) tiles, and mentions the following occupations in Jackfield: encaustic tile maker, tile presser, repairer of colours at earthenware works, tile moulder, encaustic tile clay mixer, and die fitter at encaustic tile works. This reflects the range of specialisation in skills. Maws still employed 200 people in the area in 1962.

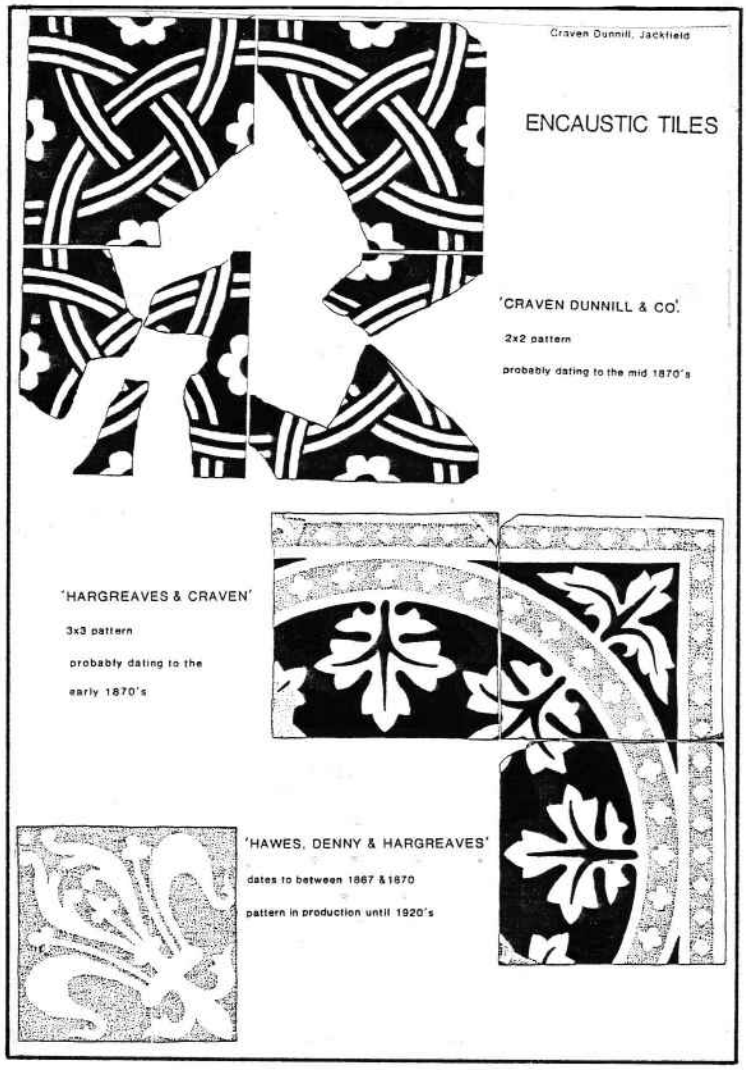
It has been suggested that blue printed "Delft" tiles, fashionable in the second half of the 18th century, were manufactured at Jackfield (Jewitt 1878, Randall 1877), but as yet no evidence has been found.

The archaeology of neither Craven Dunnill nor Maws is fully understood. Excellent aerial photographs of both survive, giving some indication of the processes which might form the basis of future work. It is vital that both works - and in particular Craven Dunnill which is the more complete - be fully recorded archaeologically, and the evidence reconciled with the documented descriptions of the works. Although purpose built as complete tile works, both factories show considerable evidence for change and alteration, even during the tile working phase.

Although clays were increasingly imported, the availability of the soft red clays locally seems to have been a relevant factor in the location of both Craven Dunnill and the Jackfield Maws factory.

6.71 Exley's Tileries

The first encaustic tiles in the district were made at Exleys roof tile plant between c. 1835-45. Peter Stephan, a Coalport china modeller, supervised their production, but Mintons of Stoke threatened legal action, and production ceased (VCH draft). The tiles were marked with an anchor, and Stephan's name. Randall suggests that the first designs were, "naturally crude, quaint and spiritless, and altogether wanting in those nicer distinctions and qualities, which not being perceived in the mind of the producer, could not be wrought by the hand " (1879:135).



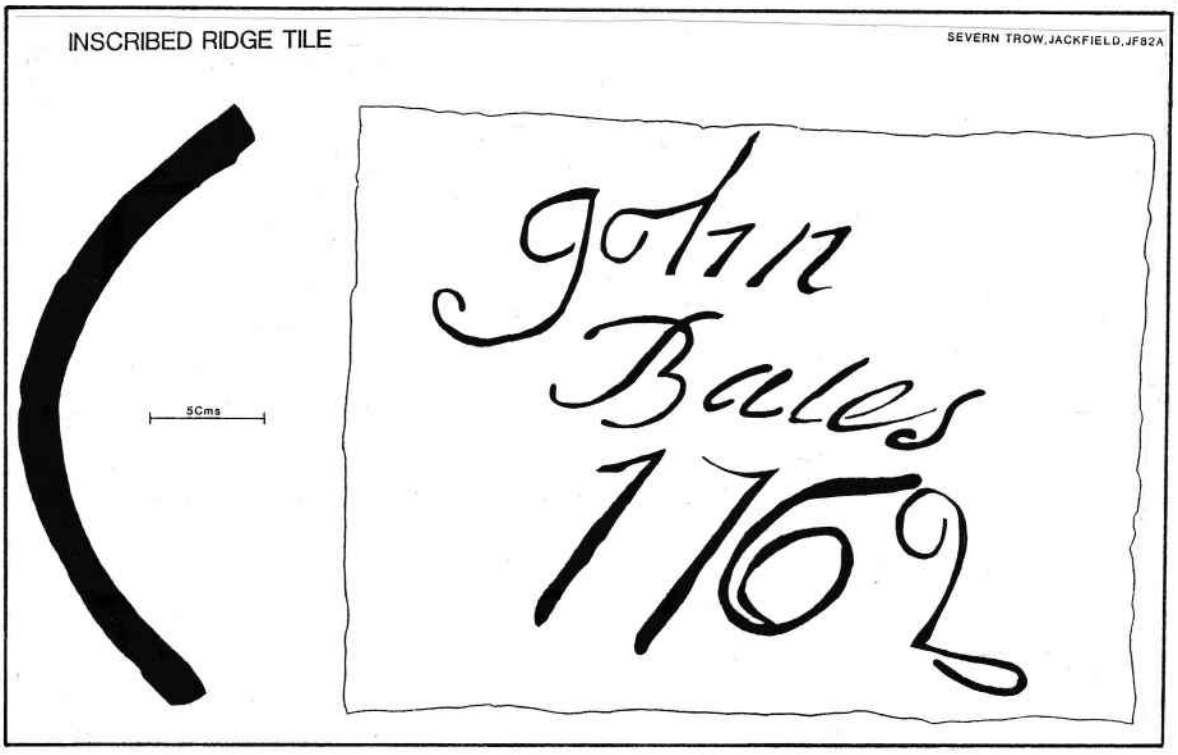


Figure 35: (above) Encaustic Tiles from Jackfield (courtesy Mary Macleod, IGMTAU)

(below) Inscribed ridge tile found at the Severn Trow JF82A (courtesy of IGMTAU)

6.72 Broseley Tileries

Although predominantly a manufacturer of roof tiles, Broseley Tileries did make encaustic and geometrical glazed and unglazed tiles, prior to 1877 under the management of P.J. Thorn. Encaustic tiles made by the company were still advertised in 1901 (Architect's Compendium). The works produced the tile floor for the Royal Academy, Burlington House, the Home and Colonial Offices in Parliament Street, and the New Law Offices, Lincolns Inn, as well as church pavements, halls, vestibules and corridors (Randall 1879:147). (See Appendix One). In 1879 the works were in the process of expanding and improving.

6.73 Hopkins & Co

In 1879, this firm had a tile and terra cotta works in Jackfield, which continued in operation until at least 1900. The location of these works is not known.

6.74 Craven Dunnill

Historical Background

Certainly the Jackfield Encaustic Tile Works was in existence by 1867 on the site of an old pottery, as the proprietors, Hawse and Denny, paid rent and royalty on clays to Lord Forester (SRO 1681 Box 189). Hargreaves replaced Denny in the partnership, and by 1870 Hargreaves and Craven were making geometric tiles by the clay dust process, and encaustic tiles from plastic clay (Jewitt 1883:171). Two colour encaustic tiles in patterns of 4 and 8 have been found from these partnerships in excavations by IGMTAU. Earthenware potters were still to be found in the area in 1871, suggesting that the firm may have continued to make pottery.

The next year, the limited liability company of Craven Dunnill was formed, with seven shareholders to rebuild the existing pottery with the idea of expanding the manufacture of tiles. Four acres of ground were leased near the old works alongside the newly opened Severn Valley Railway, and a new factory built, designed by the architect Charles Lynam (Kay 1988). The old works were then demolished, and warehouses, show room office and entrance lodge erected on the site. The opening party was in 1874, and for a short time the firm operated a profit sharing scheme with its workers.

Tile manufacture continued until the middle of this century. At some point the brass founder and manufacturer of brick and tile machines W.H.Smith occupied at least part of the site. In 1952 Marshall Osborne, a firm of precision engineers were in the works, a concern which closed in 1982. In 1983 the Ironbridge Gorge Museums Trust bought the site which now forms part of the Museums. The Craven Dunnill Company still manufacture and distribute tiles in Bridgnorth.

Products

Craven Dunnill were famous for their medieval type encaustic tiles, known as "ancients". Buff and red tiles were used by the architect Gilbert Scott at Chester Cathedral. Plain and coloured geometric tiles - more popular for domestic use - were manufactures, as well as a very hard buff tile. Patent mosaic tiles, and true mosaics were another product, but the factory was less famous for its painted and

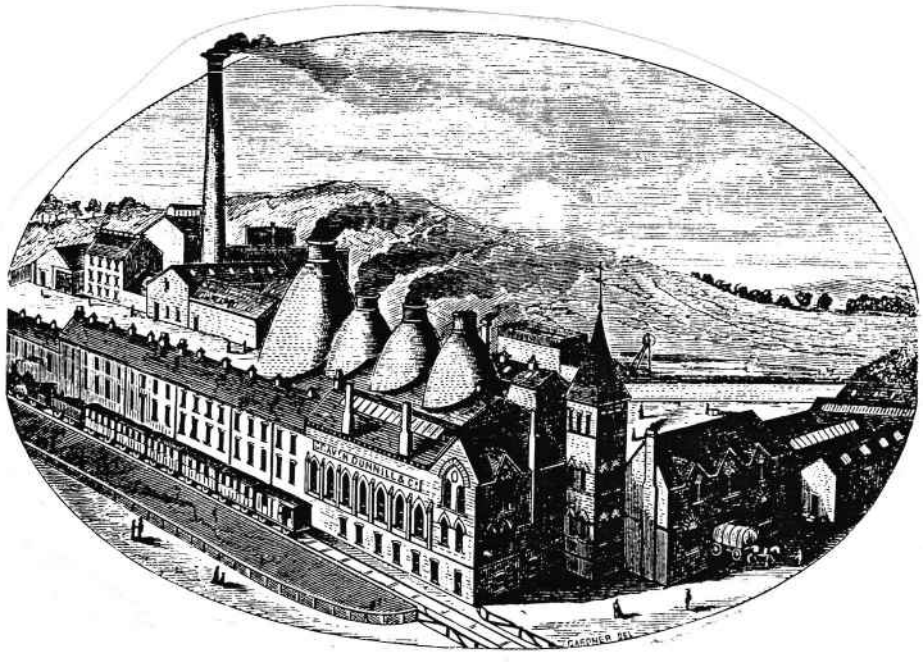


Figure 36: Craven Dunnill Tileworks, engraving taken from Jewitt 1878.

decorative tiles than was Maws. Tiles were commonly found in pubs, and hotels, where a pattern was often achieved using a few standard patterns rather than highly decorated tiles (Herbert 1979:152). In the twentieth century the manufacture of plain glazed bathroom tiles became important.

Layout of the Works

An excellent leaflet has been produced, showing the layout of the works (Kay 1987) and the clay arcs have been studied by MacdDonald (1988). However, many questions may only be answered through detailed archaeological analysis of the structures. For example the changes which must have accompanied the introduction of steam pressing to the works after 1873, the understanding of changes accompanying the installation of the gas holder and coke ovens by 1877, and the Dressler tunnel kiln. The alterations made to the works by W.H.Smiths and Marshall Osbornes should be plotted.

Initially the manufacture of tiles had taken place in the dilapidated buildings of the Ashtree Pottery in the south western corner of the works. These buildings must have remained in operation between 1871 and were demolished after the construction of the new works, after 1874. Excavation of the kiln showed the production of tiles to have followed that of pottery at the same site.

The new works were designed to facilitate the speed and efficiency with which clays moved around the site. John Randall described four blocks, each accommodating a separate branch of the manufacture:

"In the detached block the raw materials are reduced to a state ready for the workman. The second block contains the damping places, where the clays are kept in a certain degree of moisture; pressers shops for the various colour of geometrical tiles, and the encaustic tile makers shops with their stoves. The next block provides for the drying and firing of the goods and decorating shops. On the first floor are workshops employed for painting, printing and enamelling or other decorative processes. The fourth block provides for the sorting and stocking of goods and for packing them for despatch; also the offices and show room. Near to the detached block first described a small gas-works has been erected, which supplies the whole of the building" (Randall 1877:29-30)

Jewitt (1883:182) says,

"the clay goes into the blunging-house at one point, from thence into the slip kilns, mill room, damping houses, press shops, encaustic rooms, drying stove, seggar-house, firing and glaze-kilns, sorting-house, warehouses, packing-room and finally, having in the various processes gone the circuit of the manufactory passes into the railway lurries (sic) to be conveyed to various parts of the kingdom and abroad".

By 1904 there were problems with the works; Craven Dunnill paid Charles Jenkins £5000 for the freehold, saying that if the business was to be continued, it would necessitate a general rearrangement of the works with a heavy outlay (SRO 1681 Box 189).

The firm relied mainly on local clays from their own pit, just to the south of the works. A fine red clay was brought up by steam from a

depth of 100ft (Randall 1877). For the glazed tiles for wash stands and fireplaces, they imported ball clay from Dorset and china clay from Cornwall.

6.75 Maws Tileworks

Documentary Background

In 1879, Maws were in the process of erecting commodious premises for the manufacture of, "classical adjuncts of architectural embellishments, as well as of their porcelainic and fayence adaptations to articles of domestic utility" as well as tiles (Randall 1879:146-7).

Tiles had been manufactured at Benthall from 1852, but as photographs confirm, the site in the steep valley became increasingly cramped and transport difficult. In 1871 they bought a site at the Tuckies in Jackfield, in order to completely rebuild the factory. It was close to the Severn Valley Railway, with ample space for expansion and possibly better sources of clay. The new works were opened in 1883. In 1888 Maws became a limited liability company, worth $67000. Business was thriving, and the board resolved to make further outlay of capital for kilns and new equipment.

Following World War One, Maws moved into the manufacture of cheaper wall and bathroom tiles, and after World War Two, production was halved. The company merged with the Campbell Tile Company of Stoke on Trent in 1961, who were in turn bought out by the H & R Johnson Richards Group in 1962. The factory closed in 1969, and much demolition took place between 1974 and 1977. The site is now used as small residential units and a craft centre occupy the site.

Technological Developments

The firm were responsible for many patents in the manufacture of tiles, improving upon the range and type of colours available, the manufacture of moulds, and the processes of clay preparation, but most were taken out during the firm's occupation of the Benthall Site. The most important in terms of speed and efficiency of output was the application of steam to pressing tiles, a principle incorporated in the design and layout of the Jackfield site. The steam driven press was patented in 1873 (IGMT Mss 666.46 (085)).

Layout of Works

The new factory covered some 5 1/2 acres, and was designed by Charles Lynam. Once again, the key to the factory was a layout which would facilitate the movement of clay and tiles around the different processes. The most modern equipment - much of it designed by the company, was incorporated in special buildings, and provision made for extending the various departments, without losing the relationship between processes (BY 47502).

"The northern or main part of the works has entrance gates opening on to a new road which has been constructed parallel with the railway from a point near Jackfield Church and here are the offices, show room, a part of the warehouses and the packing-room from which the goods are delivered direct on to the siding. On the eastern side the block extends for a distance of 500 feet along the banks of the Severn

and comprises manufacturing apartments, mess-rooms and rooms for the use of the workpeople. On the south, in an apartment 98 feet by 43 feet are the presses for the semi-dry moulding process, the whole being surrounded by a series of receptackles for the pulverized clays which are brought direct from the grinding mill, and delivered through openings in a corridor above. On the same side are the "saggar" making and fitters shops etc; and on the western side is a two storied block comprising drying stove, heated by exhaust steam from the engines, with warehouse above 230 by 21 feet, and various workshops for printing, hand painting etc etc. Again to the west are the sorting, placing, and oven houses; which latter have both the improved "down draught" and older up-draught systems, and on to a subway, level with this building, the coal is discharged direct from the railway. To the north of the ovens are the glazing and enamelling kilns. In another part are the fire-brick works (with automatic machinery) and rooms for refining clays, levigating colours, pulverizing calcined flints etc; while on the higher ground are the workings in the beds of native clays of the coal formation used in manufacture."(Jewitt 1883:190).

Maws were particularly anxious to acquire "red" clay, which, "we do not think you will find any tenant of the potteries would require". The same clay also occurred under St Mary's Church (letter from Maws to Harries, March 7th 1862 SRO 1681 Box 189). Local clay was left to weather for up to 3 years. Dorset ball clays, China clays, Cornish stone, flints, metals or mineral oxides were all imported.

Construction of the works

Map evidence indicates that Maws were already buying plots of land on the former Tuckies estate in 1860. On this piece of land the company built themselves a brickworks (see 1883 OS) which presumably made the bricks from which the factory was built. The brickworks buildings were incorporated into the works, and the brickworks may have used quarried surface clay from near the Tuckies (see details of brickworks given in BY 47509).

Maws had intended to build their new works there, as in 1862 they wrote to the owners of the Jackfield pottery saying that, "some time since we purchased a piece of ground not far from your pottery with the view of eventually moving our works there". They had "...lately commenced a distinct branch of manufacture for which the Jackfield Potteries might be made available but the necessary alteration and improvement would be such that no tenant would be inclined" (SRO 1681 Box 189).

Conclusions

Much work has been done on the artistic achievements of Maws and Craven Dunnill, but little on the layout and functioning of the works. At Craven Dunnill in particular, the buildings still stand, and provide an excellent opportunity to understand the working process. Both factories are the culmination of a process by which factory layout in the Gorge was regularised. This was not a simple, linear progression - 18th century potteries such as that at Benthall can be shown to be planned, whereas there was probably little investment in brickworks buildings until well into the 19th century. The reuse of such buildings by later industries shows a return to a low-investment, less process-specific type of layout.

CHAPTER SEVEN: IRONWORKING AND OTHER INDUSTRIES

7.1 Introduction

There is little evidence for industrial activity at Jackfield until the late 17th or early 18th century when tar boiling, salt making and pottery manufacture were established, all by products of the coal industry. There were two ironworks on the riverside in the 19th century, but the scale of such industries was far smaller than that of brick and tilemaking. This century has seen the characteristic pattern of industries set up in old works buildings at Craven Dunnill, the Rock, the Calcutts works, the Coalport brick at tile works and at Maws.

7.2 Ironstone Mining

Pennystone ironstone outcrops along the banks of the Severn from the Benthall Brook, to Ladywood. Ironstone mining was a major industry for Jackfield in the nineteenth century, although the value of local ironstone was recognised much earlier. In 1608 Jesse Whittingham's lease of the insetts sunk by Clifford referred to the veins of ironstone, and in 1631 James Lacon was paid royalties of 2/6s per ton on ironstone from Woodlands (as opposed to 18d on best coals). Ironstone features with coal in many of the other Ladywood mining content of 35% and were worth 15s per ton, with a cost of 6-9s for getting it (Parton 1865). However, many of the deeper pits got Crawstone. By 1840, James Foster had purchased land and transport networks in Jackfield, and was using them to transport iron ore to the riverside for export to the Black Country. There were apparently calcining kilns on the riverbank.

7.3 Ironworks

7.31 The Calcutts Site

Historical Background

The site of the Calcutts Ironworks was one of the most important ironworking sites in the Gorge. Recent redevelopment has almost completely destroyed the archaeological remains of the site, but there was an opportunity for limited excavation, undertaken by the IGMTAU.

Blast furnaces were built at the site by George Mathews in 1767, who had leased the Calcutts Estate from Sir Onesiphorous Paul. By 1771 pig iron was being sent to his forges in the Stour Valley. Mathews was in partnership with a member of the Homfray family in 1778, and by 1786 the furnaces were operated by Baille, Pocock & Co. When offered for sale that year, the works comprised,

"two blast furnaces making 40 tons of iron per week, two forges, three steam engines, a water corn-mill, brick kilns, twelve coke ovens and 96 acres of land."

The firm was reknowned for its manufacture of canon.

The site was bought by Alexander Brodie in 1786 , who closed the forge, and manufactured ships stoves and cannon in the foundry. In 1796,

"The Cannon are moulded in four pieces which are afterwards joined. (They) are then (by a square piece formed at the breach) fixed in a mortice in the centre of a cogged wheel which is turned by a Steam Engine (7 of 8 are worked at one time) the extra pieces at the Muzzles are then cut off by a hard sharp plate of steel and they are then bored. The borer by an ingenious and simple contrivance is made by weights and a carriage to advance on a rack worked in proportion as it penetrates the Cannon" (Raistrick 1967 quoting Hatchett 1796).

"I examined an extensive apparatus for turning & boring Guns. ...and two large atmospherical Steam Engines with a Condenser & Air Pump one of them with a very heavy Fly Wheel worked the boring apparatus, the other supplied the blast to the furnace thr' the means of one Cylinder pumping the air into another which had a weighted regulating piston" (Goodrich 1799, quoted Trinder 1977)

Armaments were still being manufactured in 1803 when the works comprised,

"three furnaces, some foundries or so-called Air furnaces, a cannon boring machine and turning shop together with more work places belonging to foundries...the boring of cannon is done here with the aid of a steam-engine which works directly on a crank fastened in the centre of a shaft, and this crank subsequently operated 11 horizontal borers via connecting rods"

Another furnace was built by 1804. At Brodie's death in 1811, there were,

"Two blast engines, a water pumping engine, three coal winding engines, a steam cannon boring mill, a cylinder boring mill, and a boring and turning mill worked by a water wheel ".

The works were depicted by Lowry in 1788, and by Arthur Howe Holdsworth (1780-1960) in the early 19th century (1978.225.1).

The site was out of use (Butler quoted Trinder 1977:81) until taken over by William Hazeldine in 1817 who continued production until 1828, but "such was the unpropitiousness of the period, even his master talents could not ensure success".

James Foster bought the works in 1831, using the railway system to convey iron ore to the river. The foundry went out of use, and in 1836, Foster was busy demolishing "all the erections formerly in occupation as a foundry (Hulbert 1837). He did not demolish the remains of the boring mill, which was on F.B.Harries land. (Trinder 1978:39-40, 143-4, VCH draft).

W.H.Smith took over the site in the 1870s, manufacturing machinery for the local clay industry. In 1888 they advertised,

"W.H.Smith, engineer, machinist, iron and brass founder; brick and tile machine manufacturers; general smith; Mill wright etc, Calcutts Foundry, Jackfield" (Porter 1888).

A firm manufacturing precision instruments for the engineering industry took over in 1941, retaining the name of Smith. During the second world war, aeroplane parts were made. When by 1951 the old Craven Dunnill site was acquired, the Calcutts site was retained for

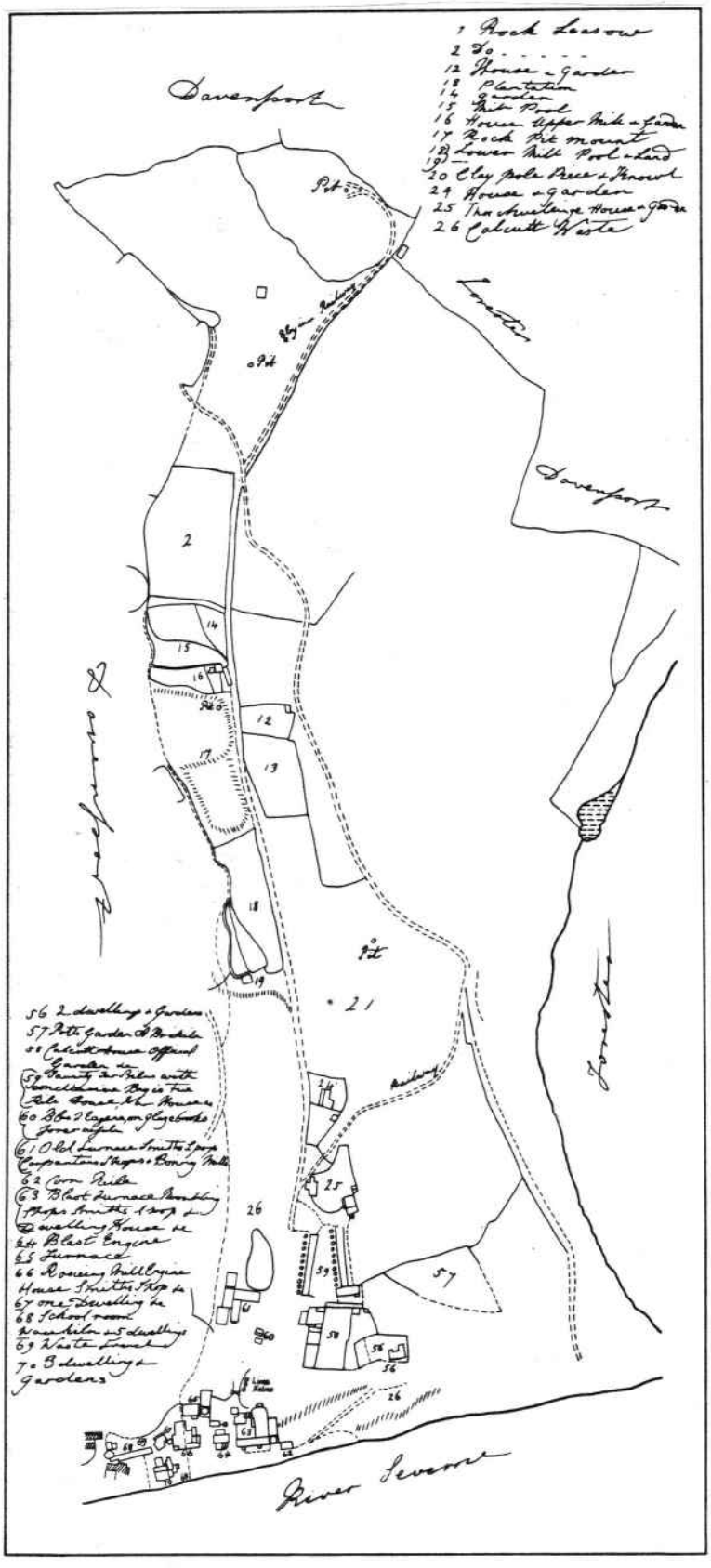


Figure 38: Map of Jackfield Area, 1831 (SBL).

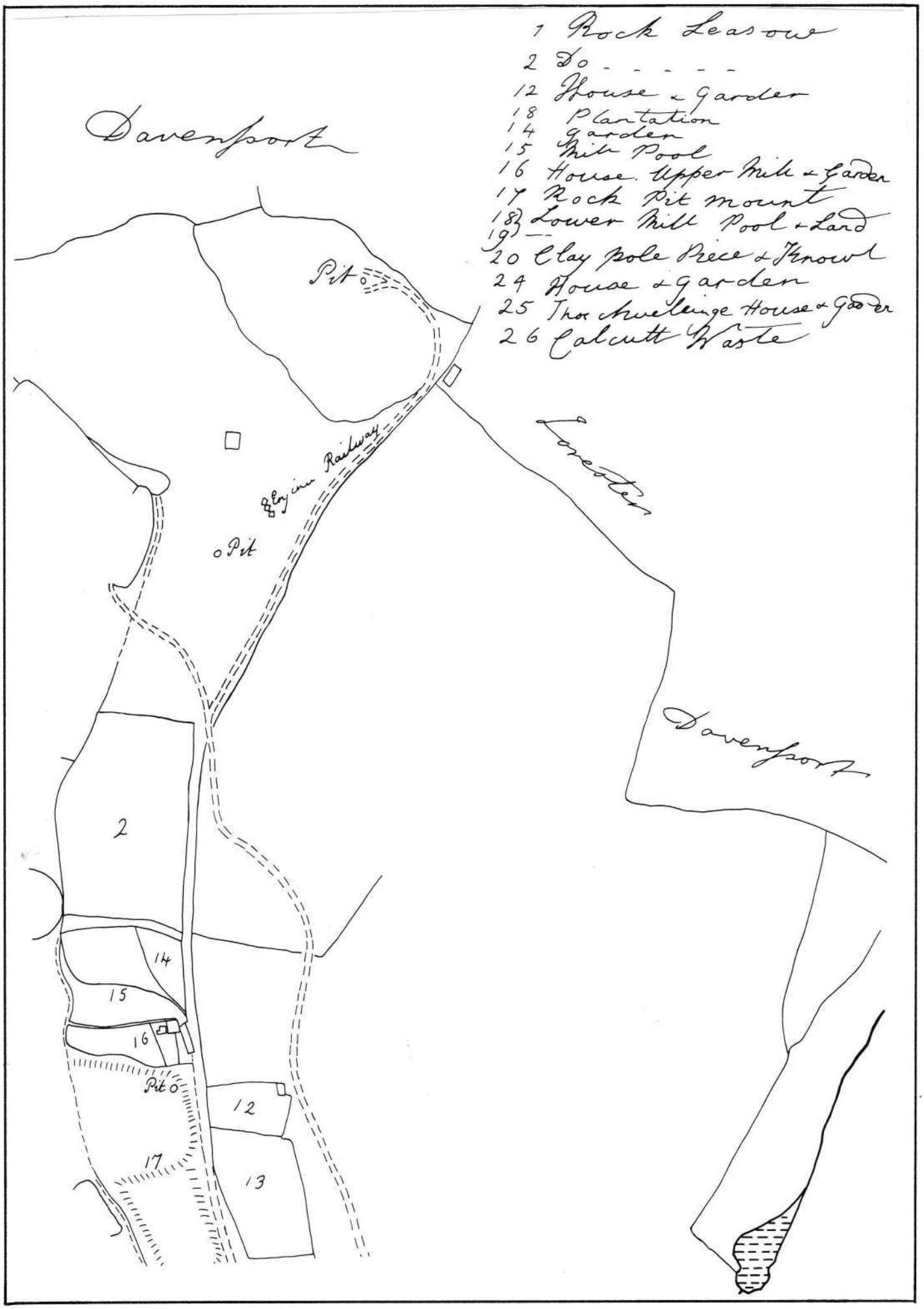


Figure 39: Map of Jackfield Area, 1831 (detail of northern part)

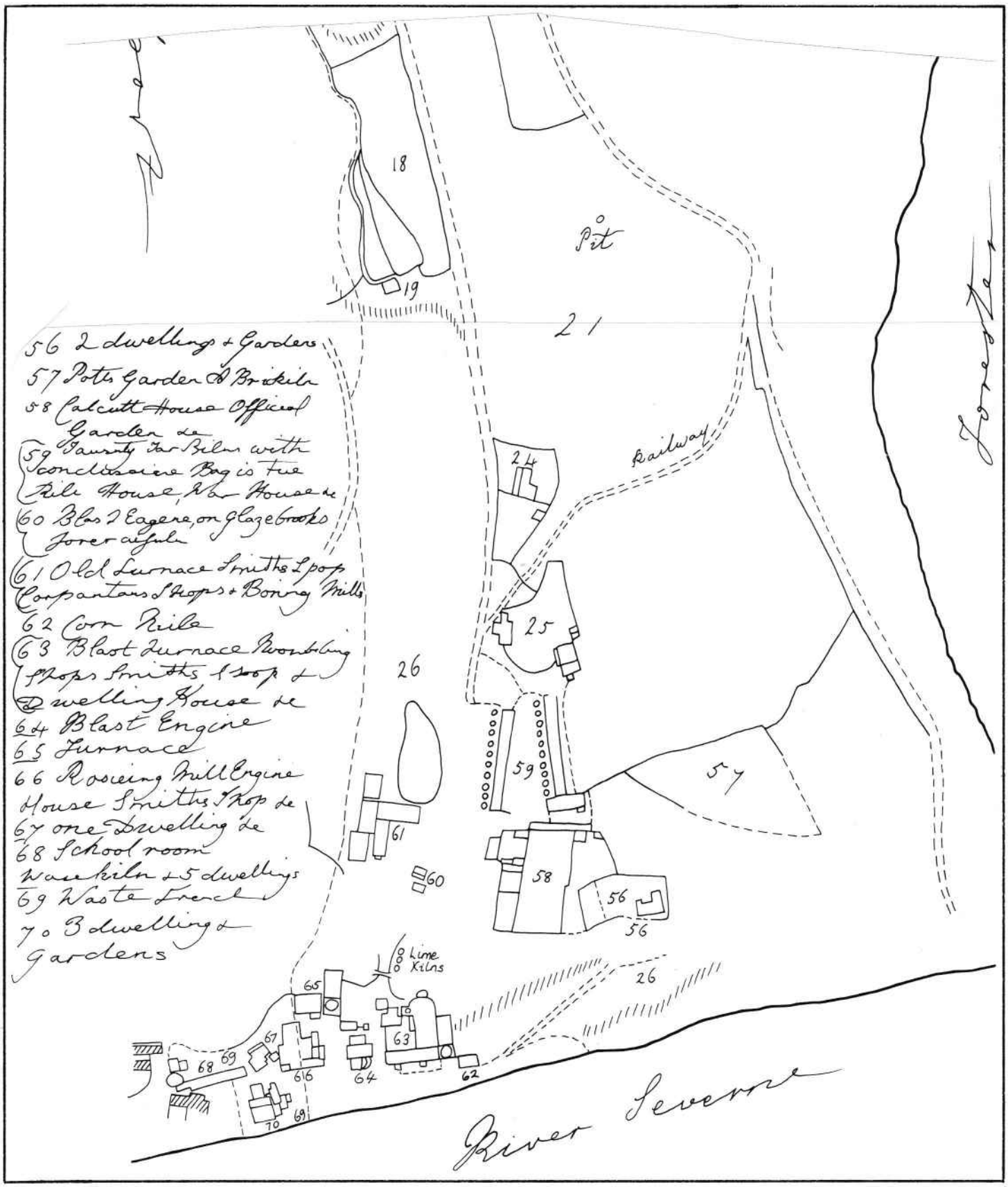


Figure 40: Map of Jackfield Area, 1831 (detail of southern part)

moulding bushes and bearings for the automobile, agricultural, aircraft and engineering trades (Williams 1964). In 1964 the Marshall Osbourne foundry supported 185 employees, but during 1982 the firm moved to stafford park Industrial Estate, Telford and the foundry closed (Madin 1964).

Map and archaeological Evidence

The 1830 map shows six ranges of buildings:

i) Old Furnace and ?water boring mill

No 61 on the 1830 map, the group consists of "Old Furnace, Smiths shop, Carpenters shops and boring mill", located to the south of the main works, on the Calcutts Brook, by a pool. Ruins probably survive under metres of waste from Doughty's tile works to the west of the Jackfield Tile Works car park.

This may be one of the original 1767 furnaces - it was clearly dependent upon water power, with a pool above it, it is described as "Old", and there is evidence for iron working pre-dating the construction of the furnace on the main site. The buildings were demolished between 1830 and 1838. The pool suggests that this might have been the site of the "boring and turning mill worked by a water wheel" of 1811.

ii) Blast Engine on Glazebrooks Principle

James Glazebrook was a carpenter involved in improvements to the steam engine in the 1790s (Trinder 1981:97). A blast engine was in use by 1799, and the Old Furnace was probably converted from returning water over a wheel to direct blast at this period, and the engine remained in operation until at least 1830.

iii) Blast Furnace etc

"Blast furnace, moulding shops, smiths shop and dwelling house" (1830). Presumably the second furnace, and shown Lowry 1788, high above the River Severn. Trench A identified a water wheel pit in the north eastern corner of the complex, working on water from the Calcutts stream. This could have been the original water wheel pit for the furnace, before it was converted to direct blast. The construction for the wheel trench cut though layers of eighteenth century pottery, mixed with earlier iron-working debris, which implies the presence of ironworking on the site before the construction of the water wheel. Perhaps the furnace to the south was built earlier than that to the north.

iv) Corn Mill

Not the same mill as shown on the river in Lowry's picture of 1788, or mentioned as a "Water Corn Mill" in 1786. Located on the river bank, and run down by 1788, the mill could well have been swept away in the floods of 1795. The mill of 1830 was built much closer to the furnaces, and away from the river, its power source is not known.

v) Blast Engine

Probably the later engine, built by 1811, and providing blast for

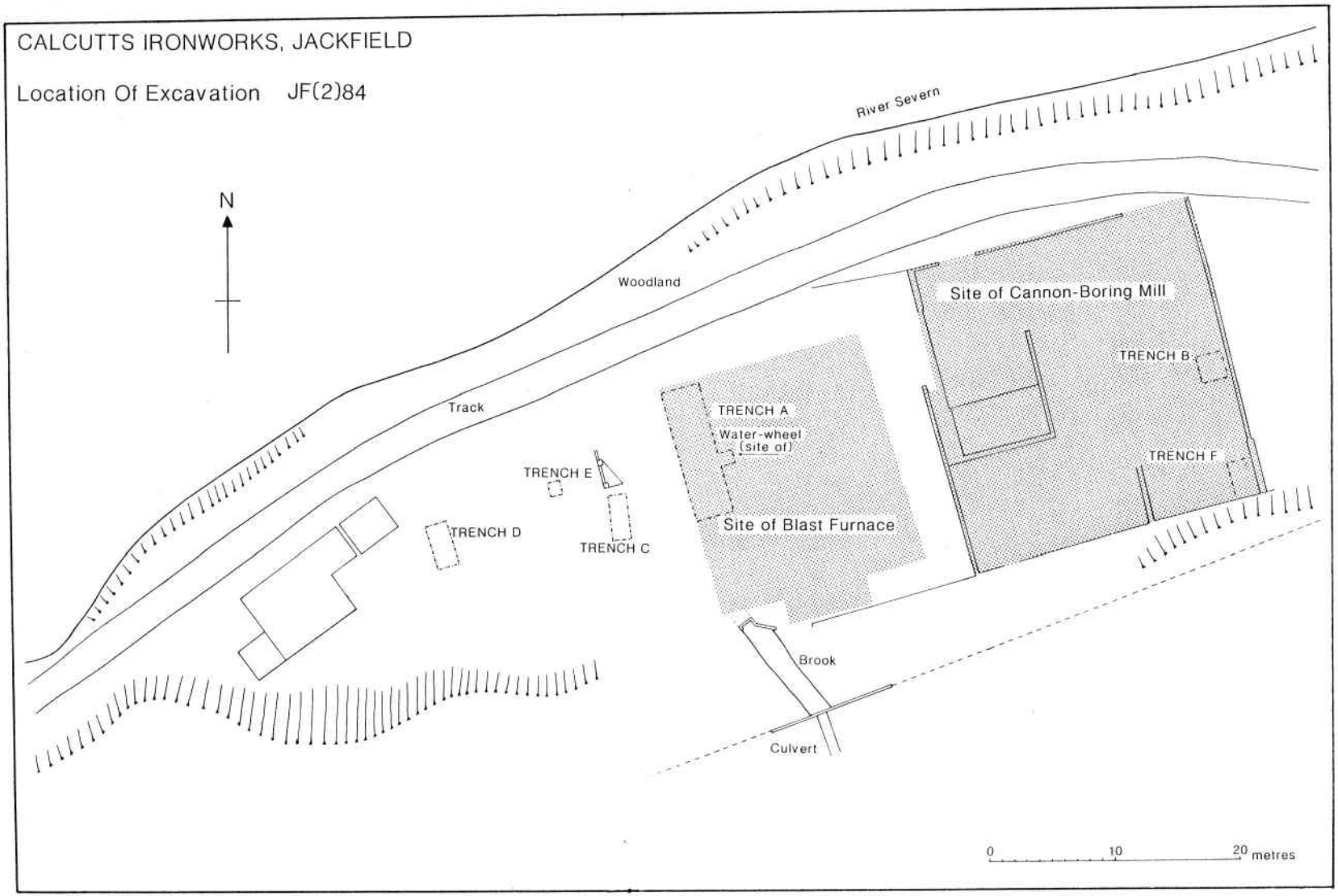


Figure 41: Calcutts Ironworks, Jackfield showing location of trenches excavated by IGMTAU under David Higgins.

second furnace, and possibly third furnace nearby to the south.

vi) Furnace

A third furnace was constructed in 1803 by Brodie, and was still in use in 1830.

vii) Steam Boring Mill

"Boring Mill, engine house, smiths shop "(1830) located to the east of the blast furnace, straddling the boundary between Harries and Paul's lands. Probably the steam canon boring mill in position by 1796, and probably shown in 1788 (Lowry). This was the famous boring mill capable of boring up to 10 cannon at once.

When Foster was demolishing the foundry buildings, he did not remove the Boring Mill, which stood on Harries' lands. W.H. Smith seem to have used the building until Marshall Osborne took over in 1941. Between 1927 and 1956 two large sheds were constructed on the remains of the old buildings. Trench B located the north east corner of this building, and revealed an iron pan perhaps made up of shavings from cannon boring which sealed a layer of 18th century pottery.

7.32 Barnets Leasow Ironworks

Two blast furnaces were constructed on the banks of the Severn near the present Free bridge, by Wright & Jesson (BY 02505). The partnership were already involved in the production of wrought iron using coke at forges at Wrens Nest on the Linley Brook, to which Barnetts Leasow supplied iron. The furnaces were blown by Boulton & Watt engines supplied in 1797 and 1801, and were described as follows,

"2 furnaces on the banks of the Severn belonging Mr Phillips & Cox, called Barnett Leasow. The iron is marked BLF - this iron is always esteemed of superior quality, nearly equal to Madeley Wood, only one furnace in blast, about 20 tons; they are not averaging more than 25 tons per week (Butler quoted Trinder 1977).

Between 1812/15 by Charles Phillips took over, whose partnership in turn went bankrupt in 1820. James Foster bought the site in 1821, continuing to produce iron there under the management of Benjamin Ball (Trinder 1981:48, Randall 1879:123-4)

One painting of the works survives. It shows two chimneys and a group of buildings on a knoll, well above the Severn, a little downstream from Bedlam. The knoll seems to have disappeared when the SVR was constructed. THe field name is quoted in a lease of 1672, seen by John Randall, and relating to the old house at Coalford. The works may have been located either on the site of the Gas Works, or a little to the east in the land due south of the Free Bridge.

Barnets Leasow was a name applied to a colliery mound to the south west, and also to a nearby field (sometimes Upper and Lower Barnets Leasow e.g. SRO 1224/1/44, Tithe Map).

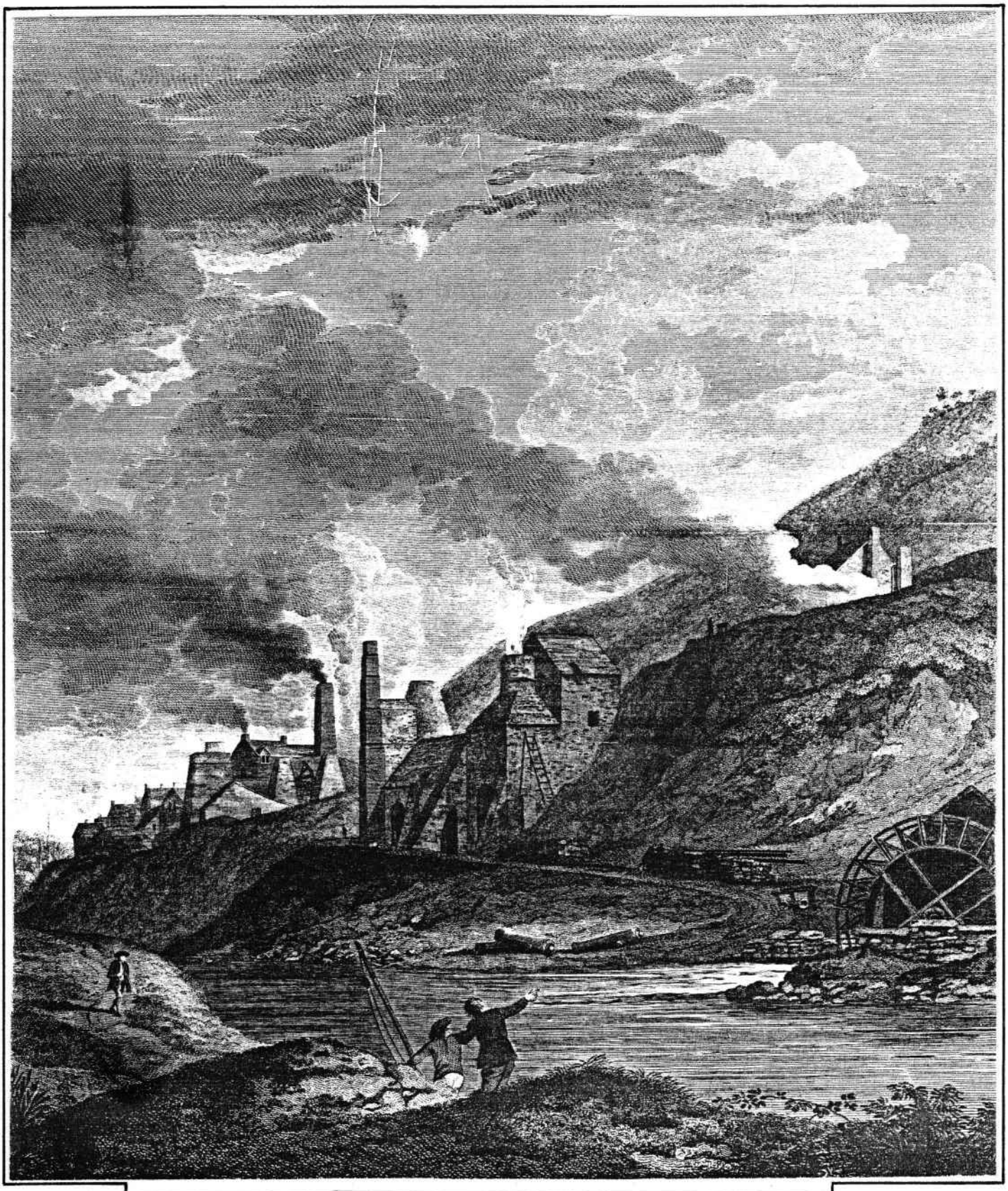


Figure 42: "An ironwork for casting cannon" Wilson Lowry, 1788
(showing Calcutts ironworks and the mill in the foreground).

7.33 The ironworking concerns of Banks & Onions

Coneybury (or Broseley Bottom Coal) Ironworks

In operation in 1786-7, William Banks and John Onions were at the site by 1788-9. Randall mentions a 30hp engine, blowing one furnace at a time, producing 30-35 tons of iron per week. The iron boat Victory was produced here in 1810. Production continued until 1823 (Randall), or slightly later (VCH draft).

The site offices survive at "the house at the Catch-gate, at the junction of the Ironbridge and Dingle Roads" (Randall 1879:125, probably BY 26901). The most likely location for the furnaces was just below the present Coneybury Farm House, in a depressed field, adjacent to the Calcutts stream. There were pools on the stream above and below the works (BY 19201).

6 winding engines were recorded at collieries associated with these works in 1820 (Trinder 1981). The Bottom Coal or Coneybury Colliery was located adjacent to the works, on the other side of the 1828 Broseley road, and most likely supplied coal to the works.

Broseley Ironworks

Another furnace was located on the site of the later Broseley Tileries. It was built by a Guest (John or Thomas), but soon after acquired by the Onions family. John Onions died in 1819 and was succeeded by his son of the same name, who continued at the works until his death in 1877. In the trade directories, John Onions variously advertised his company as "Iron Founders, Iron Masters and Brick & Tile Makers". Brickmaking, presumably at the ironworks site, was first advertised in 1828 (Pigot), and they continued to advertise as Iron Masters until 1846. The term "Iron Founders" was used until 1851.

Coal came from the Deep Pit, sometimes known as Guest's Deep pit to the south of the works, via a small tramway, but later coal supplies came from the Caughley area.

Broseley Foundry

Banks & Onions acquired a foundry by 1800 at a separate site in Broseley, by the turnpike road to Bridgnorth. Steam engines were supplied for a boring mill, and blacking and grinding mills (Trinder 1981:273). An iron foundry, flour mill, office and Casting House, blacksmiths shop, pattern shop, land and pit were owned and occupied by John Onions in **1840**, and buildings remained there in 1844 (VCH). John Onions still advertised himself as an iron founder in 1851, but not thereafter (Bagshaw 1851).

7.4 Tar Extraction

Bituminous tar impregnates the sandstone of the Middle Coal Measures, and also occurs in the coals.

"In Tarbet's Dingle is a spring of water upon the surface of which floats a small quantity of petroleum. It formerly yielded two or three gallons a day. In a pit at the top of the same dingle, petroleum exuded in so great abundance from every crevice in the "little coal"

and from the shale forming the roof, that the colliers were obliged to have large plates of iron suspended over them." (Prestwich 1835:438)

In mines at Coalport, Priorslee, Dawley and Jackfield, the quantity was large enough to exploit commercially. Natural tar was used primarily for caulking boats, but after distilling a variety of other products such as varnishes, or medicinal oils could be extracted.

During the late seventeenth century, most tar for naval purposes was imported from Sweden and Russia, where it was obtained from fir trees. In 1703, the price was raised, and Britain turned to American plantations. Following the War of Independence, there was renewed interest in the production of tar in Britain. Natural tar was used on local boats in the 1670s, and Martin Eele set up a manufactory at Jackfield in 1690 (see below). In 1786 the Coalport tar spring was discovered, but the early large quantities soon diminished. Smaller quantities were collected from mines at Priorslee and Dawley (Prestwich 1835).

There had been "coal tar buildings" at the Madeley Wood Works in 1776 (Trinder 1981:55), so some local experimentation with the the artificial production of tar in coke ovens had taken place before Lord Dundonald's patent of 1781. He claimed that "Tar, Pitch, essential oils, volatile alkalis, salts and cinders" could be made from pit coal. The tar could be used for ships, the volatile oil for masts and yards, the rosin for varnish and the alkali for "Sal Ammoniac". Unfortunately the varnish proved to be brown, and to smell too bad to be used, and his hopes that resulting cinders could be used in ironfounding proved wrong. He established kilns at Jackfield and Benthall (see below, ENL MSS 5372-80).

Considerable interest was generated by Dundonalds activities, and the possibility of generating extra income by producing coke in ovens. Ovens were built at Madeley Wood and Ketley, and Wilkinson expermiemnted with the process, but by the late nineteenth century, coking in open heaps was again the norm (Trinder 1981:57).

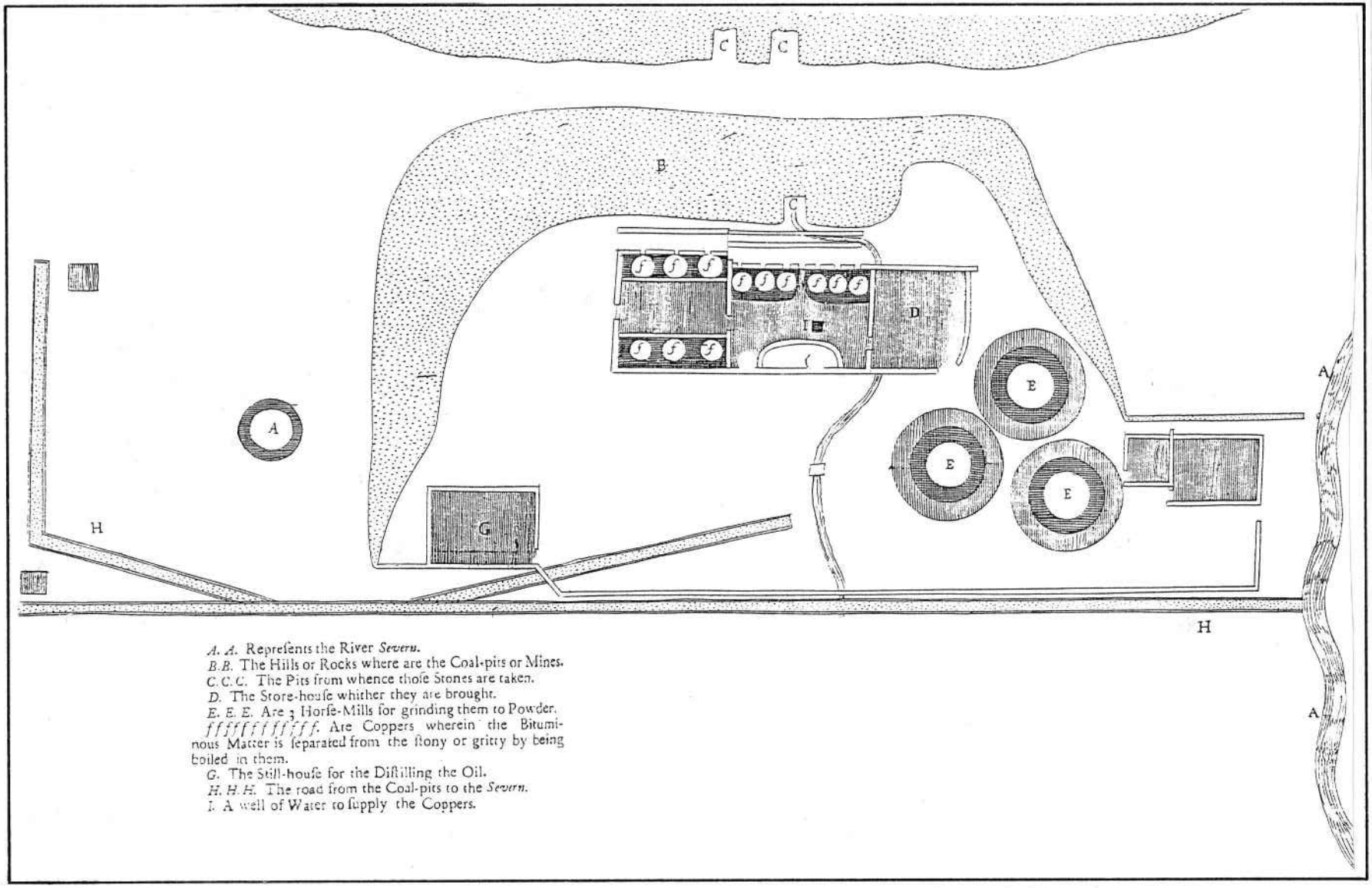
7.41 Martin Eele

Between the 1690s and 1711 Martin Eele was extracting tar at the Calcutts with the following process:

"The stone (was) ground small by Horse Mills such as are used for grinding Flints to make Glass of; the Powder is thrown into great Coppers of Water, where by boyling, the Bituminous Matter is separated from the Stoney or gritty, this last sinking to the bottom, the other swimming at top of the Water.

This Bituminous Substance being gathered together and evaporated, comes to the Consistence of Pitch, and with the help of an Oil distilled from the same Stone, and mix'd with the Pitch comes to be thinner or like Tarr, the Uses of both which Materials either for Shipping or otherwise, these substances are said to supply, nay even go beyond. And this has been tried on several boats this Three or Four Years past, and does not crack as the ordinary Pitch or Tarr, but always keeps black and soft, and therefore is proposed to hinder the Worm from getting into Ships pitched with it.

There is likewise Distilled from this Stone and Oil which may be used



A. A. Repreſents the River *Severn.*
B.B. The Hills or Rocks where are the Coal-pits or Mines.
C.C.C. The Pits from whence thoſe Stones are taken.
D. The Store-houſe whither they are brought.
E. E. E. Are 3 Horſe-Mills for grinding them to Powder.
fffffffffff. Are Coppers wherein the Bituminous Matter is ſeparated from the ſtony or gritty by being boiled in them.
G. The Still-houſe for the Diſtilling the Oil.
H. H. H. The road from the Coal-pits to the *Severn.*
I. A well of Water to ſupply the Coppers.

Figure 43: Illustration of Martin Eele's tar works, from the Philosophical Transactions (Eele 1697).

for Oil of Petre, or Tupentine (sic), and has been tried by divers Persons in Aches or Pains" (Eele 228:544).

The works were located on the Calcutts Estate, by the river to the west of "the road from the coal pits to the Severn", shown on the accompanying map as a railway.

7.42 Lord Dundonald

Dundonald's process was first tried on family estates at Culross, but in 1784-6 Dundonald (d 1831) established manufactory adjacent to the Calcutts Ironworks. Twelve kilns were erected, and another eight added by 1800. Dundonalds firm was lost a great deal of money, and by 1799 were no longer significantly involved in local tar production. Alexander Brodie operated the kilns, and the tar was marketed by Anly Birch, and Wright, a London firm. The manufactory was still in operation in 1803, tar was collected as late as 1836 (VCH) and the kilns demolished by 1838.

The process is described in detail elsewhere (Trinder 1981:55-6). The site of the kilns can be plotted accurately from the 1830 map, but the site is now occupied by bungalows, and little survives.

7.5 Clay Pipe Manufacture

Perhaps the best known, and now one of the best documented Broseley industries was the manufacture of clay tobacco pipes. Although of interest on a local level, the importance of clay pipes to the archaeologist lies in their potential as dating tools. Clay pipes break quickly, and often have traceable makers marks, making them much more precise indicators of the date of a deposit than, for example, slipwares which are in production from the 17th century through to the 19th century. The Broseley industry has been researched by Atkinson (1975), and more comprehensively by Higgins (1987). The remaining works at King St, Broseley has also been the subject of a recent study (Higgins et al 1988).

One clay pipe manufacturer in Jackfield was recorded in the Tithe Apportionment of 1830 (Samuel Roden), and the site was located very close to the SVR, and has now been destroyed.

7.6 Other Industries

Gas

The sometimes spectacular occurrence of natural gas at Broseley was much commented upon in the eighteenth century. Gas accumulated in some of the coal measures, such as the clod and best coals, particularly near large faults, and at the commencement of new works (Prestwich 1835). There seem to have been at least two famous burning wells - created by such accumulations - one at Jackfield, and one in Broseley in the "Fiery fields" near Coalpit Hill.

The Gentlemans Magazine of 1775 described a well, "about 60 yards from the River Severn, in the parish of Broseley, at the foot of a gentle but rising hill, encompassed on all sides by coal works" (quoted Randall 1879). The description could refer to anywhere in Jackfield.

A burning well found in 1711 was described in 1746 (Universal English

Directory c. 1797). The well was extinguished in 1755 when a coal pit was dug near it. No indication of the location of the pit is given, but it could well have been at or near the site of yet another occurrence. Samuel Parsons map of **1621** shows the "Old Coalpit on Fire", located to the west of the old centre of Broseley, in an area still known as the Fiery fields.

Gasworks were established at the Craven Dunnill site - the base of one gas holder can be seen at the back of the site. Maws too made their own gas.

Gas lighting was provided by the Ironbridge Gas Light Company from 1844, but in 1872 the Broseley Gas & Coke Company bought up the fittings in Broseley, and constructed a Gas Works at Ladywood, which stood until 1983/4. Part of a retort can be seen by the railway line, and one of the two gas holders can be seen in several aerial photographs (IGMT library). The works also supplied coke, tar and lime (Mugridge 1985:35).

Salt

Brine was another natural product of some of the coal measures. Salt was reputed to have been collected from pits near the perhaps eponymous Salthouses - most likely in the vicinity of the Jolly and Bonny pits of 1728 behind the settlement - in the eighteenth century (Plymley 1803). The pottery industry was a large consumer of salt, and there is extensive archaeological evidence for the manufacture of salt glazed wares in the early eighteenth century.

Chemicals

There was a chemical works at the Werps, listed in the censuses for 1861 and 1881, and employing one labourer. It was located in one of the old buildings of Taylors brickworks there, before the new Maws factory was constructed on the site.

Cement

Thomas Mapp manufactured cement between about 1851 and 1871 (various directories) at the Calcutts, using the building and pool of the old Calcutts Mill taken over from Samuel Davis, who was last listed as a miller in the census of 1841. In 1851 he employed two men, and in 1861 was listed in the Census as a "Colour and cement manufacturer" employing a boy and a girl.

Concrete was manufactured more recently, on the site of Doughtys tile works (see 1970 OS revision SJ 6802, BY 06508).

Limestone

There were three lime kilns at the Calcutts on the map of 1830, adjacent to the stream. These were presumably demolished by the construction of the Severn Valley Railway. John Patten seems to have been associated with working these kilns as well as those at Benthall.

Rope

There were at least three manufactories in the parish - one at Ladywood, and another by the road to the Coalport Bridge at Handleys

Hitch, and possibly another between the Werps and Preens Eddy (BY 01701, BY 52401 and BY 55201).

John Burroughs, "Rope and Tarpawling(sic) Maker, was at Ladywood from at least 1842. In the census of 1861 he employed 13 men and boys, and in 1881 16 men and ten boys. He was also involved in brickmaking at the Ladywood site (hence the large number of employees), selling firebricks by 1888.

James Harrington was advertised as a Rope and Sailmaker in Broseley in 1840. The tithe award and some directories show he was at Ladywood 1838-4, at the same time as Burroughs. However, there was was another ropewalk at Handleys Hitch, let to John Burroughs in 1840.

Thomas Richard Burroughs was at the "Old Rope Walk, Preens Eddy" in 1900. This seems to have been the Old Rope Walk of the census of 1841, between the Werps and Preens Eddy. Presumably the long rough area of river bank here would - as at Coalport - have been an ideal site for rope making, leaving few remains. Thomas Jones and William Oswell were Cordwainers at the Werps in 1841.

Clog Making

Photograph 1986.6319 shows the area of the Werps ferry, with behind the "Cloggers Area", famous for the manufacture of clogs. Clogs were made in Ironbridge (Randall 1908:421). The picture was taken between 1890 and 1910, but no further details are available.

Other Manufacturing

The old industrial buildings of Jackfield have been recycled for a number of other purposes. Calcutts and Craven Dunnills became brass foundries (see above), and Maws is now divided into small industrial units with attached housing. The remaining building from Doughty's is used by Westons Portable Buildings, Jackfield (BY 06509).

The site of the Rock Tileworks is currently used for the recycling of metal by Rock Metal Co., who use the old drying shed, the office and part of another drying shed (BY 07001). The Coalport Brick and Tileworks was taken over by the Wolverhampton metal Co after it went out of use as a tileworks. Apparently the owner of the Nuway Rubber Mat factory had attempted to keep the works going by burning rubber mat waste, but failed (Mugridge 1987a). Hornsey Gates currently make 5 barred aluminium gates on the site of the Milburgh Tileries, but do not use any of the existing buildings.

The adaptive reuse of industrial buildings for other purposes is clearly an important part of the process of industrialisation, perhaps best illustrated at the Broseley pipeworks, where what may have been a cotton manufactory became progressiveley a warehouse with tenements, a group of tenements and later a clay pipe manufactory. In the same way, engine houses have become domestic dwellings at Jackfield. The existence of buildings already on a site in turn affects the later use of that site. Industrialisation seems to involve phases of new investment, where works are built or rebuilt, to accommodate new processes, and phases of low investment, where older buildings are used, and the processes adapt to fit existing buildings. Very much the same cycles can be observed in housing.

CHAPTER EIGHT: THE BUILDINGS AND SETTLEMENT OF JACKFIELD

8.1 Introduction

More than any other area of the Gorge, the communities which now comprise Jackfield have experienced major sequences of change, rebuilding and clearance, and there is now very little of the eighteenth and nineteenth century settlement pattern surviving. Although a number of important seventeenth century buildings have been recorded, none of these now survive.

8.2 Early Settlement

Documentary evidence of settlement in the area during the seventeenth century has already been discussed - surviving buildings are not earlier than the early eighteenth (or very late seventeenth) century. There is scattered evidence for the form of some of the earlier buildings of the area: the building known as the Dog and Duck survived until 1940, and photographs of it exist: it was a large timber framed mansion apparently of 1654 (VCH draft). Photographs show it as a three bay building, two storeyed with attics in the three gables, the framing including decorative timber work. The Tumbling Sailors was also a timber framed house, though no photographs of this building have so far been found by the present author. Documentary records refer to at least one other large house of the early seventeenth century, this may have been Coalford Hall which is also reputed to be of about this period. Its site is unknown, but a cluster of buildings at Coalford incorporating timber framed partition walls in later structures are reputed by oral tradition to be built on its site. If this is true, then Coalford Hall must have been demolished by the early eighteenth century, and probably before, since there is no trace of it on the Tithe Map, and the buildings on this site would appear to be late eighteenth-early nineteenth century. The Tuckies originated as a substantial timber framed house, remnants of which still exist incorporated in the 17th century brick structure, and the timber framed hall and cross wing form of Woodhouse Farm also survives.

Of smaller houses of this early settlement, a small timber framed cottage with massive axial stack was recorded by Forrest in 1915 at Salthouses. A photograph exists in the Museum's archive which shows two timber framed houses, with brick infill below gable level, again, likely to have been at Salthouses.

These records of early buildings provide fragmentary evidence for the earliest settlement of the area: they show that Coalford, Lloyds Head, and Salthouses at least were established by the early seventeenth century, though there is scant evidence for the form of these settlements, beyond the existence of a number of large houses apparently built with income raised in mining activities or by river trade.

Sufficient evidence from surviving buildings and maps exists to enable the eighteenth century communities to be reconstructed in more detail. Photographs of The Werps show that the General Gordon Inn was a brick building typical of the early eighteenth century, though the other buildings immediately adjacent to it were probably late eighteenth-early nineteenth century houses. The Boat Inn once comprised a longer row of cottages which had an early eighteenth century form-substantial timberwork inside the building may suggest an earlier

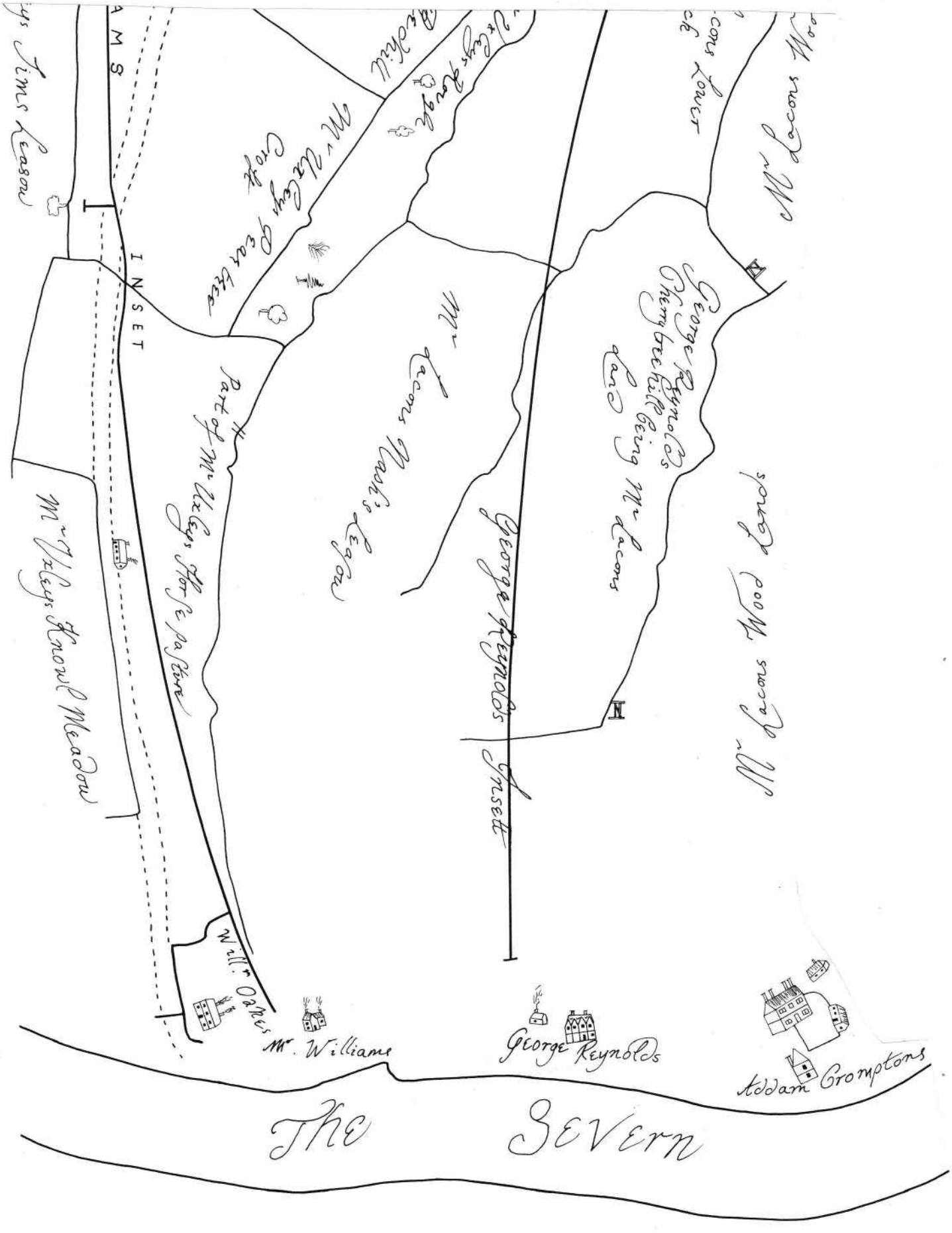


Figure 44: Jackfield Riverside, taken from "A Map of those lands in Broseley through which the Several Insetts do pass, taken Anno Dom 1676, R.H. 1730". See figure 16.

core, but it was clad in new brick at the end of the nineteenth century (brick from Maw and Co). Photographs of Salthouses suggest that there were a number of eighteenth century buildings in the area later known as The Square: The Half Moon Inn, while substantially altered, had the one and a half storeyed form usually associated with early-mid eighteenth century building, and the range of buildings immediately west of it included at least two single unit early eighteenth century brick cottages.

The Broseley Estate Book includes a map of the Calcutts area which shows a number of houses, pottery kilns etc. Some of these still survive, though others had vanished by 1840. Calcutts House is dated 1755. Surviving buildings in this area are also largely eighteenth century- the Severn Trow has some features suggesting a late seventeenth century date for the original two unit house on the site. A large house nearby, later subdivided, is also shown in the Broseley Estate Book, and so is the row of cottages. Oak Cottage and one other house in this area also shown on this map, though various other buildings in the area had been destroyed by 1840.

At Lloyds Head, a row of cottages survived adjacent to the Black Swan until they were replaced by local authority housing c1950. Photographs of these suggest that they also dated to the early eighteenth century (a terrace of single unit cottages). At Coalford, there is a cluster of cottages of a form and detail characteristic of this period, and one slightly larger house of very similar type.

So many buildings have been lost from these areas, that it would not be possible to arrive at an estimate of the extent of building in the early eighteenth century, and photographic evidence suggests that there was also extensive building towards the end of the eighteenth century, and in the early nineteenth. Settlement appears to have reached its fullest extent by 1840, and grew very little after that date-in fact the total number of houses contracted (see below). Some 16 houses were added between 1847 and 1881 (as most of these were later owned by Maw and Company, an most were built according to a regular process of design-symmetrical rows with standard plan forms and decorative detail, it seems likely that they were in fact built in association with the expanding brick and tile industries, though they do in fact pre-date the establishment of Maws itself). A further 4? were added between 1881 and 1902. There was then no major building programme until the 1930's, though one large house (The Mount House) and a small terrace nearby were built shortly after 1902: these buildings constitute a problem since they would seem to be built to exploit the products of the local brick and tile works, yet are built on land which was waste in 1902 and probably associated with these industries).

The principal characteristics of settlement in Jackfield are its separation into a number of discrete areas, and the density of building within these areas. By 1840, most built plots had several buildings in them, though there is very little evidence of sustained building programmes for terraces and pairs of cottages (but see terrace at Calcutts). Many groupings appear to have been formed piecemeal by additions. There is very little coherent ordering of development, and the crowding of building on already small plots resulted in the formation of tight groups of building that were virtually back to backs. Some surviving groups suggest that in many cases, additional building was contrived by the addition of a wing to

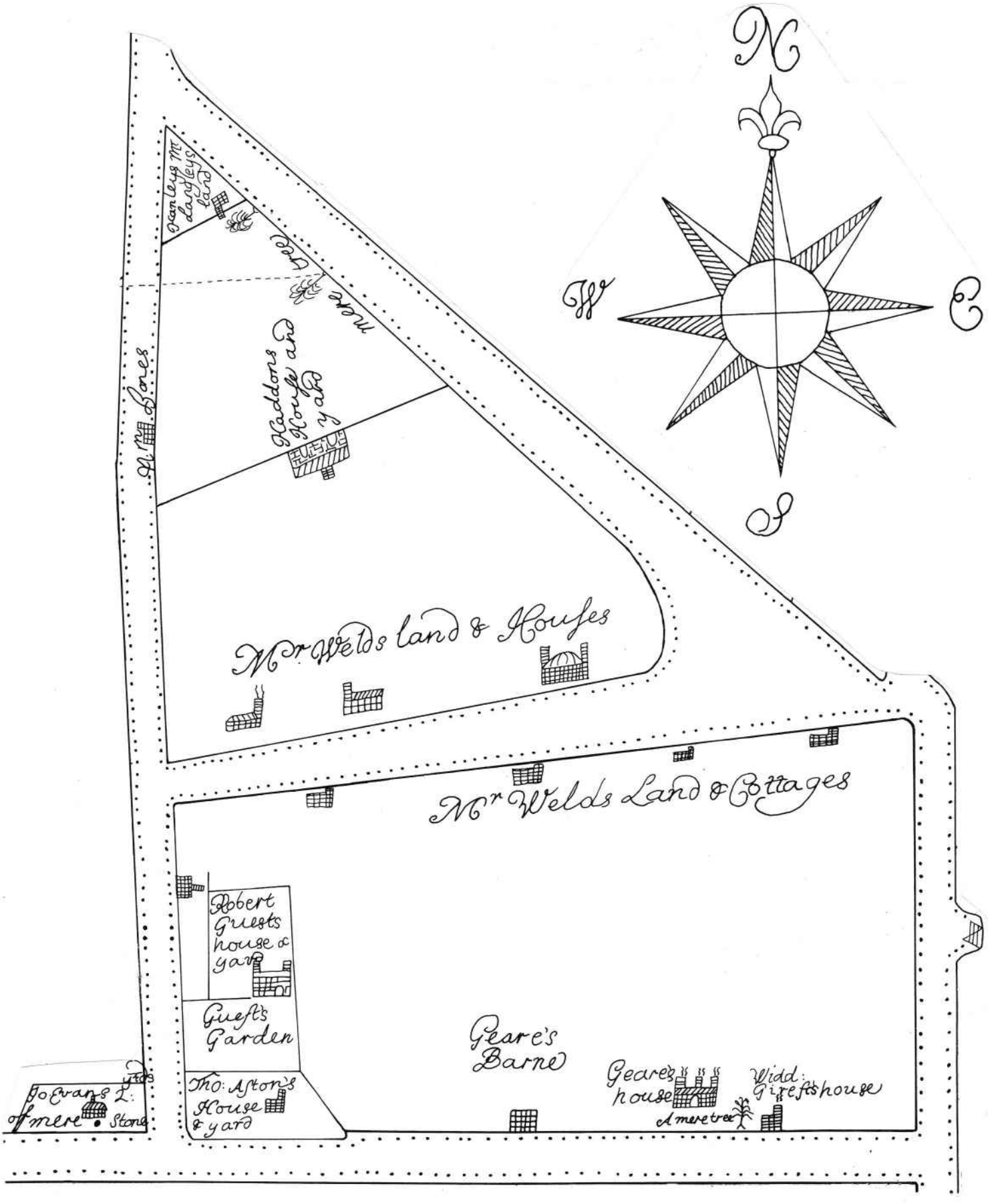


Figure 45: Broseley Wood, taken from "A survey of several lands in the Lordshipp of Broseley belinging to the Right Worshipfull George Weld Esq. Plotted by W.C. Anno Domini 1686." (tracing). SRO 1224/1/34. See fig. 13.

an existing building, though it seems likely that such additions would have been in separate occupation. Lloyds Head (or Coalford?) reveals how a tight group of buildings would be formed by addition, and gradual infill, building behind or in front of existing buildings. Two houses at Calcutts have separate dwellings in a later rear wing (one now re-amalgamated as a single house). An early illustration of the process of piecemeal addition is provided by the Broseley Estate Book, which shows a number of cottage rows clearly built in several distinct phases, and where the buildings in the groups are not of equal size.

Though successive demolitions have radically altered the landscape of the area since the Tithe Survey, analysis of the Map and Apportionment suggests that in many cases, buildings were subdivided or added to in a manner suggestive of the kinds of alterations characteristic of squatter communities (see Holywell lane, for instance). The map suggests that in many cases, buildings formed blocks of development rather than rows. Jackfield contrasts with other areas of the Gorge, where additions in many cases did form uniform terraces. Photographic and map evidence of "The Square" at Salthouses, for example, suggests that this very densely built up area was the result of piecemeal additions. There is no common building line, and few of the buildings seem to have been built together as a single development.

Patterns of development varied with the different areas- Calcutts for instance was characterised by much more orderly development, and a preponderance of plots each with a single building.

These patterns reflect the importance of plots as units of development. In many cases the original (or at least an early) form of the plot can be traced, showing how buildings have been added, for instance built up against the margins of a piece of land. Enough plots each with a single building survived until 1840 to suggest that this was the original pattern of development- by the early eighteenth century, the plot pattern seems to have been established with strict delineation of boundaries, if the crowding of building into restricted areas is any indication (for instance at Coalford, where several of the buildings in plot no 46 appear to be eighteenth century). By the mid nineteenth century, the pattern of land holding no longer reflected the significance of the plot structure- speculation in property meant that individual holdings were scattered over a number of plots, while individual plots had been subdivided among several different holders. It seems that by this time, constraints on development were imposed more through competing land uses than through a highly fragmented tenure, though it remained true that there was no real concentration of leasing which would have broken down plot divisions across a wide area.

The riverside communities were also characterised by a number of special purpose buildings- the Broseley Estate Book clearly shows a number of cottages in the Calcutts area with small kilns attached to one end- domestic pottery works. Although one of the cottage rows thus shown still survives, there is no trace of the kilns and it seems likely that these were removed and rebuilt, perhaps as houses some time before 1840 (see house on site of bungalow on plot 447, for example).

River traffic generated the need for several large inns, though these are only documented for the nineteenth century - The Dog and Duck and the Tumbling Sailors were originally built as single houses, and it is

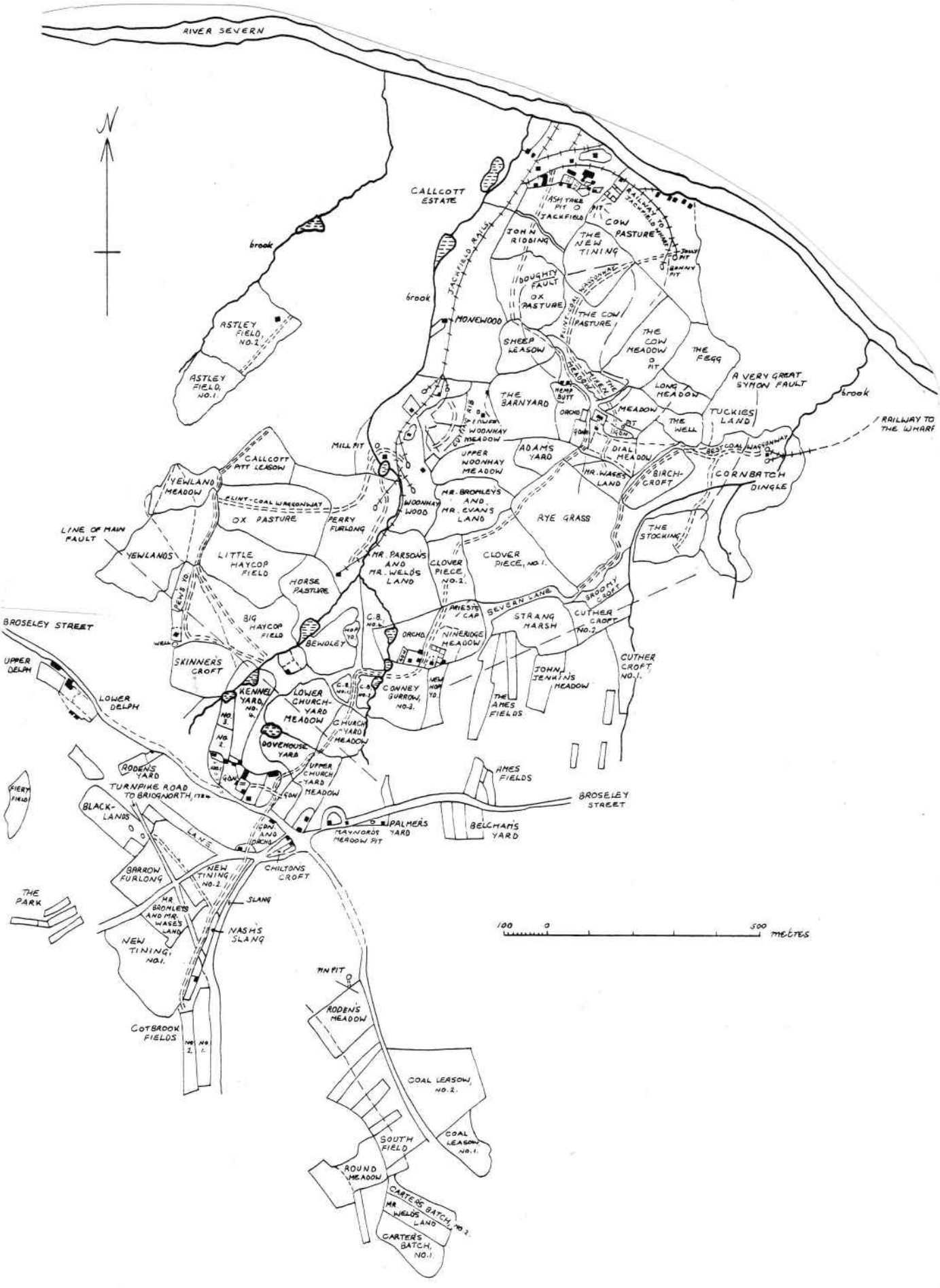


Figure 46: Broseley Hall Estate Map, c. 1728 with additions c. 1765. Redrawn at 6"/mile.

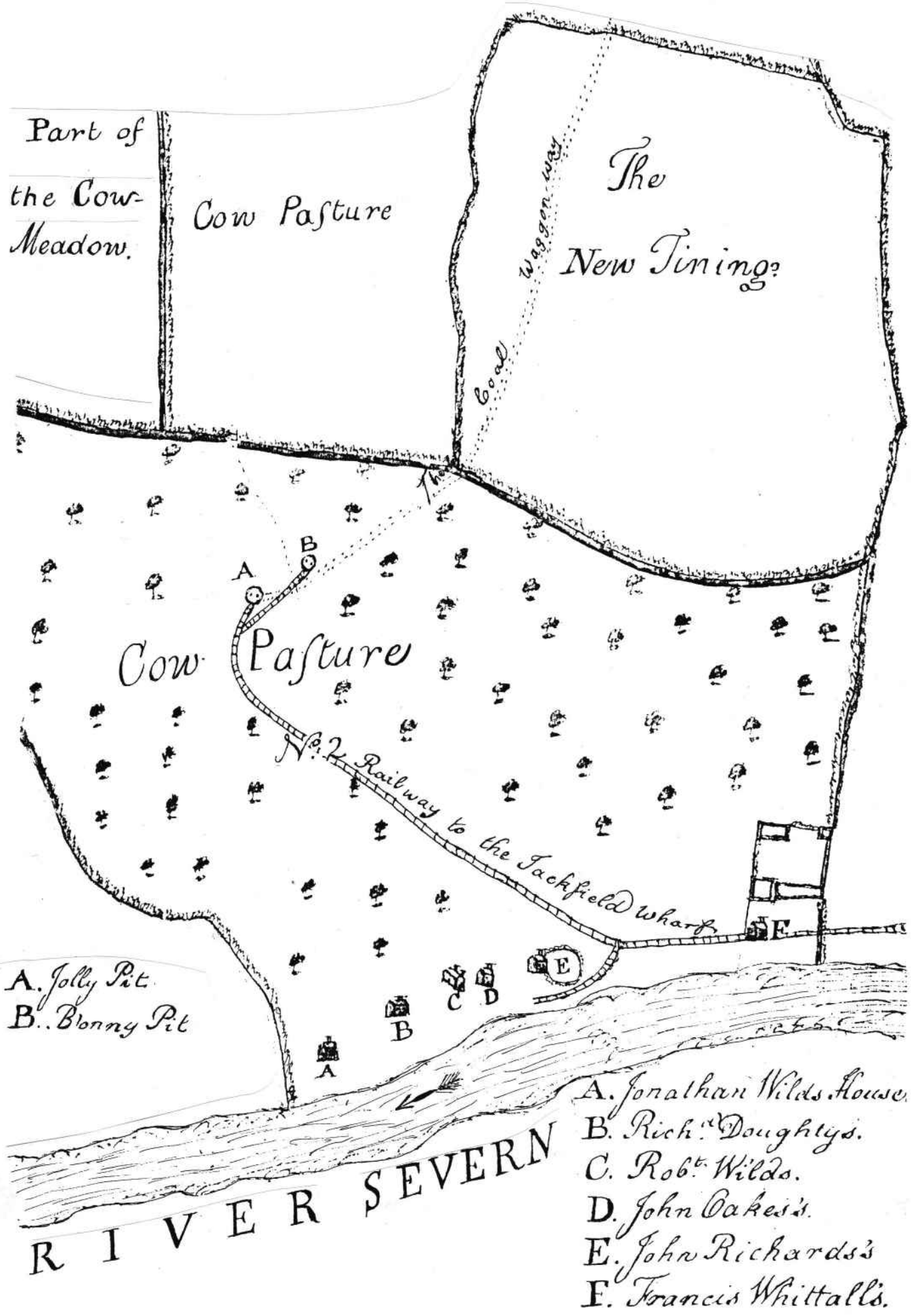


Figure 47: The Salthouses area, taken from Broseley Hall Estate map c. 1728 with later additions. (tracing of original)

not known when they began to function as inns. The same may be true of the house on plot 450, built in the early eighteenth century, and later converted into cottages, but reputed to have been an inn at one time (it was already divided by 1840). Several other buildings have a long history as inns or ale houses, though some of these, like the Severn Trow, The Half Moon and the Lloyds Head inn, could have been built as houses. There are however a number of other inn buildings which many have been purpose built: The General Gordon appears to have been an eighteenth century building, rather longer in plan than a typical house of the period. In the late eighteenth or early nineteenth century, the Duke of Wellington, The Fountain, The Summer House and the Swan, all seem to have been purpose built as inns, and differ from houses of the same period in their layout and form.

The Tithe Survey reveals a very high building density, probably higher than in any other area of the Gorge with the exception of parts of Broseley and that part of Ironbridge immediately north of the bridge itself. This high density was associated with large numbers of very small cottages- it is in most cases not possible to ascertain the form and size of many of these, but many surviving buildings formerly comprised several dwellings, and the Tithe Map shows how many individual units could be crowded into very small plots. In addition to this, several of the large seventeenth and eighteenth century buildings had been subdivided by the early nineteenth century. The Tuckies, and BY 450 for instance. The two seventeenth century mansions on either side of the Ferry were inns, and each was also the centre of a larger cluster of buildings, as small cottages were built up against the earlier buildings (The Dog and Duck was three cottages by 1902). Coalford Hall seems to have been demolished buy the early nineteenth century. All this shows how the settlements that comprise Jackfield changed with the more intense industrial development of the area, by the early nineteenth century.

8.3 A sequence of Demolition

First major loss of buildings brought about by construction of railway in 1862 which cut through the built up area. Probably at least 50 houses were destroyed. However, even by 1840 a number of houses at Calcutts had already disappeared since the early eighteenth century (date of Broseley Hall Estate book). Whether there were similar losses in other areas cannot be documented.

By 1881, a number of other buildings had been demolished, not connected with the railway, and not obviously associated with the use of land for any other purpose, although two groups had been replaced by land used with a brick and tile works (eg for clay weathering or even extraction). By 1902, a number of other buildings were also replaced with the building of the Benthall Encaustic tile works (Maw and Co).

In the twentieth century, there was surprisingly little slum clearance, with only one group of buildings demolished before the 1950's, but the landslip of 1952-3 destroyed a substantial part of the settlement at Salthouses (about 20 houses though News Chronicle of April 8th 1952 suggested that as many as 50 buildings were affected - 12 months later the Shrewsbury Chronicle said on April 24 1953 that 10 buildings were empty, and 8 had been partially demolished).

There was also some statutory clearance in the 1950's (demolition

orders were placed on 4 houses in the Werps in 1955, following earlier orders imposed since 1938 (SRO DA6). New developments in Broseley were used to rehouse Jackfield residents as a consequence of slip damage, and later clearances.

8.4 New Building

The new building phases in early twentieth century have a clear relationship to the history of change in the local industries. There are three principal phases: the first was of a small number of buildings that display locally produced brick and tiles, and so would seem to be connected with the local industries, almost as advertisements for their products, and a second phase of houses that are clearly built once the industries have closed down, reusing otherwise derelict land. Among the earliest of these was the small development of 10 houses forming Chapel Lane- this was the only private development of the twentieth century that attempted to develop on a scale sufficient to generate coherent landscaping. All other development appears to have been of much smaller private projects utilising vacant plots or waste land.

Evidence for the twentieth century building process: largely private development (two exceptions the council housing on Calcutts Road and at Lloyds Head, which use in each development an identical model, and also employ a small terraced or semi-detached form). By comparison the private development was composed entirely of detached buildings- some probably built as speculation, others by commission? It is apparent from study of the bungalow developments in the area of the Knowle for example, that the design process centred on a single basic model, comprising plan and layout, to which a number of modifications could be made during building - these included cladding materials, size and form of windows, ornamentation (the most extravagantly detailed bungalows, using porticos and Spanish detail also appear to have been designed according to this process). The extent of these variations suggests a commissioning process, and may be compared with the Chapel Road development which only used two basic models for all 10 bungalows.

8.5 Conclusion: Jackfield and the Community of the Gorge

By 1870 Jackfield seemed (to H.P. Dunnill) to be "The Fag End of the World", and still seems to be the most neglected and marginal settlement of the Gorge. It is relatively isolated, has few facilities (school closed in 1981 (VCH draft) and there is only one shop), abounds in waste land and is hardest hit by recent change (eg transport changes with closure of Iron Bridge, and present restricted use of Free Bridge), and economic changes with closure of all local industries). Developments like these were compounded by the damage wrought by the major landslip of 1952-3. In addition, Local authority redevelopment schemes often involved rehousing outside the area.

Original settlements each had distinctive economic base- pottery concentrated in Jackfield itself, mining (and then ironworking) at Calcutts etc. Some diversification followed (Calcutts ironworks 1767, brickmaking) but during the eighteenth century these industries were carried out on a relatively small scale. The pottery industry was domestic- kilns were attached to cottage rows, though there were already some larger units by the early eighteenth century (see Broseley Hall estate book). The communities were oriented to the

river, this generating also a domestic economy of inns, brothels and lodging houses. These accounted for some of the larger buildings of the area.

These settlements had a distinctive form- the buildings formed dense clusters, as development was continually concentrated into the small early plots. Competing land uses reinforced this crowding, the area of settlement did not expand as much as it was built up- surrounding land was increasingly exploited for industry and agriculture. seventeenth and eighteenth century buildings were small, though did use professional builders, showing that these were not marginal settlements.

This early history is typical of the Gorge as a whole, which up to the end of the eighteenth century formed a series of industrial villages, clusters of settlement closely associated with particular industries or economies. This pattern was changing by the end of the eighteenth century: the development of larger factories which displaced the earlier domestic economy- the scale of industry increased first through diversification, then through specialisation. The effects of this development on land use and social structure are visible in Jackfield. The new factories were more land hungry than their predecessors, and they not only used more land, but they made more waste. Employment patterns helped break down the old estate pattern; a factory based economy brought about changes in the relationship between home and work- and smaller domestic units as work was concentrated outside the home. This development was especially clear in the replacement of riverside pubs and the subdivision of larger houses into small units. Development of railway benefited industry, but involved the destruction of a great many houses.

As the Gorge emerged as an industrial district through parallel changes of this kind in other areas, and took on some of the characteristics of an urban area focused on Ironbridge, new relationships between its communities were created. In this process, Jackfield became something of a poor suburb. It was furthest away from Ironbridge, in terms of the new communications network focused on the bridge; it was the area of heaviest and most concentrated industry- contrast the investment in building for industry in the nineteenth century with other building. It never had retailing facilities to rival those of Ironbridge- but only the most basic level of provision. There seem to have been no purpose built shops-a series of adapted houses again compare with Ironbridge. Residential segregation- factory owners not living in the area (related to subdivision of larger houses).

These trends reinforced by more recent change: dependence on a limited industrial base led to local depression - poor building stock did not attract investment - the organisation of land around industry created large amounts of derelict land which had developed piecemeal with new housing, and there is a poor infrastructure of roads etc (all this of course compounded by the unusual added problem of a very unstable ground - to which industrial land use - mining etc may well have contributed). Local authority policies also put Jackfield in a wider context - rehousing largely outside the immediate area.

APPENDIX ONE: GAZETTEER OF BRICK AND TILE WORKS, JACKFIELD

(Note: a gazetteer, which includes more detailed study of several of the works has been published by N.M.Dawes (1979), to whom I am grateful for pointing out many of the sources on the works. In addition, Tony Mugridge has just published a further guide to local brick and tile works, supplemented with some useful reconstruction sketches).

AMPHLITT & CO

A firm mentioned in 1822 (Pigot) and 1828 (Tibnam) operating in Broseley. The location of the works is not known, although there is a field called "Amphletts Piece" in the Calcutts area.

THOMAS BLAZE

Brick and tile maker mentioned in 1822-3 (Pigots, Tibnam), in Broseley.

HENRY BOOTH

Brick and tile maker mentioned in 1822-3 (Tibnam, Pigots). John Booth is again listed in 1840 (Robsons) but with no location known.

BROSELEY TILERIES
NGR 682015 (BY 29001)

Built on site of Guests furnaces (Dawes 1979) the works were operated by John Onions from at least 1828 (Pigots) His son in law, P.J.Thorn was at the works by 1877, which had added encaustic tiles to the normal range of bricks and tiles.

After John Onions death in that year, the works were sold (SRO 2032) to Edward Roden, E B Potts and others with H.M.Bathurst as manager. The articles of association of the new company - Broseley Tileries Co Ltd list the subscribers as W.T.Jones accountant, Thos Griffiths Timber merchant, Henry Bathurst tile manufacturer, George Little Clerk in holy orders, Edward Potts solicitor and Edward Roden, farmer. The directors were dismissed by the shareholders in 1882 over allegations of mismanagement. Roden claimed that they had taken on the management after death of Bathurst and found wages too high so lowered wages, appointed agents in large towns and effected saving of £1 per day. The decision was upheld, and in 1882 the 184 shared held by the directors were advertised for sale (SRO 2032). In the early 1920s, the works were combined with Milburgh and Wallace as Prestage and Broseley Tileries Ltd, and closed in 1940 (Dawes 1979).

Products

It is claimed that the works were the original manufacturers of Broseley roofing tiles (W.H.Williams' index). By 1832 hand made roofing tiles, bricks and quarry tiles were made. PJ.Thorn was sending building brick, brown tiles, gable tiles, plain crests and plinth bricks to the wharf, to Coalport and to the Station for his agent Mr Beard.

The standard range of "roofing tiles plain pressed and ornamental in brown, brindled blue and red, Ridge tiles in red brown blue and stone flooring squares in red white and blue colours bricks for agricultural purposes, fire bricks burrs and squares" was advertised in Kellys directory of the building trades, and in 1892 business was reported good in all departments. The brand name adopted was BROSELEY TILERIES, although the stamp J.Onions

W. & P. JONES,

Brick and Tile

MANUFACTURERS,

JACKFIELD

BROSELEY,

SALOP.

'Sovereign Broseley'
—Roofing Tiles.—

Machine and Hand Made.

WILL STAND ANY CLIMATE.

Prestage & Co.,

BROSELEY, SHROPSHIRE.

All Colours Supplied.

Before placing your Orders send for SAMPLES.

BROSELEY

ROOFING AND RIDGE

TILES.

William Exley & Sons.

THE ROCK WORKS.

Broseley.

Shropshire.

"COALPORT" BRAND.

TELEGRAPHIC ADDRESS: "EXLEY BROSELEY."

JACKFIELD, BROSELEY, SALOP.

HOPLEY & DUNCAN

MANUFACTURERS OF

BROSELEY PRESSED

Rooking Tiles,

Crest Tiles,

Hips and Valleys,

&c. &c.

Communications to be Addressed—

CHIEF OFFICE, MADELEY, SALOP

JOHN DOUGHTY

MANUFACTURER OF

Best Broseley Pressed

ROOFING TILES,

Plain and Ornamental, of Various Colours,

CRESTS, HIPS AND CUTTERS,

FLOORING SQUARES,

FIRE BRICKS, &c.

BROSELEY, SALOP.

Telegraphic Address—"DOUGHTY, JACKFIELD."

Figure 48: Advertisements for Broseley Roof tile firms.

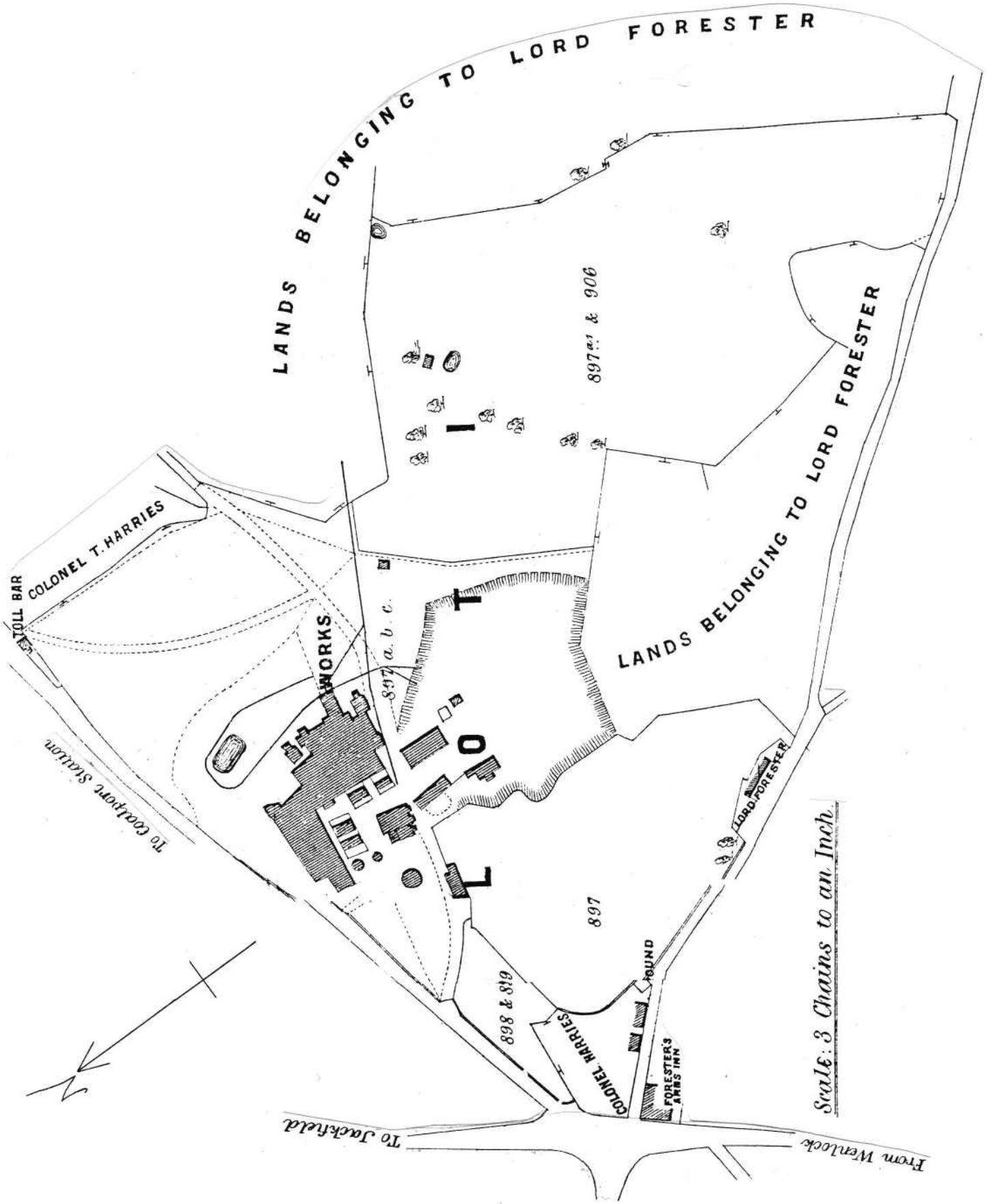


Figure 49: Map taken from sale particulars of Broseley Tileries. SRO 4001/p/1/35, surveyed by H.J.Wyley, Bridgnorth, Salop.

BROSELEY, SALOP.

VALUABLE

BRICK, TILE, AND ENCAUSTIC TILE WORKS,

MINES,

FAMILY RESIDENCE, &c.

PARTICULARS AND PLANS

OF A VERY IMPORTANT

FREEHOLD PROPERTY,

COMPRISING AN EXTENSIVE AND WELL SITUATED

BRICK AND TILE WORKS,

AND

ENCAUSTIC TILE MANUFACTORY,

INCLUDING AN AREA OF

21 ACRES,

Or thereabouts; together with the Valuable Measures of

COAL, BRICK, TILE, AND FIRE CLAY,

WHICH EXIST THEREUNDER.

PARTICULARS LOT 1.

The BRICK, TILE, and ENCAUSTIC TILE WORKS, &c.

No. ON PLAN.	DESCRIPTION.	QUANTITY. A.	R.	P.
897A.B.C.	Brickworks, Clay Pits, &c.....	8	3	2½
897A1 and 906	Part of Pound Meadow, &c.....	8	2	19
897A2	Remainder of Pound Meadow.....	3	2	2
898 and 899	Garden	0	1	33
837D	Garden	0	0	4½
		21	1	21

The above is well situate, adjoining excellent roads, and distant about 1½ miles from Ironbridge and Coalport, both first-class Stations on the Severn Valley line. Under a large portion of this Lot exist very valuable Measures of Coal; Brick, Tile, and Fire Clay. There are two nearly new "Down Draught" Kilns (the flues of which are carried to a stack 84ft. high), each capable of burning upwards of 36,000 Tiles; also two Kilns, each capable of burning about 20,000; and one Oven for Quarries, &c., adjoining, which are very extensive drying Sheds and Stoves, Stacking Sheds, Moulding Rooms, &c. Two Circular Kilns, used for burning Encaustic Tiles, with Press Rooms, Drying Stove, Dust and Damping Rooms adjoining; also Slip and Segar House, containing two Slip Kilns, Encaustic Tile Shops, Glazing and Slip Kilns, with Press Room for Vitreous Colors, and Warehouse over same. Stabling for six horses, Cart-houses, Offices, Machine House, Pattern Rooms, &c. A very large business has been most successfully carried on for many years at these Works in all kinds of Broseley goods, and recently Encaustic Tiles have been manufactured of excellent quality, and to a considerable extent. The whole is now in full work, and is offered for sale in consequence of the death of the late Proprietor.

Tile Clay of a very superior quality and which is practically inexhaustible is obtained from a Pit close to the works. The Purchaser may continue to use this Bed of Clay on payment of £12 per annum, and maintaining the Engine, Boiler, Machinery and going Gear of the Pit in good working order and condition.

The late proprietor's yearly tenancy of the Caughley Coal Pit, which is connected with the Works by a Railway, will also be included in the sale of this Lot. Under the Tenancy the Royalty paid to the Landlord is 1s. per ton for Large Coal, and 8d. per ton for Small Coal, and there is not any Dead Rent.

The Fixtures, Machinery, or Plant not included in the above will have to be taken and paid for by the Purchaser, according to a List and Valuation which will be produced at the time of Sale, and in the meantime can be inspected at the office of Messrs. Gordon, and Nicholls.

Figure 50: Details of Sale, Broseley Tileries, 1877. SRO 4001/P/1/35.

1832 Broseley is well known.

Encaustic tiles were manufactured in the 1870s, the buildings for which included "two circular kilns used for burning encaustic tiles, with press rooms, drying stove, dust and damping rooms adjoining, also slip and segar house containing two slip kilns, encaustic tile shops, glazing and slip kilns with Press Room for vitreous colours and warehouse over same". Encaustic tiles were still advertised from the works in 1901 (Architects Compendium).

A new product - Broseley Diamond paving tiles - were introduced in 1901. Claimed to be effective as tessellated and encaustic tiles at one third less cost, they came in red, grey, buff and chocolate and cost per yard as opposed to 5/- per yard for encaustic tiles (Architects Compendium 1901).

Tiles were supplied to the Home and Colonial offices, Parliament Street, to the Royal Academy, Burlington House, the Law Offices, Lincolns Inn (Randall 1879) and a large order of 3 million tiles to the Osborne Training College, Isle of Wight.

Technology

By **1838**, the Broseley Tileries were the largest works in the Jackfield area. The Sale particulars of 1877 note two nearly new down draft kilns with a capacity of 36000) tiles, two kilns (20,000), one oven for quarries, drying sheds, stoves, stacking sheds, moulding rooms. A tramway was laid between the pit head and the works in 1882 (Dawes 1979:) but there never seems to have been a tramway link with the railway, and the works continued to rely on road transport. There was a tramway link to Caughley Coal pit, and tile clay came from close to the works. The works operated the Deep Pit, raising clay from 300 feet by a Watt engine, in operation until 1940. The mines were the deepest in the district.

COALFORD BRICK & TILE WORKS
(later Excelsior Roofing Tile Works)
SJ 682031, (BY 06005)

There was a works near the Coalford Chapel in operation by William Finney in the late 18th century (Randall 1879:151). However, the works at Lloyds Head were operated by the Davis (sometimes spelt Davies) family. Mr William Davis was a brick and tile manufacturer in 1814, and leased a coal work from Mr Brodie (1681 box 188). Thomas Davies was at the works from about 1822 (Pigot) and joined by William Davies by 1836 (Pigot). In 1844 William Davies divided the works between his sons Thomas & George and Hezekiah Hartshorne. Enoch Hopley was at the works by 1879 (Randall 1879:152) and was succeeded by the partnership of Thomas Hopley and Robert Duncan, who by 1889 were members of the Broseley association. W.& P. Jones were at Coalford by 1901, and in 1932 the works were acquired by Tom Jones who sold them to Craven Dunnill in 1936 (Williams'index). They closed c. 1940 (Dawes 1979).

In 1837 William Davies works produced "at least 900,000 flooring bricks and tiles besides malting tiles, firbricks etc", and at this date may have been the largest in the coalfield. Roofing materials had become a staple by 1870. when "Blue, buff and red tiles, crests, ridge ornaments, coping bricks, chimney tops, water pipes and floor squares." were made (Kellys). By 1879 pressed bricks of all kinds had been added. The brand name EXCELSIOR was in use from about 1900 onwards. William Davies' products were used in the construction of "his new house at Lincoln Hill" (Randall

1879:152).

The company possessed machinery "capable of turning out 30-35000 tiles per day, and employed 80-90 men and boys including 13 clay getters in 1908 (VCHi:443). W.H.Williams saw the remains of the works in 1967, and described 5 intermittent down draft kilns and one round one. Underfloor flues heated the drying sheds and machinery was pug mill, bat machine and crusher. A tram road ran along the new road and transported products to rail siding.

COALPORT BRICK & TILE WORKS
(The Gitches or Gitchfield)
BY
These were established by Joseph Exleys of the The Rock works in 1893 (Builders Ironmonger 1922:199) as an expansion of the works, which were fairly cramped and some distance from the railway line. The works were larger than those at Jackfield. The company also built cottages for their workmen close by the works.

By 1922 the works had electric light, allowing work to go on day or night, and their own sidings. One of the five drying floors alone measured 220 feet long and 40 feet wide and accommodated a million tiles . The machine for making ridge-crest tiles said to be one of the largest in the trade "having a steam cylinder 36 in in diameter." Valley tiles, hips and angles were all made by special machinery. (and Builders Ironmonger September 1922: 199-201). Clay was got from the hillside behind the works. The buildings were taken over by Wolverhampton Metal Co, and later demolished for the construction of the Gitchfield Sewage works.

COALPORT STATION BRICKWORKS??
(BY 57101)

A small brickworks is shown on the 1902 OS map, by the Coalport station. By then it is out of use, but it is not shown 1883.

CRAVEN DUNNILL ROOFING TILES

Although principally manufacturing encaustic tiles, Craven Dunnill advertised roofing tiles in 1924 and 1927 (Where to buy). That they were not members of the Broseley Roofing tile association suggests that they did not actually manufacture tiles. In fact they shared a railway siding with Prestage's in 1921 (SRO 2032) who may have provided the tiles.

JOHN DOUGHTY & SON
(Calcutts brick and tile works)
SJ 685028 (BY 06509)

First mentioned in directories in 1840 (Robson) although Randall claimed that the works dated back to the beginning of the 19thC (VCHi). Theophilus was the first member of the Doughty family to make bricks at Jackfield. He was still there in 1851, succeeded by John Doughty - a member of the association in 1889 and 1901, and by 1931 the firm John Doughty & Co. The works closed in 1939. Evidence for the fifth report of the Children's Employment Commission was given by several children who worked carrying clay and tiles, or in the kilns.

"Broseley roofing tiles, pressed and hand made crests, ridge, hip and gutter tiles, wire bricks and squares, fire bricks squares and burrs" were advertised in Kelly's directory of 1879. The range was similar in 1901.

The trademark used was J.D. & S. although bricks were stamped J.Doughty (Dawes 1979). By 1908 the staple trade was roofing tiles, and from 1928-31, coloured advertisements in the Building Trades Catalogue only mention tiles in brindle and red. Buildings included the secondary school in Bridgnorth, and buildings as far away as Hallifax, Kings Norton and Crewe.

There is some suggestion that pressure for space caused Doughty's to cramp their works (letter from D.L.Prestage).

THE DUNGE
SJ 682014 (BY 35901, 36201)

Established in 1811 according to their advertisements, the firm was run by Richard Poole from at least 1828-44 (directories), and by 1879 George and Francis Davis (Kellys). George Davis alone ran the works in the early twentieth century, although they closed soon after George Davis' death in 1903 (Dawes 1979). Map evidence shows that the works originally lay around the two standing buildings on the present site, but were rebuilt between 1838 and 1883 on a new site.

In the early days, the works manufactured bricks using the deposit of glacial clay on which the site stood. By 1879 the standard range of pressed and hand made roof tiles, ridge hip and valley tiles, flooring squares and firekiln goods, which continued in 1900. George Davis reputed to be first to introduce machine pressed tiles (Dawes 1979:52). It may be that the works were rebuilt specifically for the change from brick manufacture to roof tile manufacture - and was one of the earliest firms to do so (Pickering 1988).

HOLLYGROVE TILERIES
SJ 682029(BY 05410)

Randall traces the site back to 1584 when Beards of Coleford on Severn leased the land from the Lacons; it was leased to Philip Reynolds in 1657, and again in 1697 for 91 years. The works were reputedly the earliest in the area, but the date of construction is not known. The brickworks were leased by Brooke Forester between 1770-1791 and in 1792 John Bearde, and then Elizabeth leased the works to Samuel Roden from 1813 and 1824 (1879:150). They were actually operated by John and Thomas Roden from at least 1828 to 1844.

In 1863 a tileworks (rather than the land) were sold by Robert Evans to John Morgan. During his ownership, somw 25 children were employed. In 1867 John Bennet Lawes leased a brick and tile yard formerly occupied by Morgan. Buildings at Hollygrove were leased by John Wilkinson to Richard Haughton in 1884, who in the 1890s had enormous problems with the works. At first he blamed the scarcity of clay, insufficient capital to lay down new equipment and did not join the masters association in order to charge his own prices. Despite new clay, the tiles continued to crack (SRO 1242 Box xi.3).

In 1905 Hollygrove Tileries Ltd was advertised with capital of £3000 to carry on the works of E. Webster and E.J.Wase (BCW 1905:64). The advertisement indicates that encaustic tiles were made. By 1908 the works had been split between Haughton and William Jones of Calcutts House (VCHi:443)

The 1867 schedule (Dawes 1979) gives detailed list of plain goods (tiles, bricks, floor tiles, and various draining pipes) and the royalty paid on

NOTICE

Broseley Roofing Tiles

GENUINE BROSELEY ROOFING TILES are made from the Celebrated Broseley Clay found only in the immediate neighbourhood of Broseley, Shropshire. The seam of Clay from which these Tiles are made is mined at a considerable depth, in some cases more than 100 yards from the surface. GENUINE BROSELEY TILES are branded "BROSELEY," and carry with them the Manufacturer's guarantee as to durability.

JOHN DOUGHTY & SON,

Manufacturers of best PLAIN and ORNAMENTAL

BROSELEY ROOFING TILES

and FITTINGS in various Colours.

TRADE **J. D. & S. BROSELEY.** MARK.

As supplied for the LONDON SCHOOL BOARD, and amongst the many recent PUBLIC BUILDINGS, LANGHO EPILEPTIC COLONY, MONYHULL COLONY, WHALLEY ASYLUM, and KING'S NORTON UNION INFIRMARY, where upwards of 2 millions of our Tiles were used.

Postal Address: BROSELEY, SALOP. Telegrams: "DOUGHTY, JACKFIELD."

Nat. Tel. 7, Iron-Bridge.

THE

BROSELEY TILERIES Co., Ltd.

(Late P. J. THORN). ESTABLISHED 1760.

Manufacturers of Roofing Tiles, Ridge Tiles, Pressed Floor Tiles, and all kinds of Brick-Kiln Goods;

ENCAUSTIC, GLAZED, AND GEOMETRICAL TILES.

For Churches, Public Buildings, Halls, Vestibules, Corridors, &c.

London Office and Sample Room:
10, ARTHUR STREET WEST,
LONDON BRIDGE, E.C.
Agent: ROBERT L. HUXTABLE.

Manufactory:
BROSELEY, SHROPSHIRE.

The Goods manufactured by this Firm are made from the celebrated Broseley Clay raised from their mines, which are the deepest in the district, being more than one hundred yards deep. The clay, when brought to the surface, is as hard as stone, and has the appearance of rock, the great depth from which the clay is raised being the secret of the hardness and durability of the Broseley Clay Goods, a fact which gave rise to the well-known proverb: "As hard as a Broseley Brick."

PRICE LIST OF

BROSELEY ROOFING TILES.

RED, STRAWBERRY, or BRINDLED.

Delivered into Trucks at Coalport or Ironbridge Station, G.W.R.—or Coalport Station, L. & N.W.R.

			APPROXIMATE WEIGHT. T.	C.
Best Pressed Plain Tiles, with nibs and holes	40/-	per 1,000	1	0
Do. do. Ornamental do. do.	42/6	,,	1	0
Do. do. Gable Tiles do. do.	80/-	,,	1	10
Do. do. Eave Tiles do. do.	40/-	,,	0	15
Hip Tiles	3/6	per doz.		
Valley Tiles	3/3	,,	1 ton	
Angle Tiles, Plain	4/-	,,	per 600	
Do. do. Ornamental	4/6	,,		
Plain Ridges, 12 in. lengths	2/8	per doz.	1 cwt.	14 lbs.
Roll do. 12 in. ,,	4/-	,,	1 cwt.	6 lbs.
Ornamental Ridges, in a variety of designs, from	7/-	,,		
Quarries, 6 by 6, Red and Blue	8d.	per dozen.	1 qr.	4 lbs. per dozen.
,, 8 by 8, ,, ,,	1/-	,,	2 qrs.	10 lbs. ,,

THE

NEW BROSELEY DIAMOND PAVING TILES.

As Effective as TESSELATED & ENCAUSTIC TILES, at one-third less cost, and may be laid as ordinary Quarries.

Patterns in Red, Grey, Buff, and Chocolate ... ... 3/6 per square yard.

Sheet of Designs on application.

Packing in Casks, 6d. per square yard. Packing loose in Trucks, 3d. per square yard.

These Tiles are made ¾ in thick, and weigh about 1 ton per 35 yards, packed loose in truck, or, when packed in casks, about 1 ton per 29 yards.

ALL BREAKAGES IN TRANSIT AT PURCHASERS RISK.

Encaustic, Geometrical, and Tesselated Tile Pavements

Figure 51: Broseley Roofing tile advertisements.

them. During the 1870s, John Wilkinson a Posenhall farmer took over the works, and "gave up the manufacture of the heavier classes of goods" in order to concentrate on other products. When the works were advertised, it was to "to carry on business of manufacturers of plain, embossed, majolica tessellated enamelled encaustic and decorated tiles etc" although there is no other evidence that such products were made here.

Some insight into working methods in he 1860s comes from the Children's Employment Commission. Jonas Jones was the manager, and the system seems to have been that the fireman contracted with the master to get the bricks made and burnt. Men were paid by the quantity of bricks or tiles they made, although whether by the master of the fireman is unclear. It was the only yard to have a privy. A moulder would make between 11000 and 14000 tiles per fortnight.

HOLLIWELL WORKS
SJ 68120219(BY 18402)

Associated with Stable Hill colliery, on land belonging to Jenkins just south of the Rock works. The works were operated by Oakes and Pumford, who clearly had problems and closed down by 1898. Despite this they continued to lease clay from Major Jenkins, to the disgust of D.L.Prestage who claimed to have found the clay in 1885, and who was more in need of it. Oakes and Pumford tried to get a third partner (Mr H Weldon) with sufficient capital to carry on a tilery in 1903, but his bankers were rather vague about his references. Nevertheless, Oakes and Pumford were able to lease the land for a further 30 years in 1904. (SRO 1681 Box 189).

LADYWOOD BRICK AND TILEWORKS
SJ 697031 (BY 036)

The importance of the Ladywood area is that it is within reach of both the white fireclays on the surface at Benthall, and the red brick and tile clays of Jackfield. So works were able to advertise both fire bricks and roof tiles. There are three sites in Ladywood at which bricks and tiles are known to have been manufactured:

1. Ladywood White Brickworks
There was a small white brick works opposite Bedlam, and located between the hairpin bend and Ironbridge station (Randall 1879:149). The works were operated by Thomas and John Smith, passing to Thomas Birch and James Davies by 1820. The site was acquired by Burtons, but destroyed during the construction of the Severn Valley Railway.

2. Harrington's Hovel
Between the river and the gas works, Harrington had a round hovel where he burned is bricks, later moving the site higher up (VCHi:443).

3. Ladywood Red Brickworks (Cherry Tree Hill)
This is most likely the site mentioned in a lease agreement between Brooke Forester and Humphrey Harrington in 1761 to "raise clay and sand for making building bricks and also firebricks". The clay came from land in the occupation of John Amphlitt which may have been Amphletts piece near the Calcutts. By **1838** the site was occupied by Samuel Roden, who may have been working there since at least 1827 (Pigot) although Harrington & Greenwood are another possible partnership (Pigot 1828). A Harrington was making bricks and tiles here in 1862, but John and Edward Burton of the nearby Benthall brickworks had taken over the site by 1874 (Casseys) and by 1933 C.R. Jones occupied the site. The works were closed in 1939 (Dawes

1979:54) and were demolished by 1963.

White firebricks must have been made from clay got a little to the west of the latest site. In 1862 Harrington gained a medal at the Exhibition for making over 100 different varieties of architectural crests and roofing tiles (VCHi:443). Roof tiles were still in production up until the 1930s, when Mr Jones closed the section down. Clay was sold from the site by C.R.Jones,who ground it and sent it for making saggars in the pottery centres (Geol. Survey 1920). Clay came from a pit half a mile east of the station, and was worked in the pillar and stall method. In 1895 improved steam machinery was installed at the site.

MAWS ROOF TILES

The encaustic tile manufacturing firm was producing some bricks and roof tiles. Bricks stamped MAW were probably for the use of the firm (Dawes 1979), and the brothers were members of the Broseley association in 1890.The firm established a brickworks at Jackfield before the main works were constructed, probably using the works to provide bricks for the buildings. See also Tuckies Brickworks, and chronology in inventory (BY 47510).

MILBURGH TILERIES
SJ 683026 (BY 06513)

Founded by Thomas and Franklin Prestage of Broseley tileries in 1870 "for the introduction of external ornamentation at the same time as making staple articles of the district the bases of the business".

The works were purpose built, and designed to incorporate the latest technology for the plastic process (described in detail in Dawes 1979:36). They were the first to introduce "up and down" firing in the gorge, and spent money on experimental work and new types of machinery. Production was 4 million tiles per year in 1908 (VCHi:444). The brand name was "Sovereign Broseley" was used, and the products typically machine made tiles.

THE ROCK WORKS (EXLEYS)
SJ 683027

A brick and tile works on this sitwas occupied by Hezekiah Hartshorne in **1838**, who may have succeeded John Hartshorne there in 1828, although it is claimed that they were started by William Exley c. 1840s (Builders Trade Journal 1922:199). By 1891 the works, operated by the Exleys, were one of the most important in the area. Joseph Exley was there by 1900, and by 1922 Arthur and Ernest Exley. In 1939 the firm of William Exley & Sons, was employing 75 men and boys. The works closed c1940.

By 1890 terra cotta chimney tops and cane coloured glazed sinks were added to the standard range of machine made roofing tiles, ridge hip valley etc and stoneware socket pies (Kellys 1890). The brand name in use was "Coalport". Hand made tiles continued to be a speciality, and were in great demand in the 1920s. Earthenware, and perhaps early encaustic tiles may have been made at this site.

At the beginning of the century the works were one of the largest manufactories; clearly highly modernised and of high repute, (VCHi:443) with advantage of being close to the railway. They were described in detail in 1922 when the two works combined produced 250,000 finished tiles a week, with "the most modern and efficient plant of tile-making machinery,

embracing rolling, pugging, bat-making and pressing machines". There were 14 down draught coal fired kilns. In 1903 Edward Exley appeared at a trial, discussing a tile making machine with two mouthpieces (BCW 1903).

Local buildings included the Broseley Church (which is stone) and the Forester Trust hospital in Much Wenlock. The Roman Catholic Cathedral at Cambridge was roofed with their tiles, as was the Vladimir Palace at Petrograd and the palace of the young king of Spain Alfonso xii ("in the latter case the tiles were fixed on the roof some few years prior to his majesty attaining his majority with a view of their toning down to the right colour") and the railway station at Buenos Aires (BCW June 1882:63, Architects and Builders Ironmonger 1922:201).

THE TUCKIES BRICKWORKS
SJ 692025 (BY 47510)

Reused as a chemical works, and then demolished prior to the construction of Maws new factory in 1883, a small brick and tile works operated on the riverbank here by William Taylor, recorded in directories in the 1840s (Robsons). Details of the different phases of construction in this brickworks are given in the inventory of sites.

WALLACE TILERIES
SJ 689027 (BY 45501)

Purpose built by D.L.Prestage of Milburgh tileries, the works were set up to produce tiles through the new semi-plastic process in 1889 (described in detail in Dawes 1979:41). The site was close to the Severn Valley Railway, and clay came from a deep shaft close to the works. There were problems with shortages of clay there in 1903 (SRO 1681 Box 189) and they closed. In 1900 what was considered to be the first tunnel drier to be used for drying roofing tiles was installed here, and the works were some of the first to use gas as a motive power.

APPENDIX TWO

Jackfield Pottery inventory

Two inventories exist for the equipment at the Jackfield pottery; one dated 1854 attached to a lease between George Wootton and Robert Yates, and another dated 1860. Both are located in SRO 1681 box 189. The latter is transcribed in Rimmel 1984. The former runs as follows:

The Schedule above mentioned:

3 Mangers and 2 hay cratches, 2 cast iron flags with quarries and ... raising large slip pump, 2 Shad Ash Blungers, Blunging tub Cock, tub and runner, lead piping from wall to Cistern . Slip kiln pan, 1700 saggers, 3 step ladders for kiln, 5 iron coal boxes...
rakes, pokers, rods and tools, 2 dipping tubs and leads, a dipping tub with under lead, large mill tub rockingham mill tub, placing bench, 6 ware pens with uprights, stove pots and fixings, 2 pair head roads, knocking tup and stills, 20 dezen snip and handle dods, quantity of figure moulds, 10 doaen teapot spouts and ladle moulds, head poles about 70 feet, window wire screen, 4 workmans stools, 4 workmans benches about thirty feet long, wedging blocks, (Wirlers) and 2 stovepots and bars, bench 6 feet long, 6 tiers stylarding with uprights about 400 feet, 5 tiers stylarding 30 feet long uprights about 340 feet, 2 sets gathering pegs, throwing house, window guard, throwing wheel, rope bench and ribs complete, 2 wedging blocks and restpegs, pair head poles 42 feet, set of stylarding in cellar about 170 feet, clay flags and back boards Sagger bench 6 feet long,
wirler and bench water and dust bench, 8 saggar drums, quarry and back moulds and small sundries, 35 saggar boards, moulds and squeezing, box bench, fittings, dods etc, 1 set of stylarding about 140 feet pair pegs one outside, turners white slip pan set stylarding 160 feet, sifting tub . engine lathe and bench, common lathe and bench, chocks and nuts, slip pans, blowing bottles, 2 anvils, iron stove pot, 1 set head poles about 34 feet, 4 tiers of penning in boards, 32 handling and bat boards lot of shelving 18 or 19, 2 workbenches with wirlers new batting blocks stovepot, large pestle and mortar, head poles, lawns and rims, slip pot, sundry odd moulds and sets, 2 head poles iron pinned through wall 12 feet long 6 tiers of shelving with uprights, brackets etc, large stove pot, flue and chimney, Dish bench and wirlers, dish tools and shelves, wedging block, 4 stools, 2 pair peg posts, wedging and batting blocks with clay flags, boards to 20 dozen dish moulds, 250 ware boards, 2 workbenches with 5 wirlers about 280 feet, 10 dozen jug moulds, sundry other moulds, part of a throwing wheel, iron pump complete, 120 feet stylarding, 8 sets peg posts, Bank door, 1 set oval bakers moulds, 8 sizes, 1 set beaded oval moulds 6 sizes, 1 set round nappies moulds, 6 sizes, 1 set bakers moulds 6 sizes, 1 set beaded moulds 6 sizes, 1 set mandrin jug moulds, 1 set babes 9 in set, 1 set gamblers 6 in set. 1 set babes mugs 4 in set, 1 set portland mug moulds 5 in set, 4 bottle moulds 4 (sods), 1 pistol mould, set coffee pot spout and handles, set tea pots spouts and handles, 1 mignionette pot and stand mould.

Robert Yates
George Wootton.

APPENDIX THREE

Jackfield: Inventory of archaeological contexts

Notes:

1. Sites are numbered by parish and plot number. Within each context individual context numbers have been allocated. The first three figures of each number represent the plot, the second two the context number.

2. Numbers are based on plots shown on the 1902 Ordnance Survey Map. This is reproduced at the front of the report, and is a series of figures. It is also available at SRO, SBL and in the IGMT library.

3. Although nominally the report covers Jackfield, many relevant archaeological sites in the rest of the parish have been included.

4. The following dates have been used for standard map references:

   1621 - Samuel Parsons Map of Broseley
   1676 - Mining map
   1840 - Tithe Apportionment Map
   1882 - 1st Edition Ordnance Survey Map
   1902 - 2nd Edition Ordnance Survey Map
   1927 - 3rd Edition Ordnance Survey Map

MALTHOUSE (BY 00107)

See also Benthall report. Site of Malthouse, probably that occupied by barge owner Edward Owen by 1787 (SRO 1224/3/752), and formerly a lead smelter. Demolished.

RIVERSIDE FEATURES (BY 00108)

1840 map shows several plots and a route to the river side east of the present houses. The early road can still be seen, cut by a later route parallel to the railway and turning north west to the river bank. Stone retaining walls, and depressed area indicate former plot boundaries, as do limits of earlier coppicing. Presumably reflects former extent of Yates Coppice settlement.

STATION HOTEL ETC (BY 002-8)

See Benthall report.

CROPPERS HOLES (BY 005)

Site of four houses known in **1620** as Croppers Holes, referred to in Huxley family leases (see text). Whole area known in 1620 as the Coppice, and later as Yates Coppice.

SITE OF JOHN MILES POTTERY (BY 0??)

A round ware and flat ware work, located in Yates Coppice, near the railway (either Benthall Rails or the railway to Coppy Gate) (see text). Large quantities of pottery have been found during renovation of cottage (BY

01302), which may be material dumped from and probably near by the works.

OLD CLAY WORKINGS (BY 00901)

Site of open clay workings for Maws Benthall works between 1851 and 1883.

LEVEL (DISUSED) (BY 00902)

Level out of use by 1902, at south west side of plot.

CLAY WORKINGS (BY 010)

Old pit heaps, shafts, roads in field now ploughed. Clay pit and coal shaft in north western corner of field shown 1883. Hedgeline to north runs along outcrop of ironstone, which has clearly been mined to the edge of the field. Old Shaft, 1902. Extra plots to north shown on **1840** (435,436) may well have been cut away by mining.

SITE OF BRICK KILN (BY 01002)

Isolated brick kiln, presumably close to clay sources. Shown 1883, gone 1902. Some bricks visible in slope below site. Is this the site of the "Woodlands" Brick & Tile Works

SITE OF COTTAGES (BY 01101)

Plot of woodland in 1902, site of cottages on **1840** Tithe map.

WINDHOUSE BANK (BY 01201)

The site of a windhouse, coal pit and bank, **1840.** Presumably operating a steep incline, now difficult to identify in wooded area of quarries. Most likely the structure in illustrations 90,98 and 100 (Smith 1979), showing two storey engine house with chimney on skyline of Ladywood.

TRAMWAY (BY 01202)

A route leads west from approximately the bottom of the wind. Although the present route, shown 1902 but not **1840** relates to the Ladywood Brick and Tile Works, and seems to post date the use of the wind, an earlier tramway follows this route on the 1833 OS map. Early reference to railway near Coppie Gate (see Chapter Three).

SITE OF LADIEWOOD HOUSE (BY 01203)

House marked in 1621, on land just bought by Weld from Clifford. Rest of plot occupied by John Eves. Probably site of house giving name to plot.

14-16 STATION ROAD (BY 01301)

See also Benthall Report. Possibly John Eves house, c. 1621.

POTTERY, 14-16 STATION ROAD (BY 01302)

During renovation, large quantities of earthenware was found, mainly to the rear of the cottages. As much of it seemed to be dumped no controlled excavation was undertaken. The material was collected by the IGMTAU as BY87G and is presently being analysed, and mainly comprises press moulded and wheel thrown wares, with a chocolate brown glazed interior or a yellow

slip. Forms included shallow dishes, and wheel thrown straight sided vessels of large diameter with an everted lip, of a fairly coarse fabric. The buildings may relate to the pottery work of John Miles (SRO 1224/3/752).

RIVERBANK (BY 01401)

Much evidence of coal waste. Probable site of railways from insetts to river and "four wharf places" c. 1608 (see BY 021), located just west of 14 Station Road, and leading to small byelet with shallow gradient, now further eroded than **1840.** Old road parallel to and north of SVR seems to post date railway. Spoil banks at north eastern end of plot relate to railway cutting to south, Level area and bank in centre of plot.

SITE OF BRICK YARD (BY 01402)

Brick and tile "yard" by river bank at eastern end of plot, shown 1846, with path connecting it to Ladywood. Probably wharf area for dispatch of goods, out of use after construction of SVR. This may be where Harrington had a hovel where he burned his bricks "on the flat by the Severn".

SITE OF BUILDING (BY 01501)

Rough ground to south of railway line, by hairpin bend. Long building, post **1840**, shown 1902. Brick retaining wall, and fragments of stone visible. Function not known.

ROAD, NOW STATION ROAD (BY 01601)

Route from Ironbridge to Broseley, built c. 1828 as an alternative to Bridge Bank. The present route is that predating the SVR. with a slight diversion to the south at the western end. Railway shown along route in Turner painting of Bedlam (Smith 1979).

STRUCTURE (BY 017a01)

Post 1902 structure in use 1927, associated with levels (see below) and Ladywood Brick and Tile works. Traces of building foundations, concrete visible just south of hairpin bend.

DEMOLISHED BUILDING (BY 017a02)

House, built by 1840 (552) demolished by 1881. Other buildings on site built between 1902 and 1927 now demolished.

SITE OF ROPEWALK (BY 01701)

Marked as an Old Rope Walk in 1902, this was the site of the ropewalk operated in **1840** and 1844 by James Harrington, "Rope and Sailmaker". A second ropemaker, John Burroughs, operated in Broseley at the same time, and apparently at Ladywood in 1850. Burroughs employed 13 men & boys in 1861, and 16 men and 10 boys in 1881 (census). Originally extended further west.

LEVELS (BY 01702)

One level 1883, two 1927, with short tramway north of Ropewalk. Probably late/Ladywoood Brick & Tileworks levels.

REMAINS OF SHAFT & ?VENTILATOR (BY 01703)

Circular brick lined shaft with square capping, pierced by circular opening now blocked. Adjacent to engine base with two bolts and shaft. All located due south of hairpin bend, at about level of Ropewalk. Probably ventilation shaft and blower for levels BY 01702.

AGGLOMERATED PLOT (BY 01801)

Single plot, was three small plots **1840.** Indicative of pre-1840 plots or gardens.

FIELD (BY 01901)

Part of Lacons estate, c. 1621. Probably mining under it. Northern boundary of plot cut away by quarrying.

LADYWOOD/YATES COPPICE (BY 021)

Wooded slopes of gorge, with outcrops of coal, ironstone and clay, characterised by much mining activity. Name derived from house on site (pre 1621), and originally only referring to part of woods. Remains of early coal mining adits are probably overlain by the large scale extraction of ironstone in the 18th century. The cliff edge at the top follows the ironstone outcrop, and may in fact have been created by massive quarrying. Several deep shafts and adits continued to operate until well into the 20th century. At the southern and eastern end of the plot clay mining adits and open quarries have considerably altered the original landscape, obscuring documented tramways and probably earlier workings.

Far more field work is necessary to relate the geology to individual mining operations, the result of which could be an important statement about the relationship between different types of mining through time. Such work could establish the extent to which the existing cliff lines are natural or man made, the seams which were most worked, and the location and nature of spoil heaps.

SITE OF BLACKSMITHS SHOP (BY 02101)

Small blacksmiths shop, shown **1840** just south of BY 013. Present 1902 gone by 1927.

SITE OF INSETTS (BY 02102)

Four insetts dug by Clifford c. 1608 with railways leading from outcrop to Severn. Marked 1620 map, entrances south west of BY 013, on Best, Randle & Clod outcrop, probably destroyed SVR.

PLATFORM (BY 02103)

Level area, part way up slope in Ladywood, clearly associated with mining, probably 18th century in date. Access via an inclined route at the eastern end. Below the platform are the outcrops of Best Randle & Clod Coal, above it the New Mine and Pennystone Ironstone outcrops.

SHAFT (BY 02104)

Just south of road behind brickworks. Still in operation 1927.

LADYWOOD FIRECLAY MINE (BY 02105)

Abandoned 1939 (Abandoned Mine Plan No 12723); produced "dressed, pinkie and gaynie clays" (Brown pers comm).

CLAY MINING EVIDENCE (BY 02106)

At least 7 adits are shown in the south eastern area of the plot. The adits lead into the clays of the Hadley Formation and were probably associated with brickmaking. No trace of the adits are shown 1902, but many may have been more recent. Evidence for adits disappears remarkably quickly, and so those noted by the geological survey were probably 20th century. Nevertheless, brick making at Ladywood dates back to 1761, using local clays, and early clayworking must exist. There is much open quarrying for clay suggested by the lines of the cliff behind the works.

DEMOLISHED BUILDINGS (BY 02201)

Four houses built by 1840 (548c-f) and demolished after 1927.

DEMOLISHED BUILDINGS (BY 02301)

House, built by 1840 (548a) and demolished by 1881.

LADYWOOD HOUSE (BY 02401)

House, built by 1840 (550). Long range of buildings built in several phases. Original building is northernmost range, with rear parallel range later (1840x1881) extended to east. Main range is a two bay, two storey block, with two gable end stacks, the parallel rear range appears to be a slightly later addition (but pre 1840). Eastern extensions to a rear range comprise two sections, one of two bays, the second of a single bay. Possibly in use as separate dwellings though now all one.

DEMOLISHED BUILDING (BY 02501)

Building shown **1840** (581), but demolished by 1881 probably for railway construction.

SEVERN VALLEY RAILWAY LINE (BY 02502)

See also Benthall report, BY 446. Single track line, now preserved as footpath. Contractors Samuel Morton Peto, Thomas Brassey and Edward Betts. Bridges and tunnels by Matthews & Co, Stourbridge (McKelvey 1985:26).

COALFORD BRIDGE (BY 02503)

Iron railway bridge, single track with footway and hand rail on north side. Cast "Brymbo 186?" (either 1860 or 1868). Beam bridge, supported on two ?joists with a third for the footway. Now with modern railings on top to restrict traffic.

SITE OF WHITE BRICK WORKS (BY 02504)

Possible location of early Ladywood brickworks, located "between the Ironbridge and the hairpin" in operation at least 1787 to 1850s. Not shown 1840.

SITE OF BARNETS LEASOW FURNACES (?BY 02505)

Two furnaces blown in 1796 and 1801, built by Wright & Jesson and operated by Thomas Birch, acquired by Thomas Phillips (1812/5) and later Benjamin Ball for James Foster in 1821 (see text). Said by Randall (1879:123) to be under Severn Valley Railway. View in IGMT library (unnumbered) suggests higher location, on the south bank, just downstream from Bedlam. Large quantities of blast furnace slag occur around the Gasworks site but this could relate to the construction of the SVR. Analysis of 1841 Census/Tithe map shows the area known as "Barnets Leasow" to be located in the vicinity of plot 025 and to the north.

DEMOLISHED BUILDING (BY 02601)

House shown **1840** (575) demolished by 1881 for railway.

DEMOLISHED BUILDING (BY 02602)

Built 1840 x 1881. Demolished post 1927 for gasworks?

SITE OF GASWORKS (BY 02603)

Built 1872 for Broseley Gas & Coke Co, who took over from Ironbridge Gas Light Co. in supplying Broseley with gas (VCHxi). Remains of a clay retort visible today beside old railway line, the remainder of the area has now been levelled. The two gas holders can be seen in photographs held in IGMT library.

James Hedge, Gas Manager lived in Summer House, 1881 (Census).

RIVERBANK (BY 02701)

Steep area of bank below gas works site. Possible wharf site pre **1840.**

FISH WEIR (BY 02801)

Fish weir, known as Copie Wear, owned Clifford 1575, leased Huxley 1614, and sublet 1617 to Thos. Dawley with provision for repair, still in use 1694 (see text). Shown **1621**, and located just opposite Bedlam. "Robin" site (Pannett 1973). Traces of island still visible, in wide, shallow area of river.

JACKFIELD FERRY (BY 02802)

Located approx. 100m west of present Free Bridge. Shown 1982.1804. Short jetty from north bank, probably for use during summer only. Called "Adam's Ferry" (Randall 1879:85), and operated 19thC by Adam Crumpton.

DEMOLISHED BUILDING (BY 02901)

Group of 3 houses built by 1840 (576), dem. by 1881.

TWIN PINES (BY 03001)

House partly built by 1840 (then in use as office, 577a) added to by 1881. Built in two distinct phases, though only a two unit, two storeyed cottage.

FREEDOM COTTAGE (BY 03002)

Recent building in pastiche of cottage form.

SILVER BIRCHES (BY 03003)

Bungalow c.1950. Square in plan with hipped roof, a model used frequently in this locality.

LADYWOOD BUNGALOW (BY 03004)

Bungalow c. 1930.

SHAFT (BY 03005)

Post 1882/pre 1902, possibly associated Ladywood Brick & tile works.

OLD ROUTE TO SEVERN (BY 03006)

Traces of road, leading north west towards river, predating both SVR and existing road.

NEW BUILDING (BY 03101)

House presently under construction.

HOUSE (BY 03201)

House built by 1840 (583).

DEMOLISHED BUILDING (BY 03202)

House, built by 1840 (583?). Demolished after 1927. There were 6 houses on the site of these two buildings in 1840.

SITE OF DOG & DUCK (BY 03203)

Groups of houses comprising 3 houses, the "Dog & Duck" Inn and a shop in 1840, demolished post 1927. Original bulding was large timber framed mansion, inscribed C.A.M. May 30+ 1654, and assumed to have been built for Adam and Margaret Crompton. Adam Crompton's house with 7 hearths in 1672 Hearth Tax, shown **1676.** Timber framed, square panels with some decorative work in gables, probably hall and two cross-wing plan, though front elevation was three gables. Between c.1900 and 1939, the western gable was reduced in height and a new single ridge roof built across. Small early 19th century cottage adjoining west given half timber paint treatment at same time. 3 cottages by 1902. "Dog & Duck" demolished 1940. (1982.1804, 1984.691 and 1988.265).

HOUSE (BY 03204)

Built by 1840 (584).

DEMOLISHED BUILDING (BY 03205)

Pair of houses, built by 1840 (582), dem. by 1881 probably for railway.

DEMOLISHED BUILDINGS (BY 03206)

Pair of cottages built by 1840 and dem 1881 x 1902.

ROAD TO SEVERN (BY 03301)

Now B4373 leading to Free Bridge. Shown as terminus of Ladywood tramway on 1833 OS map. Route pre-dates railway, and probably also 1828 road, as lane leading down to wharves.

AINSWORTH HOUSE (BY 03401)

Built 1933 (ex inf Ron Miles).

SITE OF HOUSES (BY 03501)

Pair of houses built 1881 x 1902, and replaced by bungalow c. 1950 and house 1986 in pastiche cottage style.

SITE OF LADYWOOD BRICK & TILE WORKS (BY 03601)

Brickworks dating to 1761, closed in 1939 and demolished by 1963. Extensive works, shown **1840, 1882, 1902 and 1927.** Shown SRO 2267/10. Site now covered with vegetation, few building remains. Many tile fragments, stamped Ladywood.

Apparently a 3 storey structure for "putting clay in bags" somewhere to west of works (ex inf Tony Mugridge).

CLAY PITS (BY 03602)

Flooded clay pit, shown 1902, water now ironstained.

WELL (BY 03603)

Recent excavation to improve drainage has cleared a small well, shown 1902, still running. A vaulted brick structure, D-shaped plan c.80cm high and about 1.20m across.

PLATEWAY FRAGMENT (BY 03604)

Excavation to clear the well (above) has revealed a fragment of plateway, much twisted, and firmly anchored in the ground. The iron was very worn, with 9cm base, 5cm flange, and a single peg hole in the base. Relates to tramway shown 1833 OS from base of Windhouse (see By 012).

BALL'S LANE (BY 03801)

One of the earliest routes from Broseley down to River Severn, certainly pre 1828.

THE SUMMER HOUSE (BY 03901)

House, formerly an inn. Built by 1840 (542), in late 18th century. Tall two storeyed with attic dormers possibly inserted, rough cast render over brick, two unit plan with off-central doorway, cambered heads to small windows. Dentilled eaves. Two gable stacks, not projecting. Rear wing probably added, possibly not originally for domestic use, and perhaps associated with brewing.

DEMOLISHED BUILDING (BY 04101)

House or group of 3 shown 1840 (595 - a group of 9 houses) but dem. for construction of railway.

DEMOLISHED BUILDINGS (BY 04102)

Group of houses built by 1840 (596) and all but one demolished by 1881. Last building demolished by 1902.

SITE OF CLAY PIPE WORKS AND DEMOLISHED BUILDINGS (BY 04103)

Group of houses built by 1840 (598 - 5 houses and a clay pipe manufactory), demolished by 1883. Clay pipeworks was located under or just to west of south end of present foot bridge for SVR. Operated by Samuel and Mary Roden, Lloyd Head (Census 1841).

FOOTPATH (BY 04201)

Now leading from road to footbridge over railway. Moved very slightly west from original route after construction of SVR.

32 COALFORD (BY 04301)

House formerly two dwellings built by 1840 when it comprised a group of 5 dwellings (579). Part demolished after 1927. Now a single house, mid 18th century, two unit plan, symmetrically arranged, two and a half storeyed.

DEMOLISHED BUILDING (BY 04302)

Shown 1840 (580), dem by 1881.

FREE BRIDGE (BY 04401)

Designed by L.G.Mouchel and company, and built by the Liverpool Hennebique Company, the bridge consists of three reinforced concrete open-spandrel arches supported on two reinforced concrete pile piers and two abutments. The bridge was the first toll free crossing of the river in the area, and was opened on 26th June, 1909. Loading problems in 1937, in 1961, and again recently, have culminated in the removal of the parapet and the addition of a Bailey bridge to carry traffic. Ground cleared at northern end at the same time, to allow for turning traffic. One of the earliest reinforced concrete bridges in this country. See also Ferro Concrete, 1:1, July 1909, Concrete 12:7, December 1973 (Powell 1986).

Museum photographs 1982.2763, 1982.2762, 1982.1782, 1984.6054, 1982.3007, 1980.1646, 1982.1872.

PLOT (BY 04501)

Tiny riverside plot post **1840**, with no obvious logic. Seems to be location of considerable quantities of dumped tile waste.

44 COALFORD (BY 04601)

Row of cottages now a single dwelling, built between 1840 and 1881 (probably c1850). Formerly 4 cottages, built as a single development, each a single unit plan, with hood moulds to casement windows and ornate stacks (cf style used in Ironbridge c1850). replacing a building on the site in 1840, part of which may survive in rear house (589- house, workshop and brewhouse).

COTTAGE (BY 04602)

Cottage, built by 1840(part of 595), and probably early C18. Probably built as a detached single unit cottage with gable stack and gabled dormer to attic, later extended to east with large wide-span wing which now joins this building to its neighbour.

COTTAGE (BY 4603)

Cottage probably early C18. Originally a single unit with gable stack later extended by an additional bay to enclose the chimney, and provide a second bay beyond it, making this a two unit cottage with axial stack and central doorway.

COTTAGE (BY 4604)

Cottage, built at rear of 4602 (part of 595 on Tithe Map).

35 LLOYDS HEAD (BY 4605)

House, formerly engine house but also incorporating timber framed wall perhaps associated with former Coalford Hall? Engine house range is a square tall block, with chimney in rear wall, and chamfered spine beam. Adjoining block to west (part of 595 on Tithe Map) probably added early nineteenth century.

37 LLOYDS HEAD (BY 4606)

Pair of cottages now a single house. Built by 1840 (part of 594), probably in the early nineteenth century.

38 LLOYDS HEAD (BY 4607)

House, built to rear of 4607. Incorporates timber framed wall perhaps once part of Coalford Hall. Two cottages in 1927. Built by 1840, but probably as infill between existing buildings.

39 LLOYDS HEAD (BY 4608)

House, built to rear of 4607 and 4608. Originally an early eighteenth century cottage (single unit?) extended recently in similar style.

40 LLOYDS HEAD (BY 4609)

House, built by 1840, and apparently largely rebuilt in recent renovations. Two unit plan with central stack-probably originally two cottages. Two wide dormers to attic- but are these original or new? Part demolished after 1950.

41 LLOYDS HEAD (BY 4610)

Mid nineteenth century (by 1840) cottage, two unit plan, two storeyed.

42 LLOYDS HEAD (BY 4611)

House, built by 1840 and probably in early C18. Large two unit plan, one and a half storeyed, symmetrically planned. Parallel rear range probably a slightly later addition. Adjacent building demolished some time after c1950.

DEMOLISHED BUILDING (BY 04612)

House, built by 1840 and demolished some time after 1950. Formerly the Fountain Inn (ex inf Ron Miles).

47 LLOYDS HEAD (BY 04613)

House, built by 1840, formerly two cottages built in two phases, each a single unit. Earliest may be early eighteenth century, with smaller cottage a rather later addition. Part of larger complex of buildings until some time after 1927 (and see Tithe Map no 620).

COTTAGE (BY 04614)

Two unit cottage, probably early C19, with added bay to east. Extensively renewed (625).

DEMOLISHED BUILDING (BY 04615)

Group of houses built by 1840 and demolished with construction of railway (no 593).

DEMOLISHED BUILDINGS (BY 04616)

Row of cottages, built by 1840 (no 620), and demolished when railway was constructed.

DEMOLISHED BUILDINGS (BY 04617)

House, built by 1840 (622) and demolished when railway was constructed

DEMOLISHED BUILDING (BY 04618)

House, built by 1840 (no 679), and demolished when railway was constructed.

DEMOLISHED BUILDING (BY 04619)

House, built by 1840 (678) and demolished when railway was constructed.

DEMOLISHED BUILDING (BY 04620)

House, built by 1840 (645?) and demolished when railway was constructed.

DEMOLISHED BUILDING (BY 04621)

House, adjacent to BY 04611, built by 1840 and demolished some time after 1927.

PLOT (BY 047), PLOT (BY 048), PLOT (BY 049), PLOT (BY 050), PLOT (BY 051) PLOT (BY 052), PLOT (BY 053)

Group of houses and gardens, shown **1840**, and mainly demolished pre 1883, although that on 051 demolished after. Today plots amalgamated into one field, with rough grazing.

DEMOLISHED BUILDING (BY 05001)

Built by 1840 (601 a,b) dem by 1881.

BUNGALOW (BY 05002)

Built by 1950.

DEMOLISHED BUILDING (BY 05101)

Built by 1840 (602), dem. 1882 x 1902.

DEMOLISHED BUILDING (BY 05201)

Built by 1840(601c), dem. by 1882.

DEMOLISHED BUILDING (BY 05401)

House built by 1840 (607) dem. between 1902 and 1927.

HOUSE (BY 05402)

Built c1930 as a single development but according to a widely available model - hipped roof, two bay, two storeyed.

COALFORD CHAPEL (BY 05403)

Erected 1825. Wesleyan chapel. Small and simple construction with pedimented main gable in which a central door is flanked by round arched windows. Windows in east wall have timber lintels though west side is articulated into three shallow arched bays with round arched windows. Footings are memorial stones. Built of pale pink hand made bricks, with wide kiss marks, and occasional yellow patches. Front retaining wall of earlier orange/red hand made bricks, but butts existing structure. Tile roof (hand made). Photographic survey, IGMTAU, interior photographs in museum documentation.

SITE OF HOLLYGROVE BRICK AND TILE WORKS (EAST) (BY 05404)

The construction of the SVR, the growth and decline of the tile works, and subsequent building have changed this area (8.2 acres) radically since **1840.** Some of the area is waste, and much of the northern part of the plot is used as a lorry park and repair area. A stream now runs through the plot, emerging in the waste at the south end of the plot, and again just south of the Drying Shed and then disappearing underground. Course not marked on earlier maps. This is the brook running down from the Cockshutt Lane area (Chilkuns?).

Works demolished between 1902/27, were in two groups, to east and west of plot. Little now survives above ground.

COALFORD DRYING SHED (BY 05405)

One drying shed survives from the Coalford works to the east, built between **1840** and 1883. Of brick with machine made tile roof displaying finials and ridge tiles manufactured at the works, occasional patches of "beaver tails" and pierced by more recent roof lights. Internally little survives of the works - regular brick piers support roof trusses, a lorry entrance has been knocked through the northern end of the west wall. Possible brick boiler base stands at the south end, although the floor has apparenly been dug out since use as drying shed. Chimney stands at south end.

CHIMNEY (BY 05406)

A second square brick chimney stands about 30m to the south of the remaining drying shed.

SITE OF TRAMWAY (**1840**) (BY 05407)

Route of tramway to west of chapel, leading to river from Hollygrove Works, shown **1840.** Massive amount of dumping behind chapel has left no trace of this route.

TRACK (?TRAMWAY) (BY 05408)

Now a path leading from "Hollygrove" to the Coalford drying shed, the north end of the track forms a ramp about 3m wide, sloping towards the works in a regular fashion. Could well be a tramway route.

SITE OF HOLLYGROVE LEVEL (BY 05409)

Shown GS SJ60SE to south of plot. Red clay mine abandoned 1915 Mine plan no 6970 (Brown pers comm).

SITE OF HOLLYGROVE BRICK & TILEWORKS WEST (BY 05410)

More extensive portion of works, to the west, comprising a group of buildings, kilns etc, linked with a tramway to mines in Birch Batch.

SITE OF WYND ROAD PIT (BY 05411)

Shown GS SJ60SE. Red clay mine, abandoned 1913, plan no. 6053.

WYNDE OR WYNNE COTTAGE (BY 05412)

Perhaps once two cottages (2 doorways in main elevation, the other elevation blank). Very narrow span. Pre 1840 (637). Possibly engine or keepers house for a "wynde" leading down towards riverside, from coal pits to south west. The original route can be seen **1840**, but has now been altered by construction of modern road. The route pre-dates the 1828 road, and could well have been an early tramway. Investigation at this site was undertaken by the students of Wolverhampton Polytechnic.

98 A CALCUTTS ROAD (BY 05501)

Bungalow built after 1902, c. 1930.

LUTANA (BY 05502)

Bungalow c. 1950. 3 bays, square in plan.

HAVENTREE (BY 05503)

Bungalow c.1950, similar in plan to Lutana, built on same model.

KATOOMBA (BY 05504)

Bungalow c.1950 similar to above. Name taken from Sydney beauty spot.

RONDO (BY 05505)

Bungalow c. 1950, similar to above.

HIGH ACRE (BY 05506)

Bungalow c. 1950.

96 CALCUTTS ROAD (BY 05507)

House built 1882 x 1902. Two bays with rear wing, once part of longer range shown 1902 (note broken bricks in gable wall).

DEMOLISHED BUILDING (BY 05508)

Shown 1902, dem by c.1950.

96a CALCUTTS ROAD (BY 05509)

Bungalow, c. 1950.

SITE OF KNOWLES PIT (BY 05510)

Taken from GS SJ 60SE. Red clay mine, abandoned 1914 (M.A.P. no 10448).

FOOTPATH BY METHODIST CHAPEL (WYND ROAD) (BY 05601)

Steeply sloping straight track, partly in two levels. May have been an incline or wynd, relating to small building at the south end (Wynd Cottage). Fieldwork by Wolverhampton Polytechnic students (1986) revealed a fragment of plateway, stratified over "Excelsior" roof tiles of late 19thC date. Two rows of bricks laid end to end, with several bricks at right angles located just north of Wynd Cottage suggests some form of brick paving.

Probable route of "Horseway" in 1676. Good candidate for Clifford's wooden railway. By **1840**, there was a tramway route a little to the west, still in use after 1862 as indicated by the railway bridge by the Chapel.

SITE OF TUMBLING SAILOR (BY 05701)

Former riverside inn (dem. 1947) and bakehouse, now being almost completely rebuilt. Built by 1840 (625-6). Present building is small late 18th/early 19th century cottages, adjoining inn. Built in two sections, the first a single unit cottage later extended (axial stack, straight joint). Later additions to front elevation, possibly for shop. Tithe map records house, shop, building and yard on plot.

The Tumbling Sailors was divided from the cottage/bakehouse by a lane leading to the Severn. During excavation, a cellar entrance to the pub was visible. The foundations of the Tumbling Sailors were sitting directly on a coal seam, cut away to the east.

FORMER BAKERY (BY 05702)

Two houses built by 1840 (627). One reused as a bakery, later as a garage, and now demolished, prior to rebuilding on same building lines. Site of stables behind building on riverside. The bakehouse to the east was a small irregular building, its concrete floor sitting on a raft of "Excelsior" (i.e. post 1889) tile waste, although the walls predate the

tile fill. Fill removed from beneath the cottage to a depth of two metres revealed household rubbish (scraps of clay pipe stem etc) and clean black ash, but notably little pottery waste, indicating how restricted pottery making activity in Jackfield must have been.

BUILDING (BY 05703)

Single unit building built by 1840, possibly old boat store, converted to dwelling 1985-6.

HOUSE (BY 05704)

Built by 1840 (679) probably c. 1830. Classical style, two bay plan with central doorway.

BUILDINGS (BY 05705)

Group of buildings at least partly built by 1902 now in use as stores, but formerly shops. Single storeyed, built in 3 sections of hard red brick and tile with ridge cresting.

ROAD (LLOYDS HEAD) (BY 05801)

Evidence from "Tumbling Sailors" site indicates road is sitting on some 2-3m clean black ash, built up well above natural level. According to the owner, natural 'clay' was reached some 15' down, although this was not corroborated. The road takes its name probably from an adit or mine entrance (known as head or heading) and reflects the woodlands called the Lloyds on the opposite side of the road.

HOUSE (BY 05901)

House, once 2 brick cottages which formed part of a larger group, rendered over brick with mock tie rods painted on gable wall.

PENJENRAY (BY 05902)

Row of two cottages, now a single dwelling with axial stack, much renewed. Built by 1840, part of 361.

DEMOLISHED BUILDING (BY 05903)

House built by 1840, part of 631, dem after 1927.

DEMOLISHED BUILDING (BY 05904)

House built by 1840, dem after 1927, possibly an inn - see 1882 map.

DEMOLISHED BUILDING (BY 05905)

Pair of houses built by 1840, dem after 1927.

DEMOLISHED BUILDING (BY 05906)

Row of 3 cottages built by 1840, dem after 1927.

DEMOLISHED BUILDING (BY 05907)

Row of cottages built by 1840, dem for construction of railway (634).

DEMOLISHED BUILDINGS (05908)

Row of cottages built by 1840, demolished for construction of railway (part of 631).

DEMOLISHED BUILDING (BY 05909)

Cluster of houses built by 1840 and dem. after 1927, partly replaced by row of public authority housing 1950-60. 10 dwellings. Former cottages included Lloyds Head public house and grocers. Photographic evidence suggests that they were early 18th century.

BLACK SWAN (BY 05910)

Inn built by 1840 probably late 18th/early 19th century. Row of cottages adjoining dem. some time after 1950. Inn is a tall 2 storey 2 unit building with off-central doorway in classical case. Parallel rear range building to east formerly a malthouse, now part of accommodation.

DEMOLISHED BUILDINGS (BY 05911)

Group of buildings to rear of Swan built by 1840 and dem for construction of railway.

DEMOLISHED BUILDINGS (BY 05912)

Group of buildings to east of Black Swan built by 1840 (673-4) and dem for railway.

DEMOLISHED BUILDINGS (BY 05913)

2 rows of houses built by 1840 and dem by 1881.

CHAPEL ROAD (BY 06001)

Development of 10 bungalows on site of Coalford brickworks, built in 1937 for £250 (ex inf, Ron Miles). All built of bright red ruabon type brick, quoins to doorways and windows, the rest rough cast. Blue slate roof and tiled. Two basic models used, almost identical, but one uses tile for steeper pitched roofs.

1-6 CALCUTTS ROAD (BY 06002)

Row of semi-detached local authority housing built by 1950. Central doorway between service (pantry) and main room.

THE RETREAT (BY 06003)

Show piece building, perhaps originally office for brickworks, now a house. 2 parallel ranges, one of brick with red tiles and cresting, and a stack with blue and yellow brick to cap. The other perhaps a later addition and re-roofed in concrete tiles.

HOUSES (BY 06004)

3 bungalows, probably custom built with various decorative finishes to a similar plan. One is very plain, one employs classical finish, one in Spanish style.

SITE OF COALFORD BRICK & TILE WORKS (BY 06005)

Extensive brick & tile works, demolished post 1927 (except BY 05402), and built over by bungalows by 1937. One of the largest of the local brick and tile works.

CLAY PIT (BY 06006)

Large open clay pit to south of works filled in between 1902/27. One of the few pieces of evidence for open clay working in the Jackfield area. There could well have been much more surface working of clay in earlier years.

COALFORD BRICK & TILEWORKS RAILWAY SIDING (BY 06007)

Brick retaining wall for railway siding, extending along northern boundary of works. Machine made red brick repair at eastern end, to earlier mottled blue brick wall, c. 1.5m high, with cement capping at western end.

South of, and parallel with this wall, extends a massive wall of squared stone blocks, laid in irregular courses, over 5m high. At the western end is a well constructed return, and the wall extends in modern brick. The far end of the wall, adjacent to Coalford Chapel, is built of ?interlocking bricks. To the east the wall retains a massive dump of tile waste, and to the west supports the platform on which the Chapel Road bungalows are built.

PITS (BY 06008)

SJ 60SE, shafts. Presumably red clay.

SITE OF DUNDONALDS TAR WORKS (BY 06009))

Shown 1830 map, as a row of "twenty tar kilns with condensive registers, still house, etc" and now beneath 1-5 Calcutts Road.

TUDOR BUNGALOW (BY 06101)

Bungalow built on site of brick and tile works, c. 1950 in rustic style.

CLAVELLA (BY 06102)

Bungalow c. 1950. Very plain style, perhaps the basic model from which many of the other local bungalows were adapted.

96-97 CALCUTTS ROAD (BY 06103)

Pair of houses built by 1902 (southern part by 1840 number 665b, a rather crudely built structure). Northernmost building is a showpiece building using local products - scallop tiled roof, perhaps a small office building.

HOUSE (BY 06104)

House built by 1840 (667a-b), demolished between 1881 and 1902 in association with spread of brickworking.

SITE OF MAPP'S POOLS (BY 06301)

Referred to by Alderman T. Jones, 1953 (Brown pers comm). Supposedly pool providing water for old Calcutts blast furnace. See 1830 map.

95 CALCUTTS ROAD (BY 06501)

Cottage built by 1840 (662) possibly associated with former water mill, though present cottage appears to be mid to late 18th century. A small 2 unit 2 storey building.

LANDOUR (BY 06502)

Bungalow c. 1950, rusticated imitation stone, similar plan to Clavella on plot 061.

HILLBROW (BY 06503)

Bungalow, c. 1950. Similar plan to Clavella.

101-103 CALCUTTS ROAD (BY 06504)

Row of three houses, built after 1902 as a single terrace, each a single unit double pile plan. Very ornately decorated. Moulded brick dentils, blue brick window heads, hipped roof with ridge cresting and finials. Built as office and managers house for Rock Brick and Tile works.

SITE OF DOUGHTY'S BRICK & TILE WORKS (BY 06505)

Demolished after 1954, site now covered with much dump from cement works, scrub vegetation. One structure survives (see below).

JACKFIELD RAILS (NORTH) (BY 06506)

Tramway shown 1883-1927, leading from Milburgh Tile Works, to a siding with the SVR. on BY 444. On line of earlier tramway shown 1846 but not **1840**, leading to riverside wharf. Obvious depression for line in grass behind bus stop at the junction of Salthouse and Calcutts Road. Not the site of the Broseley Estate map railway.

13.9m of iron rails set in concrete 0.62m apart were located in the garden of Station Bunaglow by students from Wolverhampton Polytechnic.

SITE OF CALCUTTS OLD FURNACE (BY 06507)

Located about 20 metres south of Salthouse Road (1830 Calcutts map), the buildings seem to have been re-used by Doughty's brickworks. Level of site suggests foundations may well survive below ground. Buildings comprise, "Old Furnace, Smiths Shop, Carpenters Shops and Boring Mills". Building to north is, "Blast Engine on Glazebrooks principle". Whole area known as "Calcutts Waste".

BRICKWORKS "OFFICE" (BY 06508)

Post 1902 brick two storey structure with alternate courses of roof tiles and bricks in both north and south gable walls. Roof of "One and a half tiles", machine made, and stamped J.D.& S. Evidence for ?agricultural wooden partitions on lower floor; low tiled trough runs length of west wall, resembling a setlas, with supporting arches. Iron rings attached to pillars between arches suggesting use for animals. Stable with loft over it for Doughty's?

CONCRETE WORKS (BY 06509)

Site ruinous 1961, used as concrete works, by 1969. Whole area is covered with much debris, concrete and stone totally covering any remains of tile works. Massive supports for engine, and conveyer, survives, as well as an office building. A platform in the bank to the east may originally relate to the brick works, as the terminus for a tramway. More work needs to be done here.

BRICK STRUCTURE, WESTONS (BY 065010)

Single storey brick and tile building, shallow pitched roof in need of repair, at least four bays long. Northern gable wall with large garage doors, two chimneys on either side of door integral with wall. Brickwork suggests 20thC construction, possibly associated with Doughty's. Now used by Westons Portable Buildings, Jackfield as store/workshop. Shown as part of brickworks, 1961, but not 1902.

SITE OF 19TH CENTURY CALCUTTS PIT (BY 06511)

Another pit, referred to as Calcutts, is known from Mine records. It was operated by Maw & Co in 1891, with two 6' diameter shafts, mining red clay. (Brown pers comm, and in Wilkinson Society).

SITE OF LOWER OR CALCUTTS MILL (BY 06512)

Located in the formerly open area to the north of the Milburgh Tile Works, now used by Hornsey gates. 1830 Calcutts map suggests this to be the site of the lower mill, by **1840** site of mill pool and colour mill (660). By 1851 cement is made at the site (Census) and in 1861 "colour and cement" (Census). Out of operation by 1877. Located approx. 68370278.

SITE OF MILBURGH TILERIES (BY 06513)

In operation 1870-1940 (see Appendix One for operating details and products). Much of the site has now been levelled and remains under the car park for Hornsey Gates, who manufacture 5 bar aluminium gates in a series of buildings to the north. The site was used for aluminium recycling after World War 22, and the quantities of foil stored there prevented the engine being scrapped. In 1971 the two engines from the site were removed to Blists Hill by the museum, and now is in operation there. Substantial remains were noted and photographed by Dawes (1979), and other photographs remain in the Museum archive. Wall stubs of brick buildings survived until 1986, when they were levelled. Survey of remains of plateways in this area was undertaken by students of Wolverhampton Polytechnic. The site runs over the route of the former Jackfield Rails which were thus out of use by 1870.

MILBURGH CLAY PITS (BY 06514)

Mugridge describes two pits, one sunk 1870, another 1878. The first pit was wound by a horse gin, but an engine was installed for the second, as well as an engine for the pugging mill and later bat machinery. The first pit was capped in 1882. The pits were linked to the Wallace shafts and also the Guests Deep Pit (Mugridge 1987).

CALCUTTS ROAD (SOUTHERN PART) (BY 06601)

Seems to have been path or through Jackfield, c. 1833,**1840**, but originally turned north down past Wynd Cottage. Present road moved to the east post 1927. In use as a tramway linking mines north east of St Mary's Church with

Coalford Works 1883.

TRACK (BY 06701)

Short track between Calcutts Road and Ironbridge Road, now effectively northern boundary of "The Mount House". Could be 1833 tramway.

THE MOUNT HOUSE (BY 06801)

Triangular plot of land now occupied by Mount House, built between 1902 and 1905 and first occupied by a William Jones, who was perhaps associated with the Ladywood Works. Two storeyed with attics, three bay plan, heavily decorated; dark red brick with blue and yellow eaves band continued over gable, blue and yellow corbelling to chimney, yellow quoins and sill bands. Ridge cresting. Built as a shown house for local brickworks products.

A shaft shown NE corner, 1902. Remains still apparently survive in garden.

KIMBILLIE (BY 06802)

Bungalow, post 1950, with raking chimneys, and fretted woodwork, (neo-Spanish).

BUNGALOW (BY 06803)

Post 1950.

PLOT (BY 06901)

Tiny triangular plot in NW corner of BY 070. Suggests original line of Calcutts Road, before construction of Ironbridge Road.

ROCK METALWORKS (SITE OF ROCK BRICK & TILE WORK)S (BY 06515)

Now in use as Rock Metalworks, manager Mr Neville, recycling metal products. The firm uses the original offices, and part of the drying sheds of the brickworks, but have largely reconstructed the sheds to the south. Most of the works buildings have now been demolished, and what remains is a very small proportion. However, with the exception of the Blists Hill works, this is the only brick and tile works in the Gorge for which there are any reasonably substantial remains. The brickworks were shown **1840**, expanded by 1902. The area to the south and east of the works is now level, and built up, covered with much tile waste including the occasional ubiquitous Maws tile fragment.

CHIMNEY BASE, DRYING SHEDS (BY 06516)

Square brick chimney base, with trace of circular chimney survives to west of standing drying shed. The manager had a photograph showing this chimney standing to full height.

DRYING SHEDS (BY 06517)

Large open brick shed, with recent corrugated iron roof, in two bays, separated by 6 rectangular brick piers. Brick pillars along walls originally supporting roof trusses. Open front, but original 25 pane windows survive. The brick building to the south was built within the last 25 years

CHIMNEY BASE (BY 06518)

Square chimney base, circular chimney to height of 9 bricks with a course of moulded brick at base. Stands at north end of works, clearly visible from road. Seems to be chimney for drying shed below.

WASH HOUSE (BY 06519)

Small brick shed, tiled roof used as wash shed survives just beyond south gate. Floor level below current ground surface

OFFICE BUILDING (BY 06520)

Office building survives to south of main range, adjacent to chimney. Brick, with moulded brick window sills, and blue brick ... over window openings. Current office butts this structure to the west, and a lean to structure abuts to the east.

MAIN GATE TO WORKS (BY 06521)

Two bright orange, machine made brick pillars topped with terra cotta finials, mark the present entrance to the works. An earlier blocked gateway can be seen to the north of the office building.

DRYING SHED (BY 06522)

The range to the south of the office building and chimney incorporates partial remains of one of the original drying sheds. The east wall has been mainly rebuilt, but the original fenestration (with 25 pane, metal framed windows and concrete lintels) remains to the west. To the south the shed is largely modern, keyed into the rebuilt east wall.

SITE OF SHAFT (BY 06523)

Tramway and coal shaft to south of works shown 1902.

PATH (BY 07301)

Steep route up to "Red Church". In 1902 shown as a very straight path leading south west towards Broseley, and to the north east, plot boundaries hint that it may have continued on the other side of the Ironbridge Road. Not shown as a tramway on 1814 map. Rock House originally aligns with a route parallel to this.

"RED HILL MEADOW" MINING EVIDENCE (BY 07401)

Important mining area, first developed in the 17th century, but continuing to provide coal to clay industries in Jackfield into 20th century. The stream, Birch Batch, has created a valley leading north east, and presumably has exposed coal seams on the sides. The plot was shown 1676, leased by Uxley (Huxley) probably for minerals. Low lying area, site of many shafts through 19thC. 3 Shafts shown 1902 - one coal, one clay, one not specified. All out of use by then. Shafts linked with tramway to Coalford Hollygrove, Rock Works, and river throughout 19thC. The extensive mining which undermined the Red Church would have originated in this area, to which the only person to admit was W.O.Foster.

Southern part of plot 074 now covered with new housing of St Mary's Close. Detailed field work in 074, 076 and 076 would help in identifying the different routes, areas of spoil and the pattern of mining, in this very important but little known area.

PATH (BY 07301)

Steep route up to "Red Church". In 1902 shown as a very straight path leading south west towards Broseley, and to the north east, plot boundaries hint that it may have continued on the other side of the Ironbridge Road. Not shown as a tramway on 1814 map. Rock House originally aligns with a route parallel to this.

"RED HILL MEADOW" MINING EVIDENCE (BY 07401)

Important mining area, first developed in the 17th century, but continuing to provide coal to clay industries in Jackfield into 20th century. The stream, Birch Batch, has created a valley leading north east, and presumably has exposed coal seams on the sides. The plot was shown 1676, leased by Uxley (Huxley) probably for minerals. Low lying area, site of many shafts through 19thC. 3 Shafts shown 1902 - one coal, one clay, one not specified. All out of use by then. Shafts linked with tramway to Coalford Hollygrove, Rock Works, and river throughout 19thC. The extensive mining which undermined the Red Church would have originated in this area, to which the only person to admit was W.O.Foster.

Southern part of plot 074 now covered with new housing of St Mary's Close. Detailed field work in 074, 076 and 076 would help in identifying the different routes, areas of spoil and the pattern of mining, in this very important but little known area.

"OXLEYS ROUGH" (BY 07501)

With 074 and 076, and important coal mining area, feeding brickworks and industries of the Calcutts and the Jackfield area. Oxleys Rough (originally Huxleys, who leased the plot in 1676) is a long narrow plot, following the course of Birch Batch stream.

LINE OF TRAMWAY (BY 07502)

A tramway railway leads from a shaft on this plot probably down towards Davies Coalford brickworks in 1814 (SRO 1681 Box 188) (see Section 3.8). The railway follows close to the stream bed, and is not now visible, although a trace of stone walling can be seen there.

"NASH'S LEASOW" (BY 07601)

Triangle of land between Balls Lane and Ironbridge Road. Important mining coal mining area for Calcutts industries. Linked to Calcutts with series of tramways.

SITE OF BUILDING (BY 07602)

Site of long building, built between 1840/1883, probably part of Hollygrove works and used 1902 as smithy.

SITE OF ST MARY'S CHURCH (BY 07801)

Also known as the New Church, the Church on the Hill or the Red Church.

Built 1759 with money bequeathed by Mary Browne. In use, initially as a chapel of ease, but as a parish church from 1862. Services ceased c. 1920s, demolished c. 1961. Supposedly designed T.F.Pritchard (see note, VCH draft). Illustrated Randall 1879:212, who blamed its then derelict condition on mining subsidence. Built of red brick, with white stone facings. Memorials to F.T. Blythe T.C.Phillips, Alexander Brodie moved to present Jackfield Church. Church itself now a mound of rubble.

GRAVEYARD (BY 07802)

Served Jackfield till at least 1879. Now very overgrown, many stones smashed, several vaults opened. Graveyard recording was undertaken in October 1983 published by the Wilkinson Society. A quick survey 1987 showed fewer monuments legible, and considerable vandalism. Earliest graves noted 1770. Graveyard retaining wall survives, to a height of at least fourteen courses.

The site urgently needs clearance, proper recording, and a programme of continued maintenance to prevent vandalism.

SITE OF CHOLERA GROUND (BY 07901)

Located due west of the Red Church, and shown 1840. Mass grave dug for the victims of the 1832 cholera outbreak.

"ASTLEY FIELDS" (BY 07902)

Area of 17th century mining, this plot is the northern part of the plot shown in 1676, leased Compton. A long insett running under north eastern edge.

FISHHOUSE COLLIERY MOUND (BY 08301)

Long and curiously shaped plot of land, stretching down the valley of Birch Batch from Fishhouse Colliery mound, down to the Ironbridge Road. Bounded by Birch Batch on the south east side. William Buckleys Fishes, Mr Lacons Upper Paddock and Mr Uxley's Rough in 1676. Shown 1224/1/44 (n.d. but presumably pre 1828) containing Fishers Lower Pit, and four small buildings along a tramway or road on the north western boundary. The plot originally stretched down to brick kilns - presumably Hollygrove, before being terminated by the 1828 Ironbridge Road. Tithe map shows part of a length of tramway crossing the plot (now a modern road) and leading north west between Stocking and Barnets Leasow Mound.

LINE OF TRAMWAY (BY 08302)

A later tramway shown 1902 from a coal shaft, crossing the Ironbridge Road, and then disappearing underground.

ROAD OR TRAMWAY (BY 08303)

In 1902 a clear route led up the valley of Birch Batch, crossing the stream at the top, and heading towards Fishhouse Colliery. Could well have been a tramway or road for bringing coal down towards Jackfield. Today the route is a footpath, climbing up away from the stream, and crossing the stream at the top of the hill, near the old shafts. Despite culverting of Birch Batch at the top, the route continues to follow the stream, but is interrupted by modern roads.

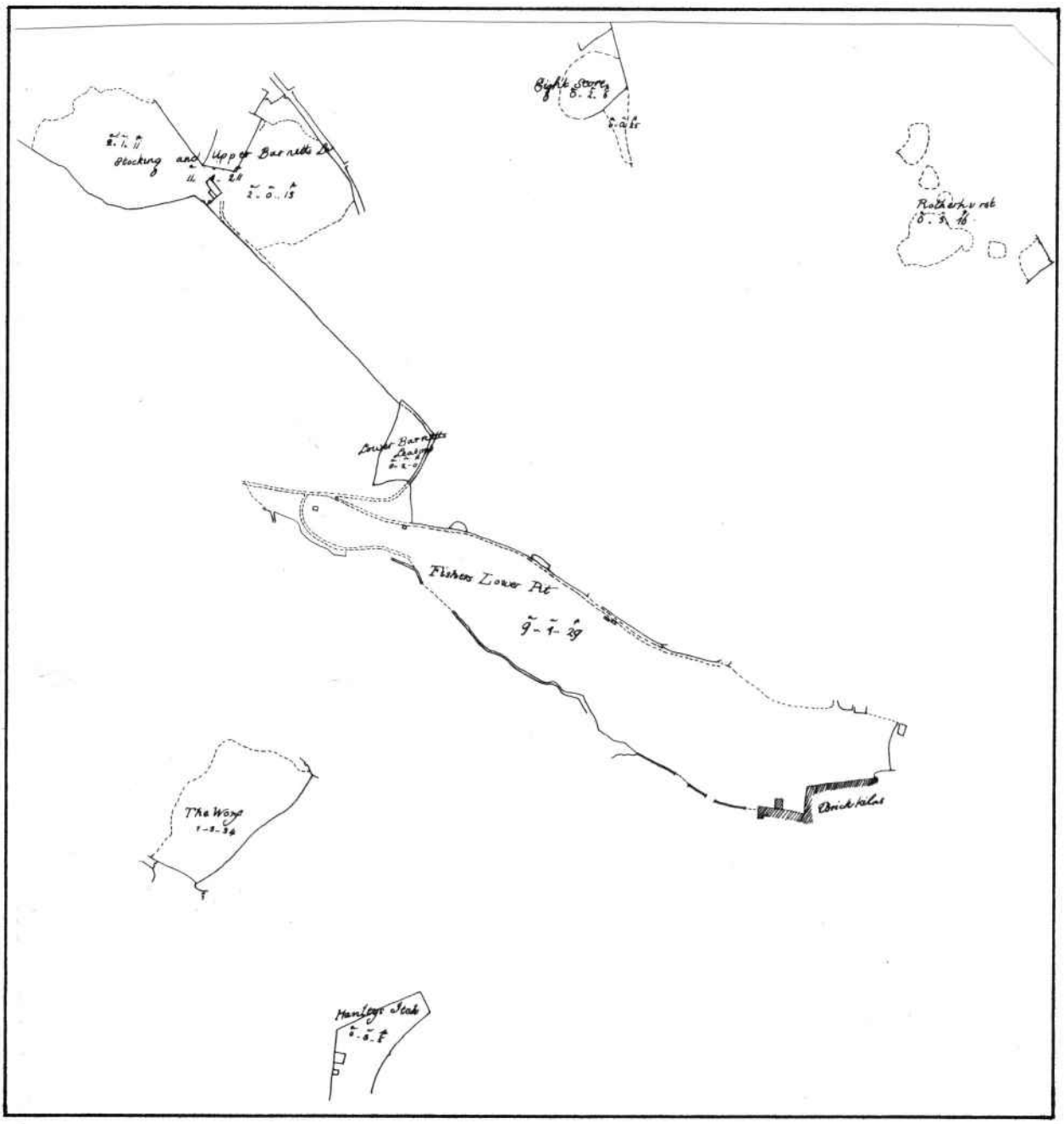


Figure 52: "Plan of the fields" SRO 1224/1/44, showing the location of Upper and Lower Barnetts Leasows and the valley of Birch Batch ("Fishers Lower Pit"). See also figure 53.

SITE OF BIRCH BATCH MILL (BY 08304)

A medieval corn mill was located on Birch Batch. No evidence for mill or water systems has yet been identified, as the area has been much altered by 17th century and later mining.

Barnets LEASOW MOUND (BY 08701)

Colliery mound, out of use by 1883. Very large mound covering c. 3.4 acres, built up in two phases. Shown 1840 as a pit mount and "Stone Pit" operated by James Foster. Trace of final transport route leading down off mound. Tithe map also shows three fields called Barnets Leasow, adjacent to the pit heap, and 1224/1/44 shows an Upper Barnets Leasow by Stocking pit and a Lower Barnets Leasow. Presumably the colliery supplied the Barnets Leasow ironworks, which took their name from the mine. Pennystone could also have been got from the pit, perhaps accounting for the large clayey base to the mound.

Like the other large spoilheaps nearby, these mounds represent mining waste on a scale previously unknown in the area. Closer observation and testing is needed to decide whether they represent an increase in the scale of underground mining, or whether ironstone and other waste have contributed to the larger mounds.

* *

SITE OF BRICKWORKS (BY 16601)

Tithe no 488c, "Brick Sheds, Clay Pit and railway", next to and probably associated with Fishhouse Colliery. One of the last of the small scale brickworks in the parish, it was operated by Hezekiah Hartshorne who also operated the adjacent pit, and a big brick and tile works in Jackfield. Probably the location of the "Woodlands" brick works. Nothing remains.

ROCK HOUSE (BY 17201)

House on same site shown 1676, it and the adjacent building were called "Rockhouses" in 1814. Possibly the large isolated house on the hillside shown by Farington in his pencil drawing of the Jackfield area. Occupied by Joseph Exley, who was responsible for extending the building.

ROUGH GROUND (BY 17601)

Now an area of rough ground, used for grazing, low lying and in places boggy; 1830 tramway should pass through this field, also possibly 1676 Horseway.

31,33 IRONBRIDGE ROAD (BY 17701)

Pair of new cottages built on spoil heap of old clay shaft, shown to the south in 1902. The raised roadway leading to the cottages may well have been originally part of the Mone Wood Tramway system, shown on the **1728** map.

TRACKWAY (BY 17702)

One of the routes down to Jackfield from Broseley pre 1828 extended from Dark Lane along northwestern margin of this plot down towards the later Rock Tileries. Still existed as a road in 1902. Now visible as a trackway

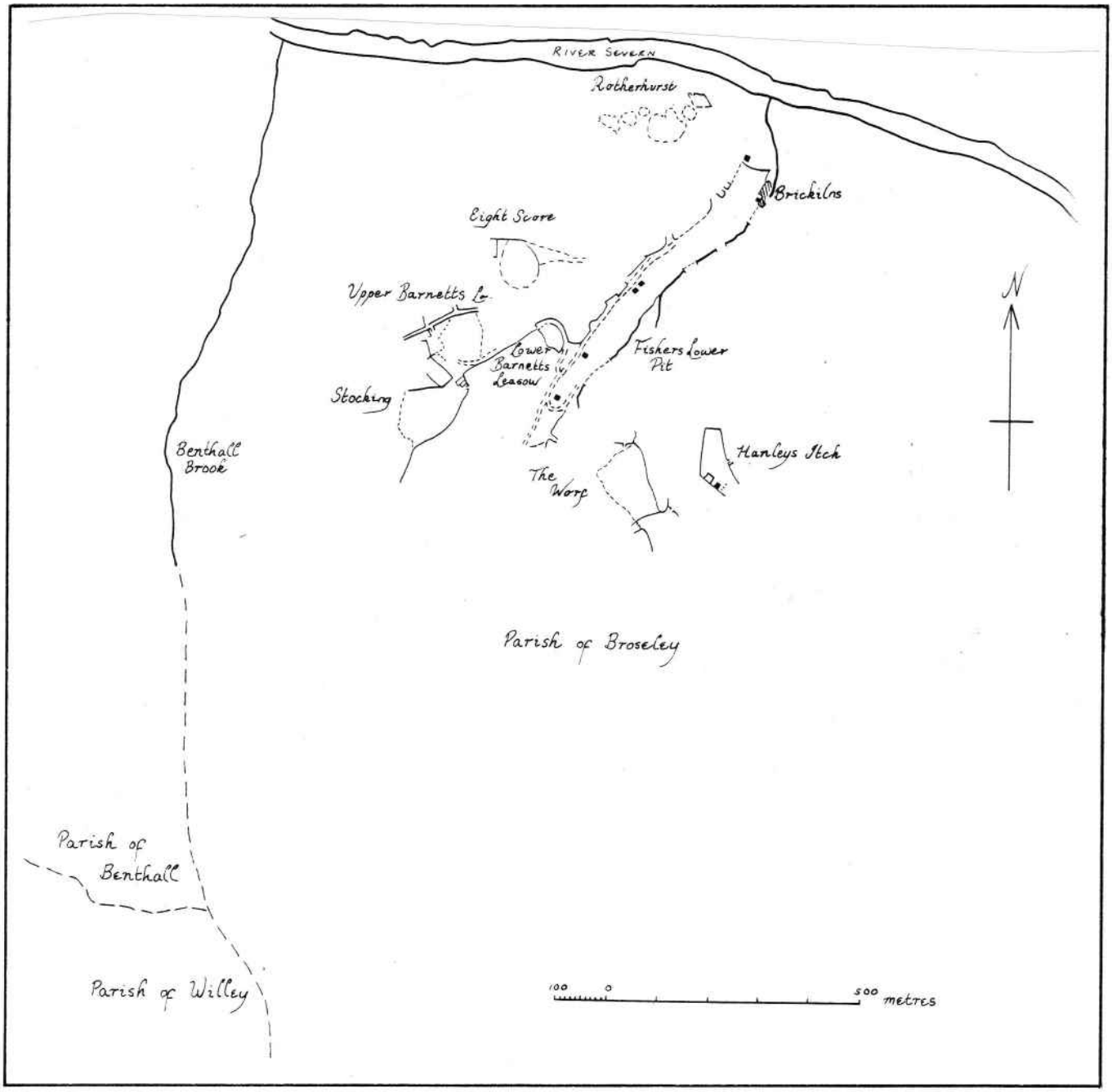


Figure 53: "Plan of the fields" redrawn at 6"/mile to show location of features (see figure 52).

through lowlying ground.

SITE OF CALCUTTS UPPER MILL (BY 18001)

Shown 1830, gone 1840. Mill Pool with wide dam. Could possibly be located at south western end of the massive Hornsey Gates car park, close to the old track, in area where water was collecting, as shown on recent OS map.

ROCK LEASOW, 1830 (BY 18101)

"MONE WOOD" HOUSE (BY 18301)

Plot & cottage (John Dent) shown Broseley Hall Estate map, respecting line of tramway, suggesting that they post date the railway. Two storey two unit cottage with large stack, dentilled brickwork on gable end.

MONE WOOD (BY 184)

Wooded valley, through which Calcutts Brook runs. The Broseley Hall Estate Map shows a mill, three cottages, a network of tramways, and an underground Flint Coal Waggonway in the area. A small cottage shown 1902 may be Hems house. Most of the tramways still survive as a network of paths through the woods. The industrial landscape tends to be very well preserved in woodlands, and this area is an exceptionally good example.

SITE OF STABLE HILL COLLIERY (BY 18401)

Two shafts and buildings, post 1840, in use (Coal & Ironstone) 1882, disused 1902. Shafts could well be very close to the southern most pits in Mone Wood on Broseley Hall Estate Map, linked to Flint coal waggonway. Brickwork and foundations visible adjacent to footpath. Spoil dumping in long tongue extending to west, forming a causeway.

SITE OF HOLLIWELL BRICK & TILE WORKS (BY 18402)

Post 1882 drying shed, kiln and two chimneys shown 1902. Now one ivy covered chimney survives to a height of about 67 bricks. Made of very gritty bricks, containing many inclusions (tile, ash, waste) of a fairly even reddish colour. 1.44m square, with protruding brick collar 15 bricks above the ground. Two holes knocked through, but most likely for down draft kiln. Much roof tile waste can be seen in the stream, much abraded, and not stamped.

CULVERT (BY 18403)

Tongue of spoil between Holliwell works and Stable Hill Colliery forms a high viaduct, beneath which stream is carried through a circular culvert, less than 1m diameter, and constructed of tapering bricks.

TRAMWAY (BY 18404)

Line of 1830 tramway can be clearly followed from where it leaves the Ironbridge Road along a well defined with embankment to south, just south of (that big house), through the wood. The Broseley Hall Estate Map suggests that the original route then followed the stream along a course lower than the present path and now obliterated by tile and colliery dumping, and that the present path from Stable Hill Colliery northwards was a branch, meeting the main line further north.

PLOT (BY 18601)

Land division 1902, which may have been the boundary of John Evans's plot, 1728. Now gone.

FIELD (BY 18901)

Site of "stablehouse" 1728, and still part of Mone Wood. The track marked 1882, and linking Woodhouse farm with Mone Wood, can be clearly seen cut into the hill side. Much evidence for open quarrying, possibly for stone which is not documented.

POOL (BY 19101)

Now marshy and overgrown,this area was once a pool, shown **1840.** The pool lies at the junction of two streams, one from the south west and another from the south. The pool probably lay below the Coneybury Ironworks, and was part of the water power system on Calcutts Brook.

SITE OF CONEYBURY FURNACES (BY 19201)

Low lying field, now grassed. Depression in centre suggests further pool, stone culvert brings stream from south west. Probable location of furnaces, built into bank formed by road, leading to Coneybury Farm. Much rough ground, occasional fragments of brickwork. Resistivity survey and further documentary work is recommended in order to establish whether this is in fact the site of the works.

?POWDERHOUSE (BY 19202)

Circular brick structure c. 3m diameter, with doorway to south. Possibly slightly domed. Survives to height of 23 courses, constructed of red hand made brick, three courses thick at base, narrowing to two courses. Purpose of structure not known.

SITE OF PIT (BY 19501)

William Davis' coal lease (SRO 1681 Box 188) indicates a pit and railway terminus in this field. Could well be the same location as Calcutts Pit. See BY 203. Pit and engine also shown 1830.

IRONBRIDGE ROAD (BY 19701)

Opened in 1828, this road was constructed as an alternative route from the Ironbridge to Broseley, to replace the steep ascent of Bridge Road. Considerable cutting and embanking took place to create the sharp turn to the south, near the site of the Hollygrove brickworks. The road cuts right across several existing routes and tramways, which led north eastwards from Broseley to Jackfield., and houses on pre-existing routes can be seen at odd angles to the road. By 1902 very little development had taken place along this road, and it is only recently that groups of housing estates, leading onto the road, have been constructed. The implication is that relatively little expansion of Broseley or Jackfield took place in the later part of the nineteenth century.

The southern part of the road already existed as a route, perhaps as a way down to Corbetts Dingle (see **1728**), but the northern part was newly constructed. A toll house on plot 269 might reflect this junction.

WELL (BY 19801)

Shown 1902. Reputed to be the site of the Holly Well which gave its name to the brickworks. Now a small spring emerging from the road side, lined with modern brick.

HAYCOP COLLIERY (BY 20001)

Colliery in operation by 1840. Now large spoil mound survives, apparently used for Broseley rubbish until 1940s. Brick lined shaft and line of tramway can be seen at west end as shown 1883. Further walls and low brick plinth survive on south side, as foundations for winding drum. Reputed to be a millstone in the area. According to Mugridge, mined from c. 1780 to provide coal for Coneybury furnaces, and after 1830 for Hollygrove and Coalford Tileries. Out of use by 1883.

BOTTOM COAL COLLIERY (BY 20003)

Colliery at east end of Haycop mound, adjacent to road. Shaft is apparently capped with millstone. Mugridge suggests that building on By 192 is powder house for colliery. Hollywell shaft to the south was apparently used to drain works (1987).

SITE OF WEIGHING MACHINE (BY 20002)

Tithe 525c, shown as small building presumably for weighing ironstone or coal.

SITE OF CALCUTTS PIT (BY 20301)

Mentioned 1608 coal mining disputes between Clifford and Wilcox. This location derived from 1676 mining map, and from 1728 Broseley Hall Estate Map. See also BY 065.

SITE OF YEWTREE PIT (BY 20302)

19th century coal pit, shown SJ60SE, sharply defined coal mound survives, much smaller than the big mounds of Barnets Leasow or Stocking. Could well be the same pit as Calcutts, remaining in operation for perhaps 200 years. Some confusion over the name Yewtree which has also been applied to Ashtree pit.

DARK LANE (BY 20901)

See BY 17702. A route from Broseley to Jackfield; cut by 1828 road, and so predating it. Used as a railway in 1814 (SRO 1681 188).

THE DOWN WELL (BY 26501)

Main water supply for Broseley from mid 17th century until mid 19thC when a reservoir was built. A storage tank was built here in 1885. Well survives as a large brick arched structure, partly blocked, with water still flowing. A local person mentioned the reservoir, located in a field to the north. Recording of this structure should take place.

FIELD NORTH OF CHURCH (BY 26701)

Field with clear remains of pond or pool,in north west corner of field, and track across dam, perhaps originally leading up to the Down Well. Part of

the complex water supply system which eventually feeds the Calcutts Brook. Pools in this area were most likely agricultural, although complex earthworks in the field should be recorded.

TOLLHOUSE (BY 26901)

Toll house on 1828 Ironbridge Road, possibly reflecting junction between the length or road newly constructed by toll authorities, and pre-existing road to south.

BRICK STRUCTURE (BY 27701)

Small structure, 2.29m by 2.45m surviving to height of 1.6m with entrance to north, 4 vents on west wall. Hand made red brick, with red hand made roof tiles. Located against eastern boundary of plot. Walls 1 and 2 bricks thick.

TRACK (BY 278)

Road to Coneybury farm, built up well above level of field. Stone and vitrified brick in retaining wall. Could have been part of a route towards Corbetts Dingle.

SITE OF DEEP PIT (BY 28401)

One of the best documented Shropshire pits. Record drawings and photographs in IGMT library. Abandoned 1939, abandoned mine plan 13371, red clay. Described F.R. Gameson, Shropshire Magazine March 1952, with additional material published Brown, Wilkinson Society Journal, no 4. Mugridge suggests it was dug pre-1726 (area is not on **1728**), worked by John Guest from 1760s. Clay and coal were taken to the Dunge brickworks. By c. 1850 clay was worked from the surface and mixed with red and grey clays for Broseley Tileries. The pit continued operation under Prestage, producing clay for Milburgh tileries. The original winding engine - said to be a Boulton & Watt produced at Willey Furnaces - continued in operation until closure in 1941, although the cylinder was the only original part. Nothing remains (Mugridge 1987).

TRAMWAY TO TURNERS YARD (BY 28901)

Tramway route from Broseley Brick and tile works, leading towards collieries in Caughley area, and perhaps joining up with tramway network around Rowton and Swinney. Route can still be seen today behind the Tileries estate, but is ploughed out elsewhere.

SITE OF BROSELEY BRICK & TILE WORKS (BY 29001)

Now location of "Tileries" estate. Associated remains on BY 359, BY 284 (Deep Pit) and BY 260 (Tramway).

SITE OF GUEST'S FURNACES (BY 290)

Site of Broseley furnaces prior to use of site as a Brick and Tile works. Most evidence destroyed in construction of estate.

ROAD TO COALPORT BRIDGE (BY 291)

Completed by Coalport Bridge proprietors in 1792. The road partly follows an earlier track, shown **1621** and perhaps closed by a local landowner,

Thomas Stephens (VCH:Draft).

COTTAGE (BY 29301)

Timber framed cottage by Broseley School. One of the few such cottages in the whole of the parish to have survived relatively intact, with few external alterations or rebuilding. Should be recorded as an excellent example of local early house construction.

SITE OF CLIFFORD'S HOUSE (BY 35501)

Lowlying mound in this field may well be remains of Priory House, constructed by James Clifford (Paul Stamper, pers com.). Any proposed development here should fully excavate, or avoid the site, as a potentially well preserved example of the functioning and layout of a large sixteenth century house. Overhead power lines would restrict resistivity.

This area also has the potential for any remains of a deserted medieval village surrounding the earliest centre of Broseley.

OFFICE BUILDING (BY 35901)

The only building surviving from the original Dunge Brick works, surveyed and research by Richard Pickering (1988). Building survives as two storeyed brick and tile building, with raised gables, extended to the north and south. Central unit is most likely to be the office building of the Dunge brickworks, founded 1811, with later additions rebuilt by 1883. If this is so, this is the earliest brickworks building surviving in the Gorge and one of the few complete industrial buildings of this date, and is therefore of great importance in the understanding of the local industry and building types. The remains of the original works lay around this building, and are thus preserved as an important archaeological site. Development should be avoided if at all possible.

ENGINE HOUSE (BY 37501)

Small brick structure, with integral chimney, and small internal fireplace associated with rebuilding of Dunge Brick and Tile works c. 1870. Recorded Pickering 1988, who interpreted it as a small clay grinding mill, from which clay would be sent by canvas elevator over the road to the new Dunge brickworks.

SITE OF DUNGE BRICK & TILE WORKS (BY 36201)

The site of the second Dunge brickworks, rebuilt c. 1870 as a new brick and tile manufactory. Now completely destroyed for construction of the tileries estate.

Figure 54: Clay grinding machinery similar to that possibly used in the remaining grinding house at the Dunge (BY 37501).

TRAMWAY (BY 44001)

Route of tramway from shafts in BY 486 to Doughty's Brick & Tile Works. Route is clearly visible as a path through the field, and was noted by Wolverhampton Polytechnic students as c. 2m wide, with embankment built up of tile and slag. Local resident mentioned rails recently removed from site. See also BY 065, BY 486.

CALCUTTS HOUSE (BY 44101)

Dated on rainwater head 1755. Classical style, 5 bays with central doorways, two storeys with gabled attic dormer. Brownish bricks have kiss marks caused by tiles fired in same kiln. Used as hospital during 1832 Cholera outbreak.

SITE OF CORNMILL (BY 44301)

Depicted 1788 Wilson Lowry (Smith 1979 no 31) as just upstream of Calcutts, but notably absent from Farington (1789). In 1788 the mill is ruinous, with roofing coming away from its timbers. Wheel still stands, worked by river water. Traces of a low weir cross at least part of the river. Stone gable wall and chimney seem partly collapsed. Possible that it was badly affected during the floods of 1770. A corn mill is shown 1830, but much closer to Calcutts Works. The stone from the mill is reputed to have been used to cap the Ashtree Shaft.

SITE OF CALCUTTS IRON WORKS (BY 44302 and 449)

Site of ironworks, in operation from 1767. The site straddled two estates - the Calcutts Estate, and the Broseley Hall Estate, and the plot division along the stream between 443 and 449 reflects this. The individual buildings are discussed in Chapter Seven. Parts of several buildings survived into the twentieth century, and were used as a brass foundry, but demolished c. 1985 for the construction of the present house on the site. Prior to demolition, trial excavation was carried out by the IGMTAU under David Higgins (JF (2) 84). Archaeological records and field notes from this work have been compiled by Nicola Smith (forthcoming).

Today little remains of the site. The stream which bisected the works emerges from beneath the SVR, but is then culverted, and re-emerges on the riverside below the house. The site has been levelled, although there is considerable evidence for built up of slag and waste, and footings may survive at a deeper level. The stone bank retaining wall which pre-dates the construction of the SVR survives, and this and the culvert should be recorded.

SITE OF TRAMWAY & WHARVES (BY 44303)

Shown 1846 leading from coal pits and possibly brickworks to riverside wharf, superseded as a route by SVR by 1883. Leads through works and sweeps eastwards along the riverside.

This route very likely follows the path leading down the bank from the ironworks to the cornmill, shown by Lowry in 1788 (Smith 1979). Two rails can be faintly discerned on this early engraving. The path can be seen in the river bank today, as a compressed area, built up of layers of slag and fine chippings. A layer of turf or soil covered the path before the whole area was - at least to the west of the works - dumped upon with post-1889 tile waste.

The riverbank extending westwards from the Calcutts site is of considerable archaeological interest - it is currently being cut away by the river, revealing not only the tramway and dump already mentioned, but wharf evidence. Traces of stone and brick walls as well as massive timber uprights can be seen at the water's edge, many of which are in danger of erosion. Recording is currently being undertaken by S. Duckworth (forthcoming). The pattern of dumping from the ironworks and subsequent foundry and brass works can also be traced, and there is evidence for thick layers of tar, not associated with road making. Full recording in this threatened area is obviously vital.

JACKFIELD HALT (BY 44401)

Originally further downstream, moved after the 1952 Landslip.

TRAMWAY SIDING (BY 44402)

Identified by students of Wolverhampton Polytechnic as iron rails set in concrete in garden of Station Bungalow. Tramway siding built to transfer brickworks goods to standard gauge railway.

JACKFIELD SCHOOL (BY444a01)

Dated 1844, of brown/red brick with yellow headers and bright yellow kiss marks. Built as a National school with 88 places, it was enlarged in 1870, and a playground added by 1902. Attendance declined this century, and it finally closed in 1981. Built by Samuel Nevett, the Ironbridge builder at a cost of £350, it originally comprised school room and class room (VCHxi:draft).

SEVERN VALLEY RAILWAY LINE (BY 44601)

Refers to area of line on OS map sheet 43. See also BY 025 and BY 535. Construction of line discussed in Clark & Alfrey 1987, impact of line on local community by McKelvey 1985. See also Chapter 8. Following subsidence, main road now uses old track bed to the east of Station Bungalow. Sidings on line remain at Coalford, bridge on plot BY 025.

CROSSING GATES (BY 44602)

Reputedly longest crossing gates in Britain (Mugridge 1987). Single gate survives intact.

CROSSING KEEPERS COTTAGE (WEST) (BY 44603)

Standardised SVR crossing keepers house at eastern end of plot 444, similar in type to examples at western end of plot, and at Buildwas. Single storey brick cottage, plain tiled roof, and a lozenge decoration in two courses of raised bricks on gable wall. Presumably 1862 in date. All buildings for the line were supplied by the contractors (see text). House is surrounded by white wooden paling fence, presumably original to railway. Small timber hut survives adjacent to house.

CROSSING KEEPERS COTTAGE (EAST) (BY 44604)

Brick bungalow, similar to above.

SITE OF LIMEKILNS (BY 44605)

Group of 3 limekilns shown 1830 just south of Calcutts works, now approximately under Station Bungalow.

"SEVERN TROW" (BY 44701)

Former inn and lodging house, catering for the riverside trade. Possibly the building shown as Frs Russel's house **1728.** Licensed as a public house between 1810 and 1916, it's original rough image was replaced by a more genteel Edwardian one, serving meals and catering for bowling and fishing. The building was sold to the church, and from then associated with church activities. Between 1986/7 the building was renovated for bed and breakfast accommodation (Isaac 1987).

Once two separate dwellings. Main part is two unit early 18th century house, with a rear block constructed as a separate phase containing massive stack and vaulted bakehouse. Single unit bay added on, probably also in 18th century. Large open plan rooms upstairs, were divided into cubicles for "lodging" house. Fine mosaic floor in dining room. Tile dated 1767 collected from roof by IGMTAU.

VILLAGE HALL (BY 44702)

Built c. 1950 by the village on land belonging to the Severn Trow, using prefabricated techniques.

RIVER (BY 448)

Plot number given to southern part of river on Sheet 43.

BUNGALOW (BY 44903)

Bungalow built since 1950.

HOUSE (BY 44904)

Cottage built by 1840 (685?). Probably early 18th century with front wing added later in 18th century, probably separate dwelling.

PAIR OF COTTAGES (BY 44905)

Cottages, one built as rear wing of other, original building to south is an early 18th century cottage. 2 unit plan, one and a half storeyed symmetrically arranged, rear wing formed separate cottage, probably added at end of 18th century.

ROW OF COTTAGES (BY 44906)

Row of four cottages, now two dwellings, built by 1840, and probably early 18th century. Built in at least 2 phases - that to east is a single unit cottage with rear stack, the rest a row of 3 cottages, also originally single unit plans with rear stack (for internal corner fireplaces?). Position if not form of original openings respected in adaptations (for original form, see 1982.243 and 1984.3287).

Row of cottages with kiln at eastern end shown **1728.** Thus the buildings could be some of the earliest industrial buildings still standing in the Gorge. The site of the kiln is now under a modern garage. Pottery surface collection in this area has indicated extensive pottery working (see BY

454). Any excavation, trenches or development in this area should be very closely monitored.

SITE OF CALCUTTS IRONWORKS (BY 44907)

See BY 443 above.

SITE OF PUMPING ENGINE (BY 44908)

Water pumping engine - remains of a chimney and brick structure are leaning precariously over the riverside. Shown as pumping engine 1902, and reputedly constructed by Jackfield Tile works to pump water for industrial purposes from the river Severn. Jackfield depended upon river water until 1912 (VCHxi:draft).

SITE OF HORSEFERRY (BY 44909)

Shown **1840**, presumably ceased operation 1856 (VCHxi:draft).

OAK COTTAGE (BY 45001)

Former Post Office. Late 18th century house, two bays with central doorway and tall gabled dormers, making symmetrical facade. Deep dentilled eaves bank, and decorative sill bank, projecting gable stacks. Flemish bond brickwork. Sash windows, also in attic dormers (one central dormer removed) and doubled cambered heads over lower windows. Brown blue brick with kiss marks.

139-142 SALTHOUSES ROAD (BY 45002)

Pair of houses, probably built as one subdivided to form 3 or 4 cottages in late 19th century. Original building probably early 18th century - two storeyed with gable attic dormers. Northern elevation (principal front) now of 5 bays, unequally divided, originally four (eastern bay is an addition, though probably an early one). Gable and axial stacks (axial stack serves interior corner fireplace, and may be adaptation of early gable end stack). Two rear wings both added, one probably with additions to main range, the other in 19th century. Original structure could well be Francis Benbow's house shown **1728** as a two storeyed structure in an enclosed garden with central chimney.

143-144 SALTHOUSES ROAD (BY 45003)

Row of 3 houses, built by 1840, probably early 19th century. 143 and 144 are single development possibly built as one: there is a single original doorway, central between the two chimneys which appear to mark out the limits of an original building later extended by an additional bay to the east. Dentilled eaves and a single coped gable. Eastern-most house a later addition and partially rebuilt recently - a front gabled wing was removed and replaced with a flat roofed ground floor extension.

SALTHOUSE ROAD (BY 45101)

The present road is on the pre-1840 line, and prior to the slip of 1952, continued east towards the riverbank and the Salthouses community. Where the road has been truncated, deposits of ash, encaustic tile waste, brick and slag can be seen making up the surface beneath the asphalt in fine, well trodden layers. This suggests that there may have been problems with slip and movement in the road well before 1952. Much of this waste is 20th

century, but occasionally 18th century sherds are found.

ST MARY'S CHURCH (BY 45301)

Built 1863 to a design by Arthur Blomfield, this church was originally known as the Pritchard Memorial church, but became known as St Mary's, after Old St Mary's, the earlier church. Built of multicoloured local brick in a "French pointed" style (VCH xi:draft). The walls include nine different types of bricks; the common Broseley tile impressions are used to effect over the door and in the tower. White and red terra cotta facings to the south porch, and elaborate dentilling around the windows. The roof is of plain tile, with alternating courses of decorative tile. There is a suggestion that the church was built by Exleys (Mugridge pers com) who were the only local firm producing terra cotta.

FORMER SHOP (BY 45302)

Built of corrugated iron and other left over building materials, this small shack was constructed after 1927. Steps made of roof tile lead up in front of the building. Now disused. A good example of the type of temporary, makeshift building which seldom survives.

JACKFIELD ENCAUSTIC TILE WORKS (BY 45401)

Group of buildings purpose built as tile works 1874, designed by Charles Lynam, later used as a brass foundry and machine shop (see Chapter 6). Now partly in use as a museum. The buildings survive substantially intact, although additions have been made to the original works, and during subsequent periods. Survey has been conducted by IGMTAU and by Macdonald (1988), but much work remains to be done in the understanding of the buildings.

ASHTREE POTTERY (BY 45402)

Pottery comprising two circular kilns, linked together and a group of at least four other buildings in **1840.** The following chronological sequence might be suggested for the site (although this could be conflated with the two other 18th century sites):

1728 - Morris Thursfield's Pott-houses
1773 - Morris Thursfields Potworks
1783 - Edward Blakeway, later joined by Horton and Rose of Caughley
1836 - John Myatts new pottery
1840 - Myatt and Yates
1851- George Proudman's Ivanhoe pottery
1854 - Wootton and Jackfield Pottery
1860 - George Ray and James Bradshaw, and later Thomas Hassal
1865 - John Hawes at Jackfield Potworks
1867 - Hawes & Denny's Jackfield Geometric and Encaustic Tile works

The buildings remained standing during the construction of the Craven Dunnill Works but were demolished soon after. The line of the buildings is incorporated in the present layout of the works, which is not - as at Maws - totally rectangular.

A kiln from the Ashtree pottery was located by Rimmell (1983), and excavation took place by IGMTAU, which revealed sherds of Mocha ware and Creamware dating at Coalport at least to the period 1796-1800. The excavation was not carried on beneath kiln level.

There were at least two other pottery making sites in the 18th century, probably located just to the north of this site. Considerable quantities of wasters have been found in this area (see Chapter 5, IGMTAU surface collections e.g. JF83A) but it is notable that the waste is highly localised. Pottery waste was found at the Calcutts, but absolutely no waste was observed in deep excavations at the Tumbling Sailors to the east.

The northernmost building of the group in 1840 comprised the Ashtree tavern, and there are contemporary references to both the Ashtree Tavern Pottery and the Jackfield pottery. This suggests that pottery was manufactured separately at two locations in the same complex. The Ashtree Tavern pottery may have continued a tradition of pottery making in association with public houses, suggested in the 'Mughouses' of Jackfield in the 18th century.

SITE OF ASHTREE PIT (BY 45403)

Coal pit, shown on Broseley Hall Estate map to the south of the present Craven Dunnill works. Field now grassed over. Mugridge calls this the Yew Tree Pit, and says "on completion of their new works, Craven Dunnill & Co opened a new working near to the Yew Tree Pit and capped the old shaft with a great mill stone reputed to be from Thursfield's old mill which stood on the riverbank near to the site of the Calcutts Ironworks" (1987:63). He also points out a series of egg ended boilers in use as water tanks at the pit.

SITE OF WALLACE TILERIES (BY 45501)

Now heavily overgrown, but many low brick walls, cavities and much tile waste visible. Two down draft kilns in front of a range of brick preparation buildings, with tramway connected to clay pits and shafts to the south. Clearly shown Cambridge aerial photograph. Incline also led from clay pits directly to SVR.

WALLACE CLAY PITS (BY 45502)

SJ 60SE indicates that these pits worked clays in Hadley formation, old workings in Main Sulphur coal c. 68m below surface. Associated chimney still stands to south of Wallace Tileries site. A detailed description of the working and some of the characters associated with the pit is given by Mugridge (1987). The pits were in operation from c. 1860 until 1940, latterly as clay pits. The underground lake, reputedly responsible for the Jackfield slip, could be seen down the pit.

WALLACE COLLIERY/WALLERS PIT (BY 45503)

Two shafts, working tile clays, shown by north side of Wallace Tile Works on GS. Shown as Wallace Colliery, 1883.

SITE OF JOLLY AND BONNY PITS (BY 45504)

Pits shown 1728, linked by flint coal waggonway almost a mile long to Coneybury. This waggonway could well be underground. Location would be roughly in the region of the Wallace Tileries itself. A large area of working is shown on the map (roughly 7 ha), extending to the Doughty Fault in the west and the Woodhouse Farm in the south. The flooding of this might well have affected land stablility at Salthouses to the north.

These pits could well be the "Salthouse Pits". Mentioned Plymley (1803:71), who says that salt was made from water taken out of pits, still called the "Salthouse Pits".

DEMOLISHED BUILDING (BY 45601)

House shown as 2 on Tithe map, (709-710), subsequently reduced in size and demolished after 1952 slip.

DEMOLISHED BUILDING (BY 45602)

Building shown **1840** (708) but demolished by 1883.

THE SALTHOUSES (BY 456, 457, 458 etc)

Extensive community, shown 1840, perhaps with 17th/18th century origins. Site of early 18th century salt glazed pottery manufacture, and possibly extraction of salt from coal pit brine. Only a handful of buildings survive today. Some - to the west and south of the area were demolished for the construction of the SVR in 1862, while many of the remainder were demolished after a disastrous land slip of 1952 when 24 families were evacuated and relocated on a Broseley Estate (Brown 1974, 942.45 JAC, 1983.2627). Wallace Tile works also affected. Several buildings to the east were demolished for the construction and later extension of the Maws tileworks.

SITE OF PEARTREE COTTAGE AND DEMOLISHED BUILDINGS (BY 45701)

Two ranges of buildings, both built by **1840**; one dem. by 1883, one remaining into 20th century. Probably site of Pear Tree Cottage - two storey single bay brick cottage with extension, facing west, badly affected by 1952 landslip at Salthouses. Depicted in many newspaper cuttings of the slip (eg. in 1983.2627, 1986.11850, and 942.45 JAC).

DEMOLISHED BUILDINGS (BY 45702)

House built by 1840, and dem. for railway construction (712).

DEMOLISHED BUILDING (BY 45703)

House, shown **1840** dem post 1952. Buildings of this plot may be those shown 1981.3205.

POTTERY WASTE (BY 45704)

Location of black ashy tip containing sherds white salt glazed stone ware, comb decorated slip ware and occasional pieces of Jackfield ware, all with wasters, saggar fragments, kiln furniture and burnt flint (Malam 1981) where further details of the material are given). Evidence for manufacture of white salt glazed stone ware, between about 1730 and 1780. Further

details are published Trueman 1985, and the forthcoming archaeology team backlog report.

DEMOLISHED BUILDINGS (BY 45901)

House, shown **1840** dem. after slip. BY 54901 and BY 45903-4 may be those shown in 1982.244, in which case two of them are timber framed cottages, probably of the later 17th century.

DEMOLISHED BUILDING (BY 45902)

House shown **1840** dem pre 1883.

DEMOLISHED BUILDING (BY 45903)

House shown **1840** dem after slip.

DEMOLISHED BUILDING (BY 45904)

House shown **1840**, dem after slip.

DEMOLISHED BUILDING (BY 45905)

House shown 1840 but dem after slip. Included former post office shown in 1981.3214, suggesting that this group (also including BY 45906) was early 19th/late 18th century, possibly with earlier elements (note coped gable rear wing).

DEMOLISHED BUILDING (BY 45906)

Shown **1840** dem after slip.

DEMOLISHED BUILDINGS (BY 46201)

Small house, built by 1840, dem. after slip. Possibly site of timberframed "Salthouse" a two unit cottage with massive axial brick stack recorded by Forrest. See also illustration of Salthouse in Smith 1979.

DEMOLISHED BUILDINGS (BY 46202)

Group of houses demolished after slip and formerly part of "The Square". Built by 1840, foundation and brick floors survive. Shown 1981.3214, which shows group of 6 buildings with no common frontage including one 2 storeyed, 2 bayed classical house, and two small single unit early 18th century cottages.

DEMOLISHED BUILDINGS (BY 46203)

Row of 3 cottages, dem. after slip.

HALF MOON PUBLIC HOUSE (BY 46204)

Inn, built by 1840, probably late 18th/early 19th century. First transaction on deeds 1845. 3 unit plan, much altered by recent removal of internal partition walls. Front wall partially extended along ground floor, orange red brick, painted imitation half timbering. Large jug formerly stood outside this pub, but is currently undergoing restoration.

175 SALTHOUSES (BY 46205)

Small house, either partly built or replacing a building on the site in 1840 (725). 2 unit plan, built into slope, with an unequal division of size between units.

SITE OF HOUSES (BY 46401)

Group of 3-4 houses, pre 1840 (728), dem after 1902.

SEVERN TERRACE (BY 46601)

Row of 3 houses built after 1840, before 1883. Originally a conventionally planned late 19th century terrace - single unit frontages with rear wing but additions to easternmost building incorporating a semi-detached wing and one floor conservatory.

191 SALTHOUSES (BY 46602)

Small house built after 1840 and by 1883 but probably earlier than adjacent rows. 2 unit plan, brown brick with yellow brick eaves blocking course and lintels.

SALTHOUSES (BY 46603)

Row of 3 houses now in use as one, built after 1840 and before 1883, and added to on conversion to single house. Wide windows with unmoulded hood moulds, central stack between two original units.

SAGGAR WALL (BY 46602)

Group of salt glazed pottery saggars built into bank retaining wall. Further evidence for local salt glazed pottery manufacture. Published Malam 1983:26, Trueman 1985.

TOW PATH (BY 46701)

Shown as a towpath in 1840, there is evidence along parts of the riverbank for a built up, levelled path. Traditionally it has been assumed that the towpath completed by 1800 from Coalbrookdale to Bewdley, at the instigation of William Reynolds (Trinder 1981:69) ran along the north bank, and this is confirmed by the minutes of the Ironbridge Proprietors. However, there was clearly a towpath on the south bank at least along the eastern end of Jackfield.

WASTE TIP (BY 47001)

Massive tip of Maws Tile waste, with tramway leading from works, 1902. Now car park. Several structures built over tip after 1902, including tin sheds, tennis court.

PLOT (BY 47101)

Tiny plot of land on river bank, which seems to be related to island in river, shown 1883. Parish boundary moves from centre of island to channel 1883/1902. Island could be originally fish weir, although later built up with Maws dump.

SITE OF HOUSE (BY 47201)

Built 1840-1883, as a pair of houses, for brick company. Demolished after 1902.

WERPS FERRY LANDING (BY 47401)

Known as Werps, Tuckies or Coalport ferry, in operation until at least 1902, closed in 1912 or 1920, replaced by Memorial Bridge, built 1922 (VCH). William Reynolds had private ferry here. Shown 1986.6319.

SITE OF HOUSES AND SUN INN (BY 47501)

730 on Tithe Map. Row of houses demolished after 1860 for construction of tileworks. Comprised 8 houses and an Inn (The Sun).

SITE OF MAWS TILE WORKS (BY 475)

Designed Charles Lynam, and operating 1883-1969, the buildings which remain represent about half of the original works, much being demolished between 1974 and 1977. Now in use for craft units and housing.

CLAY RECEIVING AREA (BY 47502)

South easternmost surviving building. Single storey to south, dropping away to north. Line with white tiles, two 6 sided concrete pillars in side. Dentilled eaves cut away for insertion of wooden loading doors labelled buff/white/flint.

SINGLE STOREY RANGE (BY 47503)

MILLS (BY 47504)

Keyed into 47503. Four storey building, 3 bays, with hoist and loading door at top of central bay. Moulded brick string courses between floors, dentilled eaves. Present ground level raised above original. West wall rebuilt in conjunction with rebuild of BY 47504. Traces of wall keyed into south west corner of building, running south.

LONG RANGE (BY 47505)

Long range, two storey, dentilled eaves. Original building extended to south, now partially demolished and facade rebuilt in orange brick with square openings.

RANGE (BY 47506)

"Manufacturing apartments, mess-rooms and rooms for the use of workpeople". Two storey, 14 10 paned widows on first floor. 16 paned windows and tall narrow 8 paned ones on ground floor. Arched opening in centre. Two chimneys at west end. Light brick, with darker brick around openings.

SOUTHERN RANGE (BY 47507)

3 storey building, 16 paned window top floor, tall narrow 4x7 paned windows on first and ground floor. Dentilled eaves. Light pink brick with dark purple window surrounds. Iron tie bars above 1st floor windows. Now converted into range of 11 craft units with houses above, doors remodelled. One original door survives at west end.

Bank of 8 bottle kilns were located to south of this range.

OFFICE RANGE (BY 47508)

Two storey range at west end of works used as offices and show room to north with room and warehouses to south. East facade with bow window over main works entrance, Works entrance supported on iron beam with cast decorative rosettes. Sash windows with fine supplementary glazing bars. Door to north of works entrance has tile panel over, "Foremans Office". Small ?cash window to left of door.

West facade clearly main works entrance, Decorative tiles over entrance, moulded brick string course and sills. SHiny red machine made bricks, mottled brown bricks around arches and doors.

SITE OF MAWS BRICKWORKS (BY 47509)

Brickmaking was established on the Maws site well before the construction of the tileworks, however the company built their own brickworks before the tileworks. BY 47509 is this site, but map evidence shows at least three phases:

1840 - Brickworks operated by William Taylor in two parts - long buildings and kilns on riverside (plot BY 472 area) and also buildings to the south, including the standing engine house (BY 51202) and remaining building (BY 51201), as well as two kilns and a pool.

1860 - Tuckies estate sale particulars show works has expanded - at least three buildings along riverside to west of "The Boat". Kilns to south demolished for railway. These were presumably the buildings used in the chemical works of 1861, 1881 (see 51103)

1883 - (date of OS map, surveyed prior to opening of Maws Tile Works). Whole works has been rebuilt by the railway on a plot of land bought by Maw & Co in the 1860 sale. Presumably by Maws to make bricks for their new works. Cottages had also been built by this date.

SITE OF BOAT LEASOW PIT (BY 47510)

Mugridge has suggested that the pit worked by Clifford lies under the site of Maws, on Boat Leasow, the field stretching from the Tuckies to the river. The pit was on the piece of land purchased by Maws in 1860 (Mugridge 1987:45-7).

CLAY PITS AND TRAMWAYS OPPOSITE MAWS (BY 47601)

Shown on GS SJ60SE as Tuckies Pit, 1902 map indicates shafts, and open clay pit. Jewitt says these clays used in manufacture of Maws tiles. Presumably also in bricks, as brickworks was built very close to these pits.

SITE OF HOUSE (BY 48101)

Two storey brick house(s) with two chimneys, opposite Signal Post, demolished after land slip. See 1981.3214. Probably associated with railway, demolished after 1902.

FIELD (BY 48301)

Part of Cow Pasture, **1728.**

FIELD (BY 48401)

"Cow Meadow" and "The Fegg", and site of Woodhouse Pit, Broseley Hall Estate Map.

WOODLAND (BY 48501)

Part of Cow Pasture, 1728.

SITE OF CLAY SHAFTS AND TRAMWAY (BY 48601)

Location of tramway taking clay to Doughty's works, and clay pit. Double gabled brick winding house, head gear and chimney shown in AV-34 (Cambridge Aerofilms). Walls of winding house still stand. According to Mugridge site of Alders Meadow pit, operating by 1905, closed 1940, mining red clay. Engine was scrapped, and site landscaped 1984. Two shafts working clays by pillar and stall. Clay was weathered at the mine, and taken to Doughtys (1987:25-6).

LANDSLIP (BY 48602)

Land slip and cross drains shown in this field on the Broseley Hall estate map, indicating that there were 18thC land stability problems in the region as well.

WOODHOUSE FARM (BY 49101)

18th century brick farmhouse; part of the lands inherited by Clifford. Sold to Sir Edward Bromley, 1618, and passed to Andrew Langley, Henry Crompton, Elizabeth Crompton and thus into the Broseley Hall Estate. Presumably medieval woodland clearing. Farmhouse has earlier core, and should be investigated.

FIELD (BY 492)

Dial Meadow, 1728.

FIELD (BY 493)

Well Meadow 1728.

SITE OF COTTAGE (BY 49601)

Shown 1902, could well be cottage opposite Cornbatch Pits, 1728.

TUCKIES HOUSE (BY 50301)

Substantial brick and sandstone house. Was an early freehold estate (?) which was sold to Francis Langley, inherited by the Purcells and the estates sold off in 1741. Further sale took place in 1860 (including lands sold to Maws) but the buildings were bought by George Forester 1863. Now in private hands. Occupied by local worthies including Lord Dundonald and William Reynolds.

The north west is a timber framed building, two storeys, with a base, containing traces of earlier windows. The south eastern range is brick built on a red sandstone plinth, hipped roof, and projecting wing to mirror the timber framed range. Evidence for original door, and arched niches in

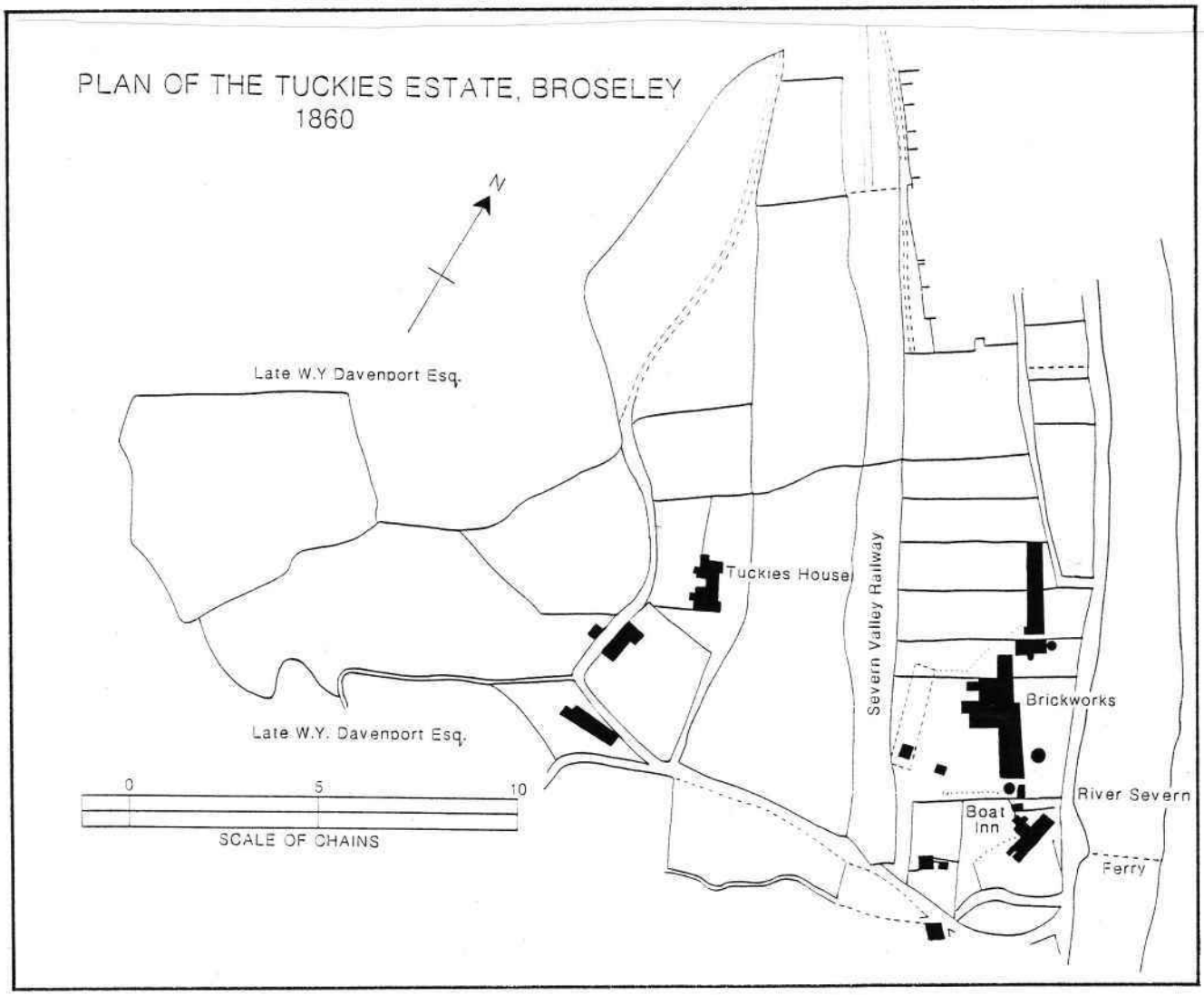


Figure 56: Plan of the Tuckies Estate, 1860 taken from a copy in IGMT library.

sandstone in front wall; first floor loggia now demolished and overhanging roof seem - from internal investigation - to be primary. Fine wooden stairway leading first floor large open room. So-called medieval window in cellar likely to be blocked opening. Alterations to the balcony reputedly carried out by William Reynolds before his death in 1803. Main range c. 1660s. 19th century alterations to the back, presumably when the house was subdivided.

The significance of the house is that it is an unusually fine building to be placed in such an isolated location, away from major agricultural lands, or traditional town centres. It looks straight across the river to the Hay, one of the other early estates in the Gorge. It was most likely rebuilt as a riverside retreat, perhaps after Francis Langleys death in 1650, perhaps by the Langley family who were then Lords of the Manor of Broseley, but had no local residence (the manor having been isolated from other properties in 1620).

SITE OF TUCKIES COLLIERY (BY 50801)

Colliery and buildings shown 1840 (T.A.736) in north eastern corner of plot, now mainly demolished SVR. Possible site of remains just to south of railway line. Proximity to Severn, and relationship with house, suggests this to be the site of Cliffords 1575 Tuckies Coal Pit. See also BY 512.

204-7 FERRY ROAD (BY 51101)

Row of 4 houses built after 1860 but before construction of Maws tileworks. Part of 736. 207 is former shop with shop front still surviving with fascia and classic doorcase. Single unit frontage, double pile in rear wings. Once owned by Maws, and probably built by Tuckies Brickworks.

203-201 FERRY ROAD (BY 51102)

Small terrace of 3 houses, slightly earlier than adjacent row. Red brick with decorative ridge cresting. Smaller than 204-7 - less height and narrower frontage. Highly similar plan.

?CHEMICAL WORKS (BY 51103)

Range of buildings shown 1860 Tuckies Estate Sale particulars (1986.6857), between old Tuckies Brickworks Buildings and "The Boat Inn". Built post 1840, demolished by 1882. 3 associated circular ?kilns to east and north east.

HOUSES (BY 51201)

Two houses 1902, now one, Building on site in 1844 (736) not domestic. Wide span with axial stack, suggesting adaptation of non-domestic building rather than complete rebuilding. Like BY 51204 below, most likely part of Tuckies Colliery.

ENGINE HOUSE AND COTTAGES (BY 51202)

House, formerly row of 2. Part was engine house, associated with Tuckies brickworks (see above). Recorded by IGMTAU. Not in domestic use in 1840. Engine house block is primary, red orange brick, flanked by added cottages, that to north partly new or rebuilt. A beam engine operated here c. 1780, pumping water into a culvert from where it ran down into the stream. During renovation in 1983 joists were observed cut away for the insertion of a

steam cylinder.

Shaft found in garden during renovations.

BOAT INN (BY 51401)

Public House, once part of row of cottages, now in use as single building. Probably 18th century, but refronted with late 19th century bricks. One and a half storeyed, with dormers to attic. Substantial timber beams and posts inside possibly remnants of earlier timber framed structure. Not a single build, the southern bay probably later addition with 2 full storeys. Both stacks axial. Once a more extensive row (southern part, including 2 single unit cottages, dem. after 1902).

SITE OF DUKE OF WELLINGTON (BY 51601)

Inn, dem. after 1902, built pre **1840.** Small range of outbuildings in front also demolished Only high retaining wall at back of site survives.

231-234 SALTHOUSES ROAD (BY 51602)

Pair of houses, built as a single development of 4 cottages, with 2 central doors flanked by 2 casement windows, with axial stacks between them to form highly symmetrical facade; no evidence of alteration to facade, suggests that other two houses must have been entered from gables. Hipped roof, pre 1840, probably early 19th century. Brown brick, kiss marks, flemish bond with burnt headers.

WERPS or COALPORT FERRY (BY 52001)

Operating early 19th century, until c. 1922 (see text section 4.5). Shown in 1986.6319, the ramp and part of the brickwork can be made out on the north bank (see Alfrey & Clark 1986), but little remains on the south side.

WERPS ?JETTY (BY 52002)

Shown 1840 as ?break water extending to south, gone by 1883. Jetty or boat arm.

THE WERPS (BY 52201-5)

5 major groups of buildings, and associated outbuildings shown 1902, demolished about 1955 in local authority slum clearance. One of these was the General Gordon public house. All in existence by 1840 nos 757-762. Some brick rear retaining walls survive on the site, with the stubs and a few returns. Remaining brickwork looks early 19th century (brown/blue and heavily burnt). General Gordon public house shown 1982.1836 and apparently an early 18th century building, one and a half storeyed and at least 3 bays long. Was owned by THomas Beard in 1895. Many china painters lived here 1840.

"CLOGGERS AREA", THE WERPS (BY52?)

Area locally identified as "cloggers area" presumably where wooden clogs and iron pattens were manufactured. No evidence in 1841 census or directories.

OLD ROPE WALK (BY 52401)

Area known in census of 1841 as Old Rope Walk, and like similar lowlying riverside area at Coalport, little use for much else. No obvious remains.

SITE OF TOLLHOUSE (BY 52601)

Shown 1840, 1883. No longer functioning 1902. On tow path, opposite Coalport Warehouse, just upstream of Coalport Bridge

SEVERN VALLEY RAILWAY LINE (BY 53501)

Line of railway, built 1862, closed 1970. See also BY 025 etc.

COALPORT STATION (BY 53502)

SVR station at south end of Coalport Bridge. The only station building in the Gorge to remain, of very white brick, perhaps similar to that used on Ironbridge Station, and possibly (despite outside contractor) locally made. Now used as a private dwelling. Platform and sheds still visible.

PREENSHEAD WOODS (BY 53601)

Wooded area, originally known as Preens Heading (Preenshead, Preens Eddy), presumably as it was entrance to a coal mine. Now a very complex landscape, with many areas of mining remains which should be explored further.

INCLINE (BY 53602)

Clear built up path leading north down a jutting spur of land in a smooth descent. Presumably built up as mining road or tramway, which originally led south towards the Amies. About 1m wide.

POSSIBLE MINE (BY 53603)

Platform 20-30m side, very flat, littered with brick and tile rubble. Possibly an old mine.

JUNK (BY 53604)

Old concrete prefabricated barn, surrounded by quantities of rubbish, but including a three wheeled ?mining bogey, rectangular, tapering towards the base, with wheels pierced by 6 holes. Also, egg ended boiler in hedge line near BY 561 - round ended, with horizontal mountings on side.

CLEARED AREA (BY 53701)

Now covered with vegetation but shown as clear 1902. Possibly a surviving meadow.

PLATFORM (BY 53801)

Clear area, taken out of surrounding woodlands. Now very flat, with scattered brickworks. Most likely to be remains of pits. Vegetation change, clear 1902, much coal waste.

RIDGE & FURROW (BY 54001)

Field showing evidence of faint ridge and furrow, about 5 ridges running north and three at right angles. The road down the Tuckies can be seen as a

faint depression, swinging west around the bottom of this field, and down into the woods.

CORBETTS DINGLE (BY 54101)

Wooded valley, clear road or pathway through it, perhaps once main route from Tuckies up to Broseley. Extensively quarried for sandstone in 19th century, and source of stone for Broseley Church. Ironstone also outcrops. Tramway of 1728 led alongside south end of river but no obvious trace remains (see below). Routes from 541 continue through this area, which would benefit from further exploration.

SITE OF OLD SHAFT (BY 54201)

Clay shaft shown SJ60SE and 1902, now visible as platform and massive tip into brook on south east side of path through Corbetts Dingle. Broseley doctors dog recently fell down it, and it may well be capped soon. Apparently the site of the Dingle Pit, sunk 1790, brick lined shaft wound by horse gin, apparently supplied Coneybury furnaces (Mugridge 1987).

SITE OF 1728 PITS (BY 54202)

Approximate location of two shafts, linked by tramway to river, shown Broseley Hall Estate Map. Also linked to waggonway. Considerable area of underground working indicated, extending to south east of pits.

CORNBATCH DINGLE TRAMWAY (BY 54203)

Shown 1728 linking two pits, presumably with river.

OLD CLAY WORKINGS (BY 54204)

Small open clay quarry, presumably associated with Tuckies Brickworks, or possibly Maws.

EARTHWORKS (BY 54205)

Complex series of earthworks in area of path leading west towards Woodhouse Farm. Perhaps associated with clay quarrying, but could also be a woodland bank or boundary of early date.

Should be further investigated.

SITE OF ROPEWALK (BY 549) and (BY 552) and (BY 553)

Ropewalk operated Burroughs 1840 (check also Onions?) running north from Handleys Hitch farm.

SITE OF AMIES (BY 55601)

Long timber framed hall, with elaborate brick chimneys. Randall says, "its windows were old diamond-pane lattices, its rooms were wainscoted to the ceiling, and enough remains of the staircase to show that it was a magnificent structure". Photograph published Randall 1879:80, although he suggests that at that date it was already in ruins and only the kitchen portion survived. He interpreted it as the old Broseley Manor.

Site today is a low mound of brick and rubble, clearly visible in the field. Does not seem to have been ploughed. Trace of front wall quite

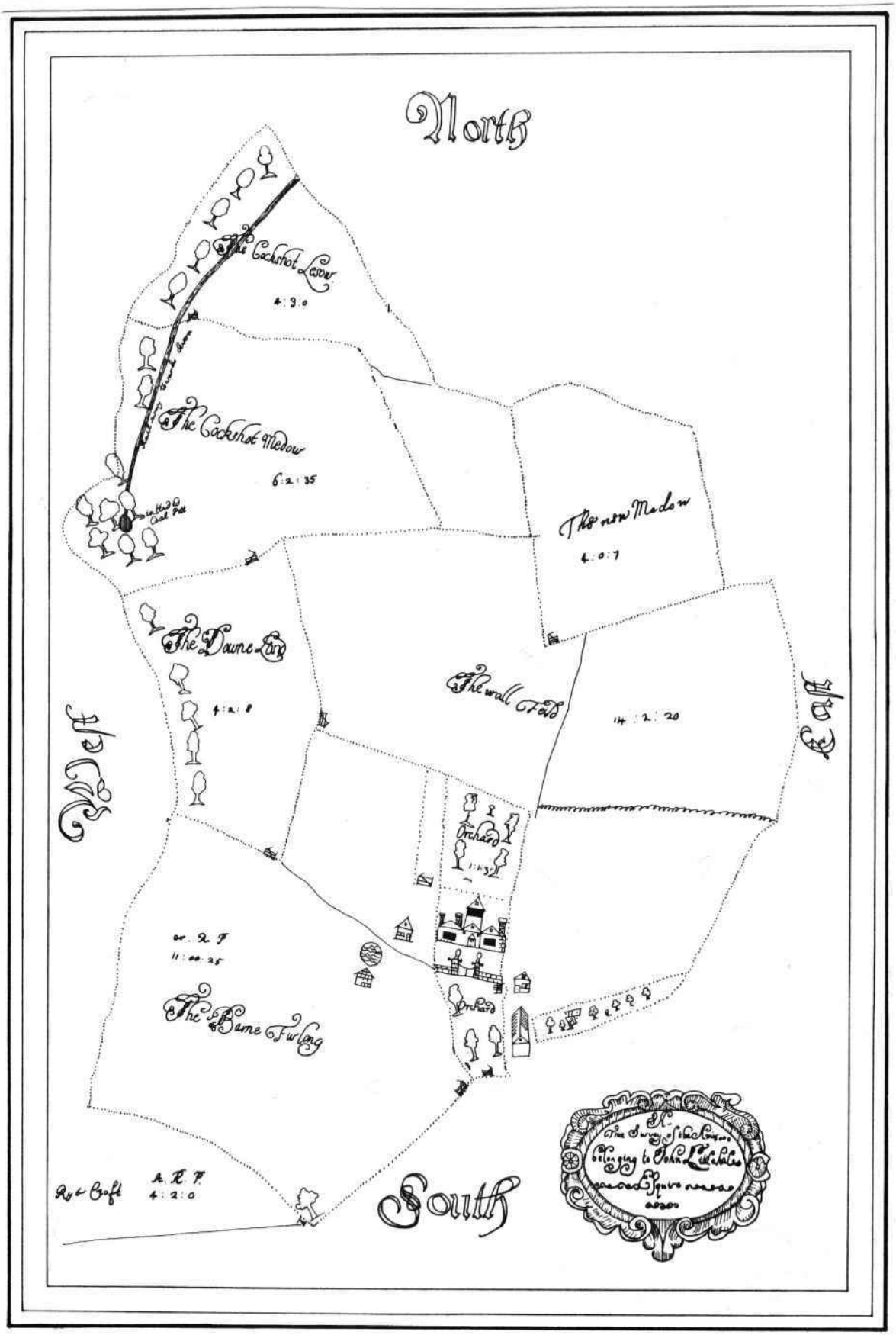


Figure 57 : "A True Survey of the Amies belonging to John Littlehales Esquire" c. 1650 SRO 1224/1/36. See also Fig. 14.

clear, rubbish also visible in eroded gateway to field. Would be an ideal candidate for a resistivity survey, as there are no overhead power lines. Bank and low ditch visible in hedge line to east.

MYSTERY BRICKWORKS (BY 57101)

"Brick & Tileworks (disused)" in 1902, there are no other references to a brickworks on this site. No hint of their identity, unless an early experimental out post for the new Coalport Brick and Tile works. 3 buildings, presumably with adjacent colliery.

?INCLINED PLANE, ROWTON (BY 57301)

In the conifer woods to the north of 590, a ramp about 10m wide can be seen. To the north the ramp has been truncated and washed away. Could relate to Rowton Tramway, but further investigation is needed. Vegetation too dense to follow route along path marked 1883 towards the Woodbridge Inn.

SITE OF GITCHFIELD HOUSE (BY 63202)

Part of the Priory lands, passed to Clifford and sold 1620. House was home of the Old family (Randall 1879). Demolished early 19th century? There was supposedly a ford here, and the site may have been a medieval crossing point.

ROWTON DOVE HOUSE (BY 59101)

Brick dovehouse, with dove boxes made of specially constructed clay bricks. Probably 18th century. Collapsing, and in need of urgent repair and survey.

SITE OF ROWTON TRAMWAY (BY 58701)

Site of tramway constructed 1702, from coal mines at Rowton to river. Absolutely nothing visible, even in ploughed field.

SITE OF ROWTON TRAMWAY (BY 59001)

See above. Field boundary with BY 589 now gone, and nothing visible.

SITE OF COALPORT BRICK WORKS (BY 63201)

Now Gitchfield sewage plant. Purpose built 1893, along with nearby workmens cottages. One of the first works to have electric light, steam powered, local clay used. The buildings were taken over by Wolverhampton Metal Co and later demolished.

ABBREVIATIONS AND NUMBERS USED IN TEXT

SRO - Shropshire Record Office
SBL - Shropshire Borough Library
KUL - Keele University Library
VCH - Victoria County History (see Bibliography)
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1621 - Dated map reference (see full list below).

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"Who's who in the Clayworkers Institute: D.L.Prestage" (Aug.1911)
"A century of brickmaking" (Jan 1901)
"Note on Jackfield" (Jun 1892)
"Tile machinery dispute" (Nov 1903)
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Tyrwhitt Jones Collection, SRO.
Cooper & Co, Broseley (SRO 1681)
Forester Collection (SRO 1224) (not available to public)
List of abandonment plans in Mining Record Office, Bootle (kindly provided by Dr Ivor Brown)
Hearth Tax, 1672
Census (1841, 1881 transcribed McKelvey 1985).

MAPS

1637-8
Plot of the Commons in Broseley, Bentall, Bradley and Wyke, by S.Parsons.
SRO 1224/1/19.

1658
Plot of the Bounds of the Common in Broseley.
SRO 1224/1/21.

1676
Map showing lands through which mining insets passed.
SRO 3703/10.

c.1621
The Plott of Broseley.
by Samuel Parsons with ammendments by Francis Langley.
SRO 1224/1/32.

1658
Map of Langley's Tenement.
SRO 1224/1/33.

1728
Broseley Hall Estate Map
In two folios, with additions in the 1760s and early 19th century.
SBL.

1752
"Carte Topographique de la Comte de Salop ou Shropshire"
by John Rocque.
SBL/microfilm in IGMT library.

1808
Map of Shropshire
Robert Baugh

1814-5
Ordnance Survey Draft Map Sheet 213.
2" to the mile.
SBL/IGMT library.

1827
"Map of the County of Salop from an Actual Survey made in the years 1826 and 1827"
J. & C. Greenwood.
1" to the mile.
SRO/SBL/IGMT microfilm.

1833
First Edition Ordnance Survey Map.
Sheet 41. Shrewsbury.
1 " to the mile.
Reprinted David & Charles, 1980.

1846
Railway Deposited Plan.
SRO.

1860
Plan of the Tuckies Estate in the Parish of Broseley, Salop.
G.Hammond, Surveyor, Adeney, Newport, Salop.
2 chains to the inch.
Copy in IGMT library.

1883
First Edition Ordnance Survey Map.
Sheets 43.14, 43.15, 51.2, 51.3, 51.6, 51.7
25" to the mile.

1902.
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Sheets 43.14, 43.15, 51.2, 51.3, 51.6, 51.7.
IGMT Library.

1927
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1956
Revised Edition 1:2500 Ordnance Survey Map.
Sheets 6703, 6803, 6702, 6802, 6902,
IGMT Library.

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1:10560.
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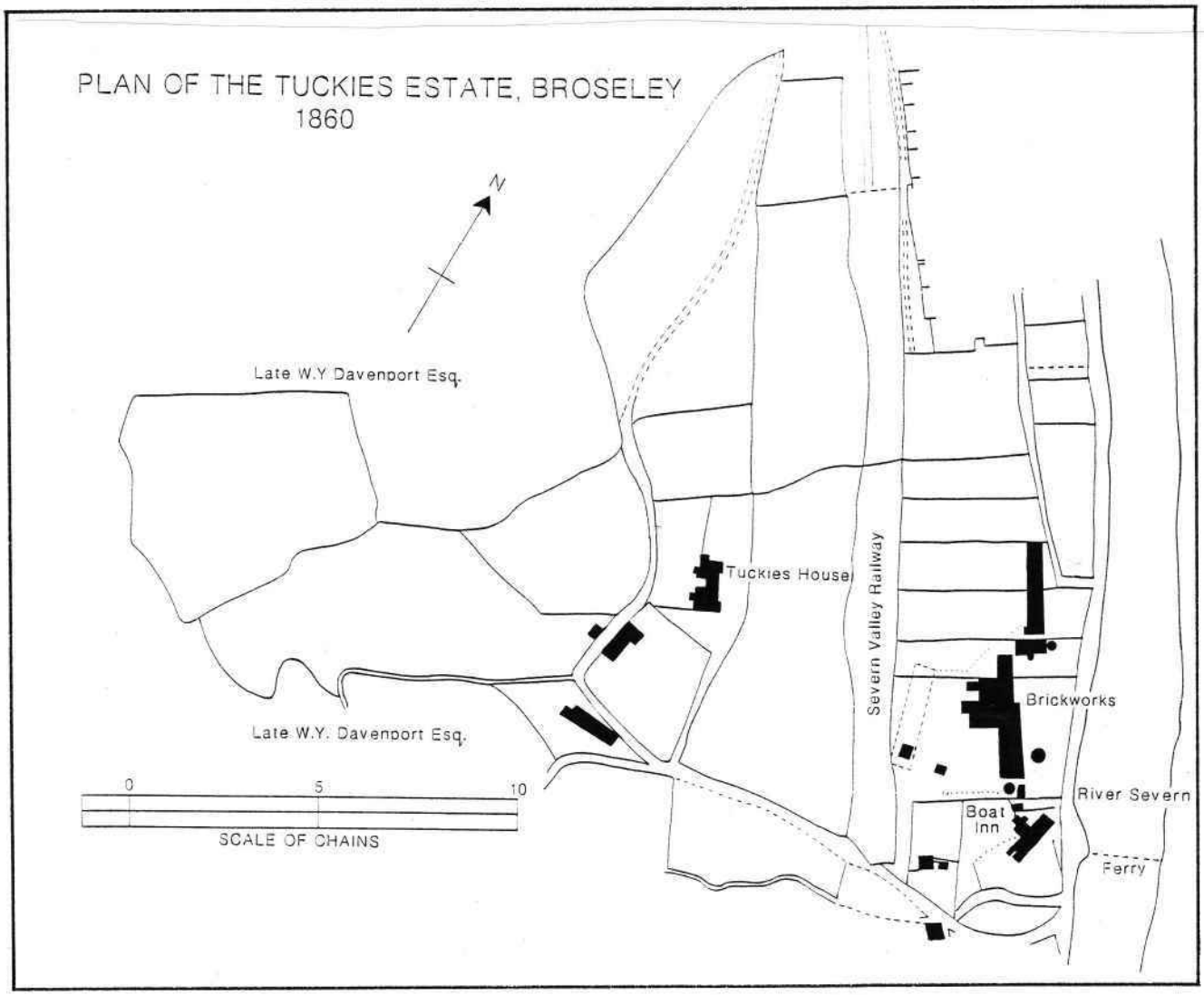

Figure 56: Plan of the Tuckies Estate, 1860 taken from a copy in IGMT library.

sandstone in front wall; first floor loggia now demolished and overhanging roof seem - from internal investigation - to be primary. Fine wooden stairway leading first floor large open room. So-called medieval window in cellar likely to be blocked opening. Alterations to the balcony reputedly carried out by William Reynolds before his death in 1803. Main range c. 1660s. 19th century alterations to the back, presumably when the house was subdivided.

The significance of the house is that it is an unusually fine building to be placed in such an isolated location, away from major agricultural lands, or traditional town centres. It looks straight across the river to the Hay, one of the other early estates in the Gorge. It was most likely rebuilt as a riverside retreat, perhaps after Francis Langleys death in 1650, perhaps by the Langley family who were then Lords of the Manor of Broseley, but had no local residence (the manor having been isolated from other properties in 1620).

SITE OF TUCKIES COLLIERY (BY 50801)

Colliery and buildings shown 1840 (T.A.736) in north eastern corner of plot, now mainly demolished SVR. Possible site of remains just to south of railway line. Proximity to Severn, and relationship with house, suggests this to be the site of Cliffords 1575 Tuckies Coal Pit. See also BY 512.

204-7 FERRY ROAD (BY 51101)

Row of 4 houses built after 1860 but before construction of Maws tileworks. Part of 736. 207 is former shop with shop front still surviving with fascia and classic doorcase. Single unit frontage, double pile in rear wings. Once owned by Maws, and probably built by Tuckies Brickworks.

203-201 FERRY ROAD (BY 51102)

Small terrace of 3 houses, slightly earlier than adjacent row. Red brick with decorative ridge cresting. Smaller than 204-7 - less height and narrower frontage. Highly similar plan.

?CHEMICAL WORKS (BY 51103)

Range of buildings shown 1860 Tuckies Estate Sale particulars (1986.6857), between old Tuckies Brickworks Buildings and "The Boat Inn". Built post 1840, demolished by 1882. 3 associated circular ?kilns to east and north east.

HOUSES (BY 51201)

Two houses 1902, now one, Building on site in 1844 (736) not domestic. Wide span with axial stack, suggesting adaptation of non-domestic building rather than complete rebuilding. Like BY 51204 below, most likely part of Tuckies Colliery.

ENGINE HOUSE AND COTTAGES (BY 51202)

House, formerly row of 2. Part was engine house, associated with Tuckies brickworks (see above). Recorded by IGMTAU. Not in domestic use in 1840. Engine house block is primary, red orange brick, flanked by added cottages, that to north partly new or rebuilt. A beam engine operated here c. 1780, pumping water into a culvert from where it ran down into the stream. During renovation in 1983 joists were observed cut away for the insertion of a

steam cylinder.

Shaft found in garden during renovations.

BOAT INN (BY 51401)

Public House, once part of row of cottages, now in use as single building. Probably 18th century, but refronted with late 19th century bricks. One and a half storeyed, with dormers to attic. Substantial timber beams and posts inside possibly remnants of earlier timber framed structure. Not a single build, the southern bay probably later addition with 2 full storeys. Both stacks axial. Once a more extensive row (southern part, including 2 single unit cottages, dem. after 1902).

SITE OF DUKE OF WELLINGTON (BY 51601)

Inn, dem. after 1902, built pre **1840.** Small range of outbuildings in front also demolished Only high retaining wall at back of site survives.

231-234 SALTHOUSES ROAD (BY 51602)

Pair of houses, built as a single development of 4 cottages, with 2 central doors flanked by 2 casement windows, with axial stacks between them to form highly symmetrical facade; no evidence of alteration to facade, suggests that other two houses must have been entered from gables. Hipped roof, pre 1840, probably early 19th century. Brown brick, kiss marks, flemish bond with burnt headers.

WERPS or COALPORT FERRY (BY 52001)

Operating early 19th century, until c. 1922 (see text section 4.5). Shown in 1986.6319, the ramp and part of the brickwork can be made out on the north bank (see Alfrey & Clark 1986), but little remains on the south side.

WERPS ?JETTY (BY 52002)

Shown 1840 as ?break water extending to south, gone by 1883. Jetty or boat arm.

THE WERPS (BY 52201-5)

5 major groups of buildings, and associated outbuildings shown 1902, demolished about 1955 in local authority slum clearance. One of these was the General Gordon public house. All in existence by 1840 nos 757-762. Some brick rear retaining walls survive on the site, with the stubs and a few returns. Remaining brickwork looks early 19th century (brown/blue and heavily burnt). General Gordon public house shown 1982.1836 and apparently an early 18th century building, one and a half storeyed and at least 3 bays long. Was owned by THomas Beard in 1895. Many china painters lived here 1840.

"CLOGGERS AREA", THE WERPS (BY52?)

Area locally identified as "cloggers area" presumably where wooden clogs and iron pattens were manufactured. No evidence in 1841 census or directories.

OLD ROPE WALK (BY 52401)

Area known in census of 1841 as Old Rope Walk, and like similar lowlying riverside area at Coalport, little use for much else. No obvious remains.

SITE OF TOLLHOUSE (BY 52601)

Shown 1840, 1883. No longer functioning 1902. On tow path, opposite Coalport Warehouse, just upstream of Coalport Bridge

SEVERN VALLEY RAILWAY LINE (BY 53501)

Line of railway, built 1862, closed 1970. See also BY 025 etc.

COALPORT STATION (BY 53502)

SVR station at south end of Coalport Bridge. The only station building in the Gorge to remain, of very white brick, perhaps similar to that used on Ironbridge Station, and possibly (despite outside contractor) locally made. Now used as a private dwelling. Platform and sheds still visible.

PREENSHEAD WOODS (BY 53601)

Wooded area, originally known as Preens Heading (Preenshead, Preens Eddy), presumably as it was entrance to a coal mine. Now a very complex landscape, with many areas of mining remains which should be explored further.

INCLINE (BY 53602)

Clear built up path leading north down a jutting spur of land in a smooth descent. Presumably built up as mining road or tramway, which originally led south towards the Amies. About 1m wide.

POSSIBLE MINE (BY 53603)

Platform 20-30m side, very flat, littered with brick and tile rubble. Possibly an old mine.

JUNK (BY 53604)

Old concrete prefabricated barn, surrounded by quantities of rubbish, but including a three wheeled ?mining bogey, rectangular, tapering towards the base, with wheels pierced by 6 holes. Also, egg ended boiler in hedge line near BY 561 - round ended, with horizontal mountings on side.

CLEARED AREA (BY 53701)

Now covered with vegetation but shown as clear 1902. Possibly a surviving meadow.

PLATFORM (BY 53801)

Clear area, taken out of surrounding woodlands. Now very flat, with scattered brickworks. Most likely to be remains of pits. Vegetation change, clear 1902, much coal waste.

RIDGE & FURROW (BY 54001)

Field showing evidence of faint ridge and furrow, about 5 ridges running north and three at right angles. The road down the Tuckies can be seen as a

faint depression, swinging west around the bottom of this field, and down into the woods.

CORBETTS DINGLE (BY 54101)

Wooded valley, clear road or pathway through it, perhaps once main route from Tuckies up to Broseley. Extensively quarried for sandstone in 19th century, and source of stone for Broseley Church. Ironstone also outcrops. Tramway of 1728 led alongside south end of river but no obvious trace remains (see below). Routes from 541 continue through this area, which would benefit from further exploration.

SITE OF OLD SHAFT (BY 54201)

Clay shaft shown SJ60SE and 1902, now visible as platform and massive tip into brook on south east side of path through Corbetts Dingle. Broseley doctors dog recently fell down it, and it may well be capped soon. Apparently the site of the Dingle Pit, sunk 1790, brick lined shaft wound by horse gin, apparently supplied Coneybury furnaces (Mugridge 1987).

SITE OF 1728 PITS (BY 54202)

Approximate location of two shafts, linked by tramway to river, shown Broseley Hall Estate Map. Also linked to waggonway. Considerable area of underground working indicated, extending to south east of pits.

CORNBATCH DINGLE TRAMWAY (BY 54203)

Shown 1728 linking two pits, presumably with river.

OLD CLAY WORKINGS (BY 54204)

Small open clay quarry, presumably associated with Tuckies Brickworks, or possibly Maws.

EARTHWORKS (BY 54205)

Complex series of earthworks in area of path leading west towards Woodhouse Farm. Perhaps associated with clay quarrying, but could also be a woodland bank or boundary of early date.

Should be further investigated.

SITE OF ROPEWALK (BY 549) and (BY 552) and (BY 553)

Ropewalk operated Burroughs 1840 (check also Onions?) running north from Handleys Hitch farm.

SITE OF AMIES (BY 55601)

Long timber framed hall, with elaborate brick chimneys. Randall says, "its windows were old diamond-pane lattices, its rooms were wainscoted to the ceiling, and enough remains of the staircase to show that it was a magnificent structure". Photograph published Randall 1879:80, although he suggests that at that date it was already in ruins and only the kitchen portion survived. He interpreted it as the old Broseley Manor.

Site today is a low mound of brick and rubble, clearly visible in the field. Does not seem to have been ploughed. Trace of front wall quite

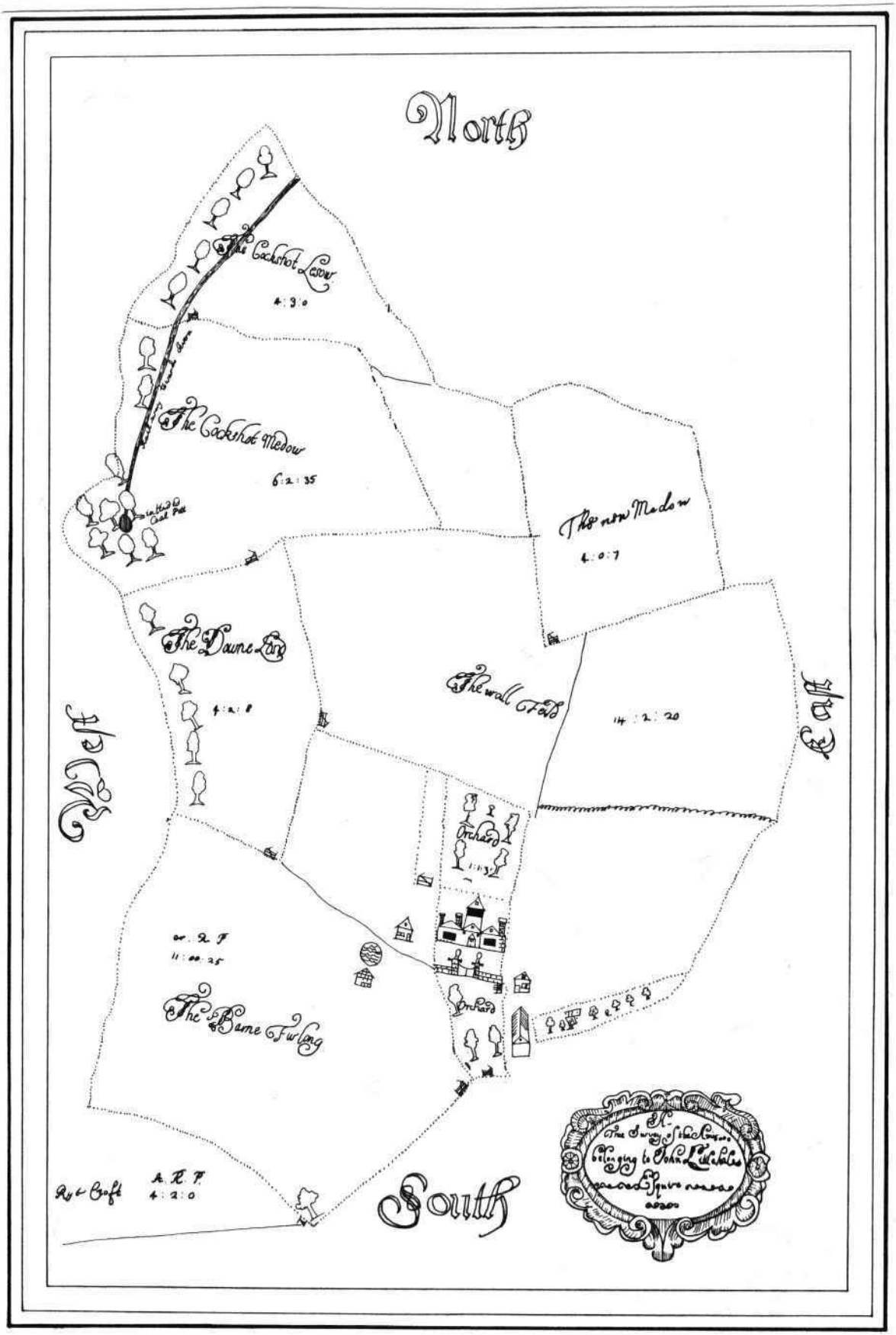

Figure 57 : "A True Survey of the Amies belonging to John Littlehales Esquire" c. 1650 SRO 1224/1/36. See also Fig. 14.

clear, rubbish also visible in eroded gateway to field. Would be an ideal candidate for a resistivity survey, as there are no overhead power lines. Bank and low ditch visible in hedge line to east.

MYSTERY BRICKWORKS (BY 57101)

"Brick & Tileworks (disused)" in 1902, there are no other references to a brickworks on this site. No hint of their identity, unless an early experimental out post for the new Coalport Brick and Tile works. 3 buildings, presumably with adjacent colliery.

?INCLINED PLANE, ROWTON (BY 57301)

In the conifer woods to the north of 590, a ramp about 10m wide can be seen. To the north the ramp has been truncated and washed away. Could relate to Rowton Tramway, but further investigation is needed. Vegetation too dense to follow route along path marked 1883 towards the Woodbridge Inn.

SITE OF GITCHFIELD HOUSE (BY 63202)

Part of the Priory lands, passed to Clifford and sold 1620. House was home of the Old family (Randall 1879). Demolished early 19th century? There was supposedly a ford here, and the site may have been a medieval crossing point.

ROWTON DOVE HOUSE (BY 59101)

Brick dovehouse, with dove boxes made of specially constructed clay bricks. Probably 18th century. Collapsing, and in need of urgent repair and survey.

SITE OF ROWTON TRAMWAY (BY 58701)

Site of tramway constructed 1702, from coal mines at Rowton to river. Absolutely nothing visible, even in ploughed field.

SITE OF ROWTON TRAMWAY (BY 59001)

See above. Field boundary with BY 589 now gone, and nothing visible.

SITE OF COALPORT BRICK WORKS (BY 63201)

Now Gitchfield sewage plant. Purpose built 1893, along with nearby workmens cottages. One of the first works to have electric light, steam powered, local clay used. The buildings were taken over by Wolverhampton Metal Co and later demolished.

ABBREVIATIONS AND NUMBERS USED IN TEXT

SRO - Shropshire Record Office
SBL - Shropshire Borough Library
KUL - Keele University Library
VCH - Victoria County History (see Bibliography)
IGMT - Ironbridge Gorge Museums Trust

1981.2314 - IGMT acquisition number - normally referring to a picture.
JF 83A - IGMT archaeology unit fieldwork number, referred to on card index held in Ironbridge Institute.
BY 09301 - Nuffield survey plot number. See explanation Chapter 1.
1621 - Dated map reference (see full list below).

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MAPS

1637-8
Plot of the Commons in Broseley, Bentall, Bradley and Wyke, by S.Parsons.
SRO 1224/1/19.

1658
Plot of the Bounds of the Common in Broseley.
SRO 1224/1/21.

1676
Map showing lands through which mining insets passed.
SRO 3703/10.

c.1621
The Plott of Broseley.
by Samuel Parsons with ammendments by Francis Langley.
SRO 1224/1/32.

1658
Map of Langley's Tenement.
SRO 1224/1/33.

1728
Broseley Hall Estate Map
In two folios, with additions in the 1760s and early 19th century.
SBL.

1752
"Carte Topographique de la Comte de Salop ou Shropshire"
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SBL/microfilm in IGMT library.

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Map of Shropshire
Robert Baugh

1814-5
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2" to the mile.
SBL/IGMT library.

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SRO/SBL/IGMT microfilm.

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1846
Railway Deposited Plan.
SRO.

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Plan of the Tuckies Estate in the Parish of Broseley, Salop.
G.Hammond, Surveyor, Adeney, Newport, Salop.
2 chains to the inch.
Copy in IGMT library.

1883
First Edition Ordnance Survey Map.
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25" to the mile.

1902.
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Revised Edition 1:2500 Ordnance Survey Map.
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IGMT Library.

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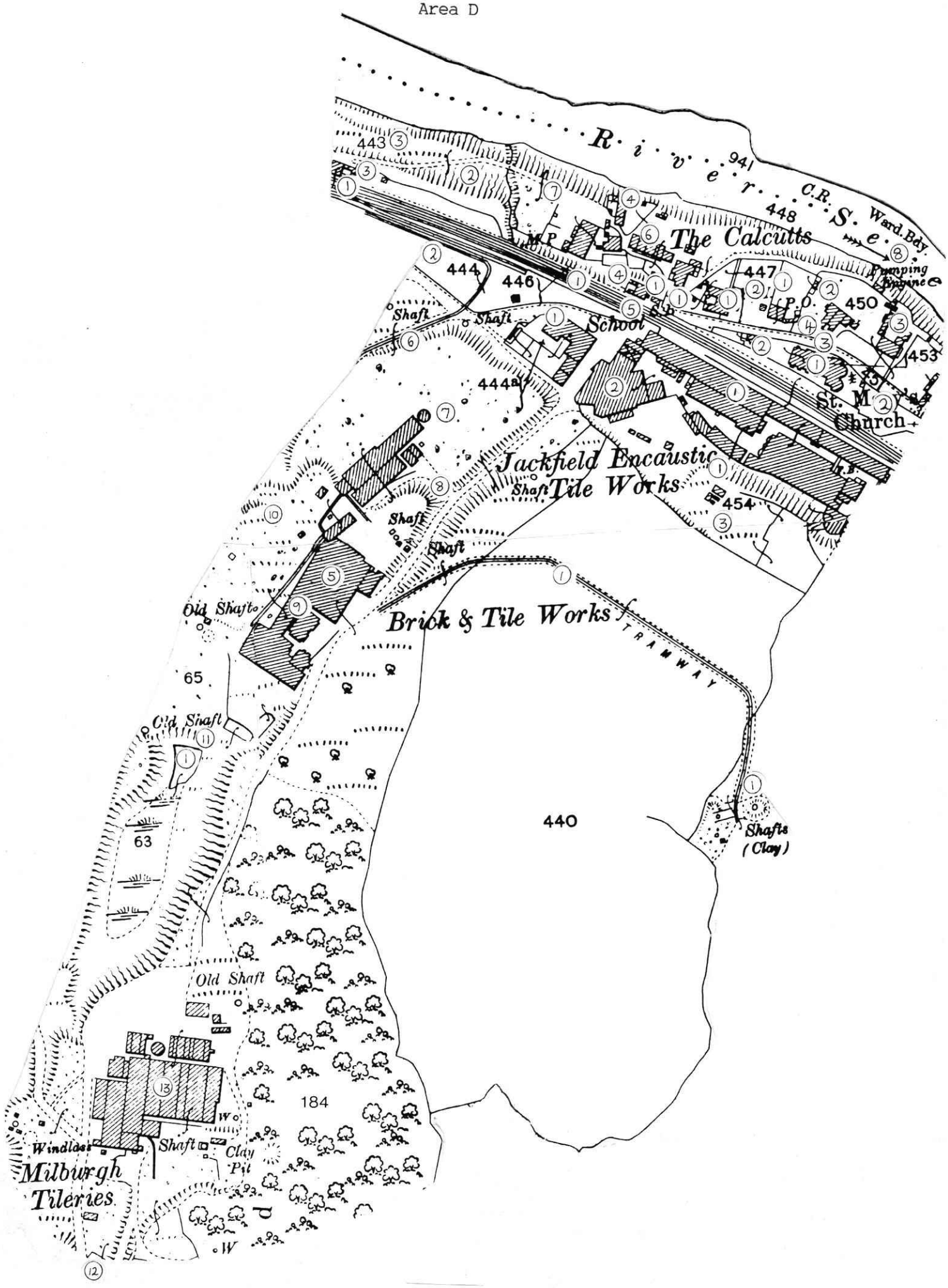
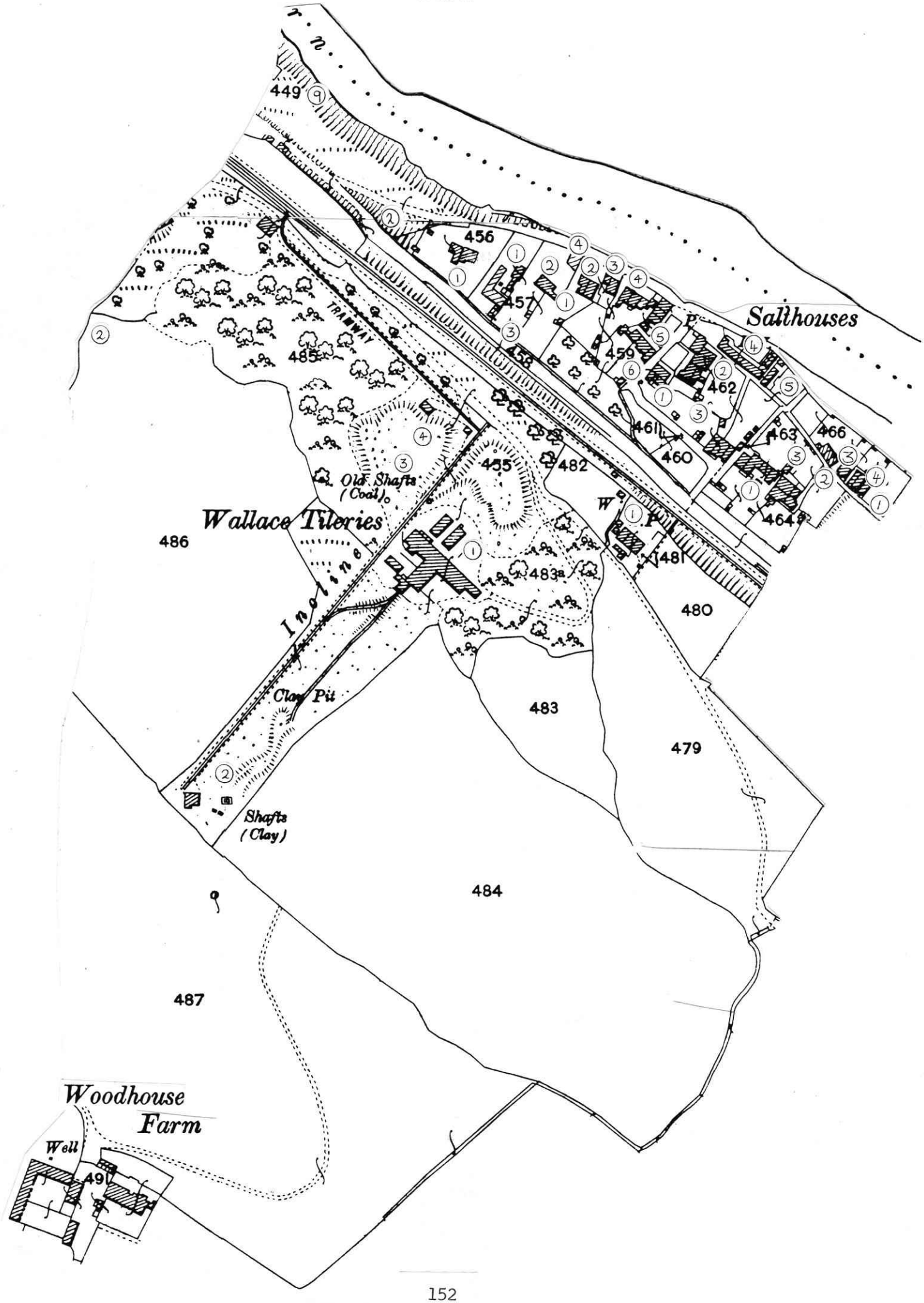

R i v e r
941
C.R.S.
Ward Bdy.
443
448
The Calcutts
Pumping Engine
444
446
447
P.O.
450
Shaft
Shaft
School
453
444a
St. M
Church
Jackfield Encaustic
Tile Works
Shaft
454
Shaft
Shaft
Old Shafts
Brick & Tile Works
TRAMWAY
65
Old Shaft
440
63
Shafts
(Clay)
Old Shaft
184
Windlass
Shaft
Clay
Pit
Milburgh
Tileries
W
W


449
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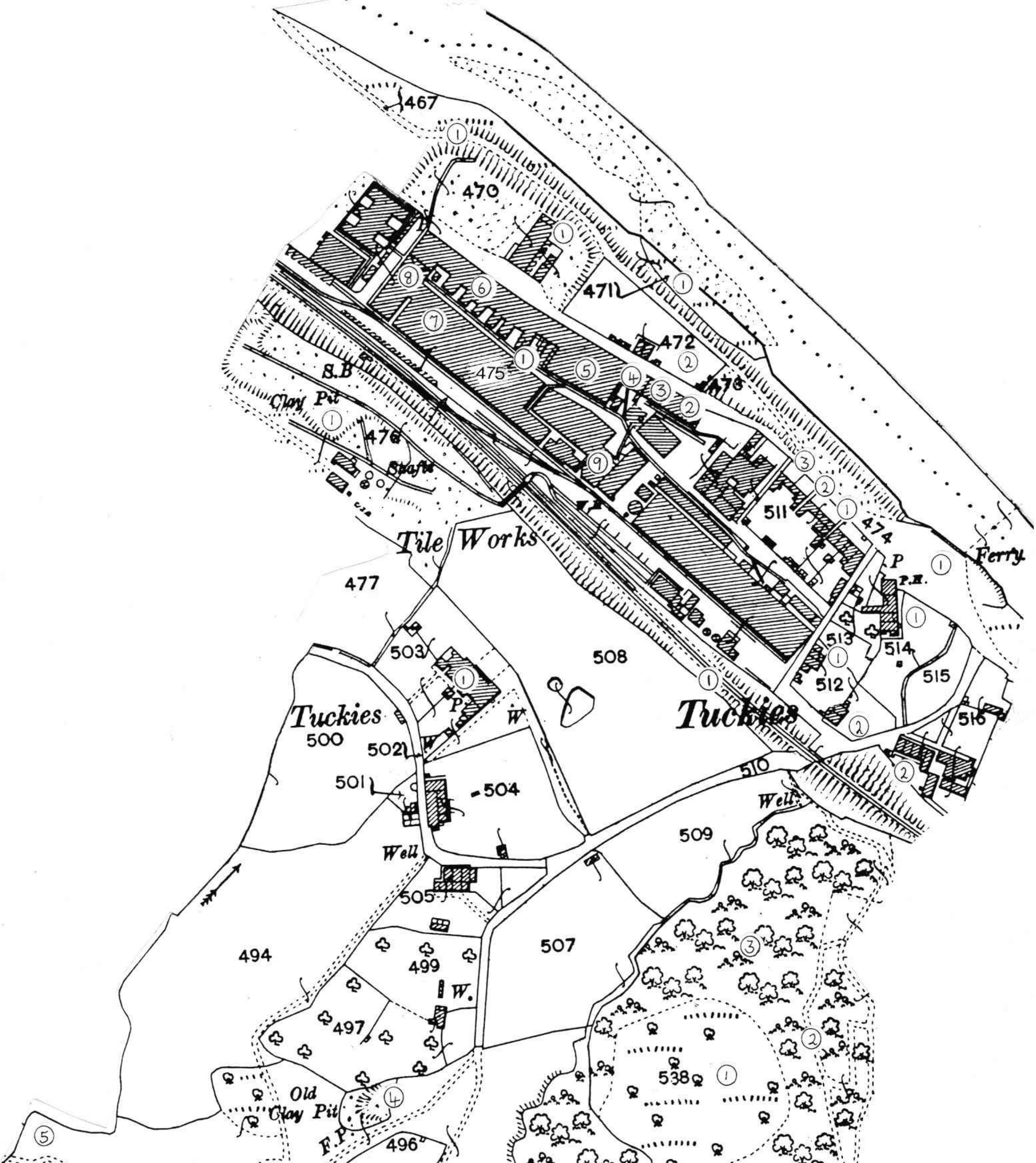
466
Salthouses
TRAMWAY
485
Old Shafts (Coal)
455
482
Wallace Tileries
486
Incline
483a
481
480
Clay Pit
483
479
Shafts (Clay)
484
487
Woodhouse Farm
Well
49


467
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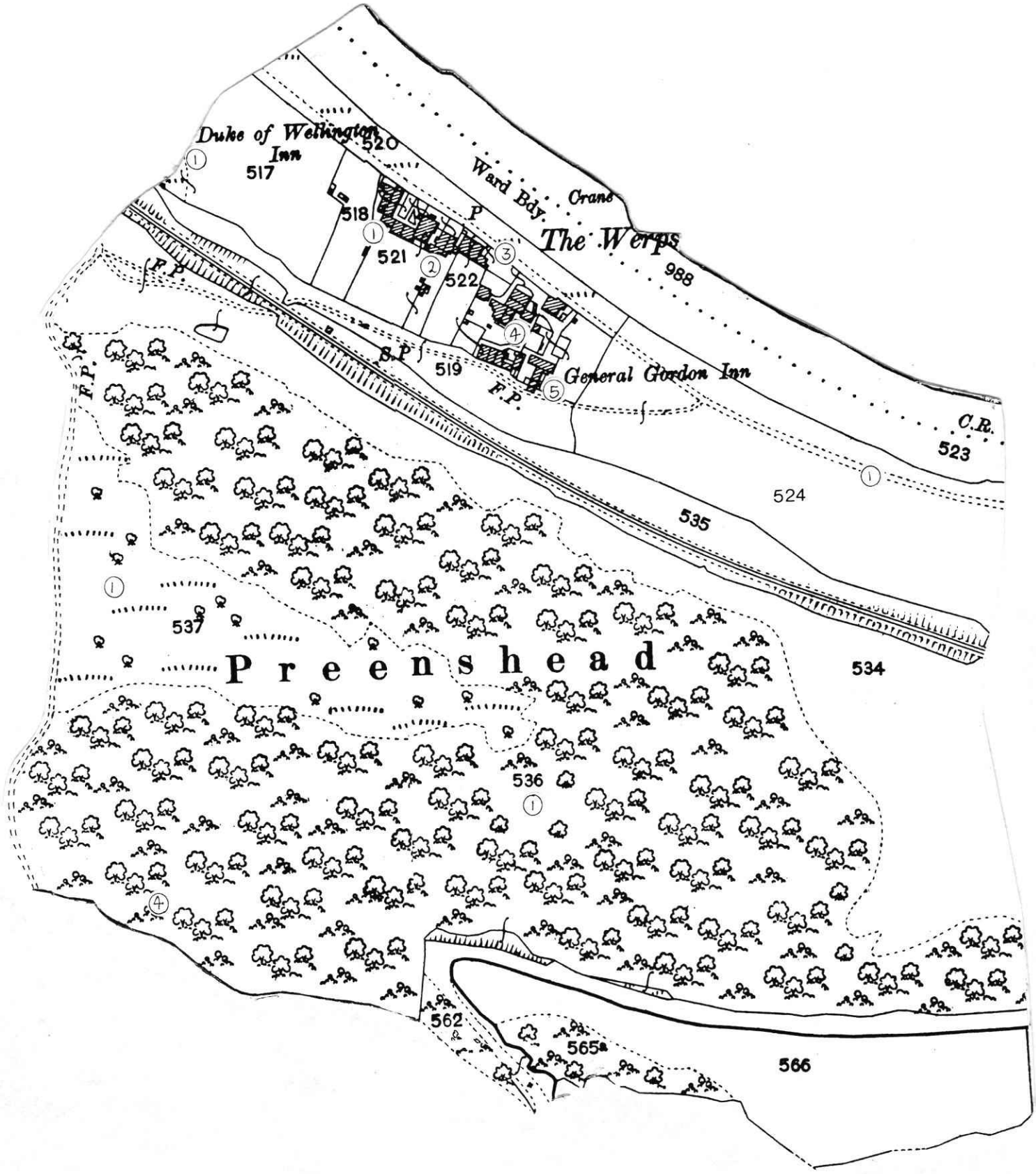
S.B
Clay Pit
Shafts
Tile Works
477
503
508
Tuckies
500
502
501
504
Well
505
494
499
W.
507
509
510
511
512
513
514
515
516
Tuckies
Ferry
P.H.
Well
497
Old Clay Pit
F.P.
496
542
Old Shaft
(Clay)
538
536
Dingle


Duke of Wellington Inn
517
520
Ward Bdy.
Crane
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The Werps
988
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General Gordon Inn
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537
Preenshead
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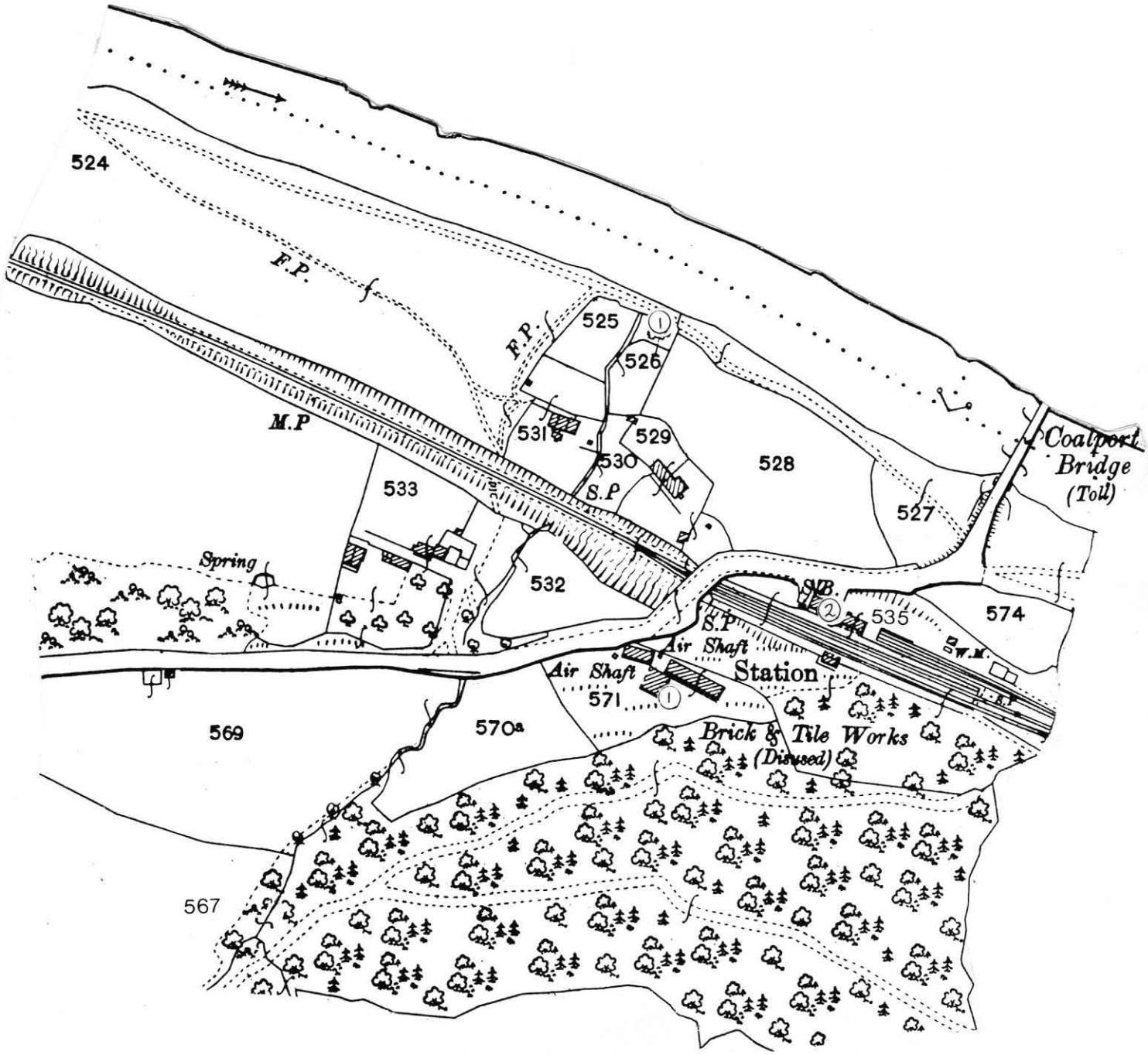
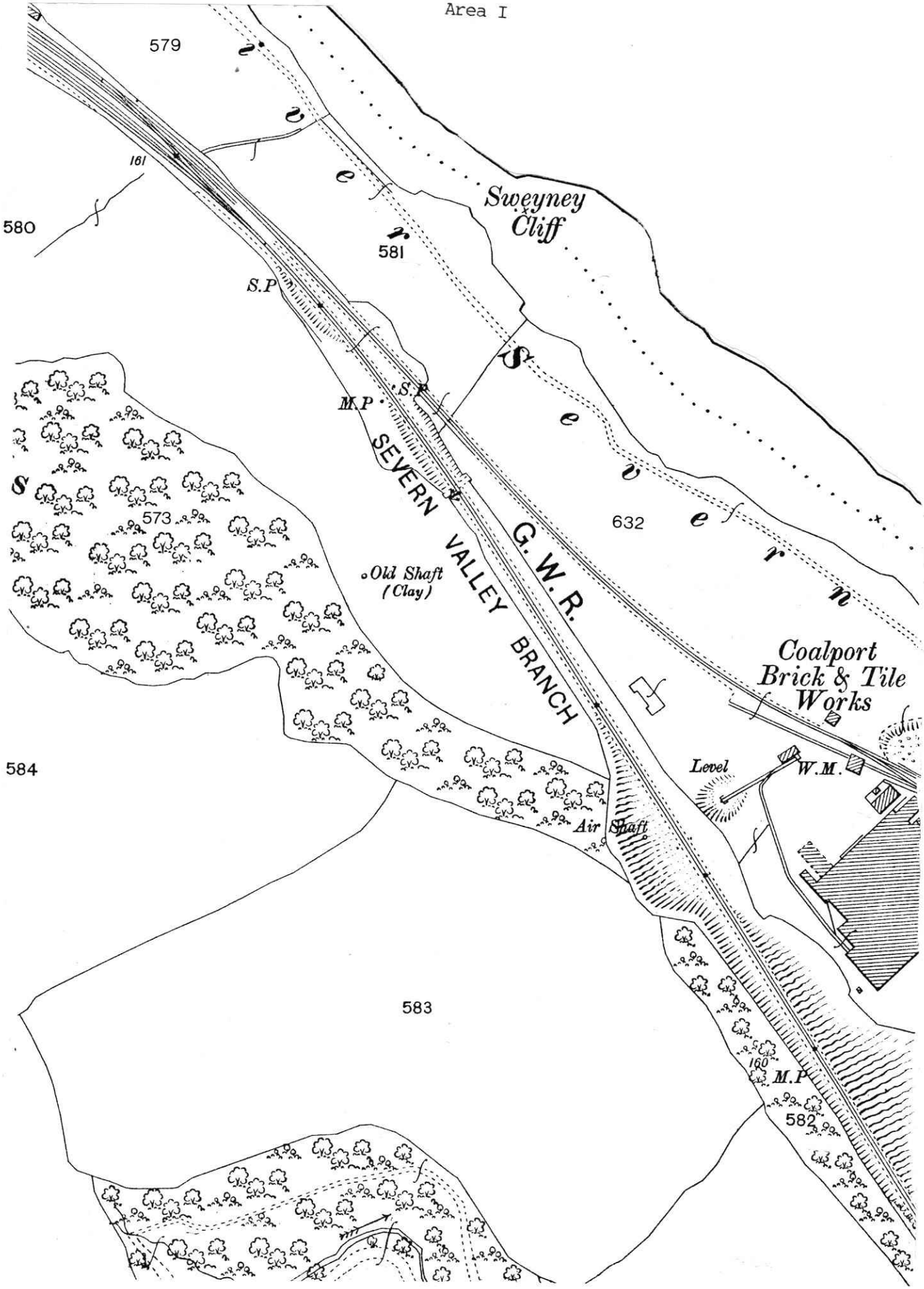
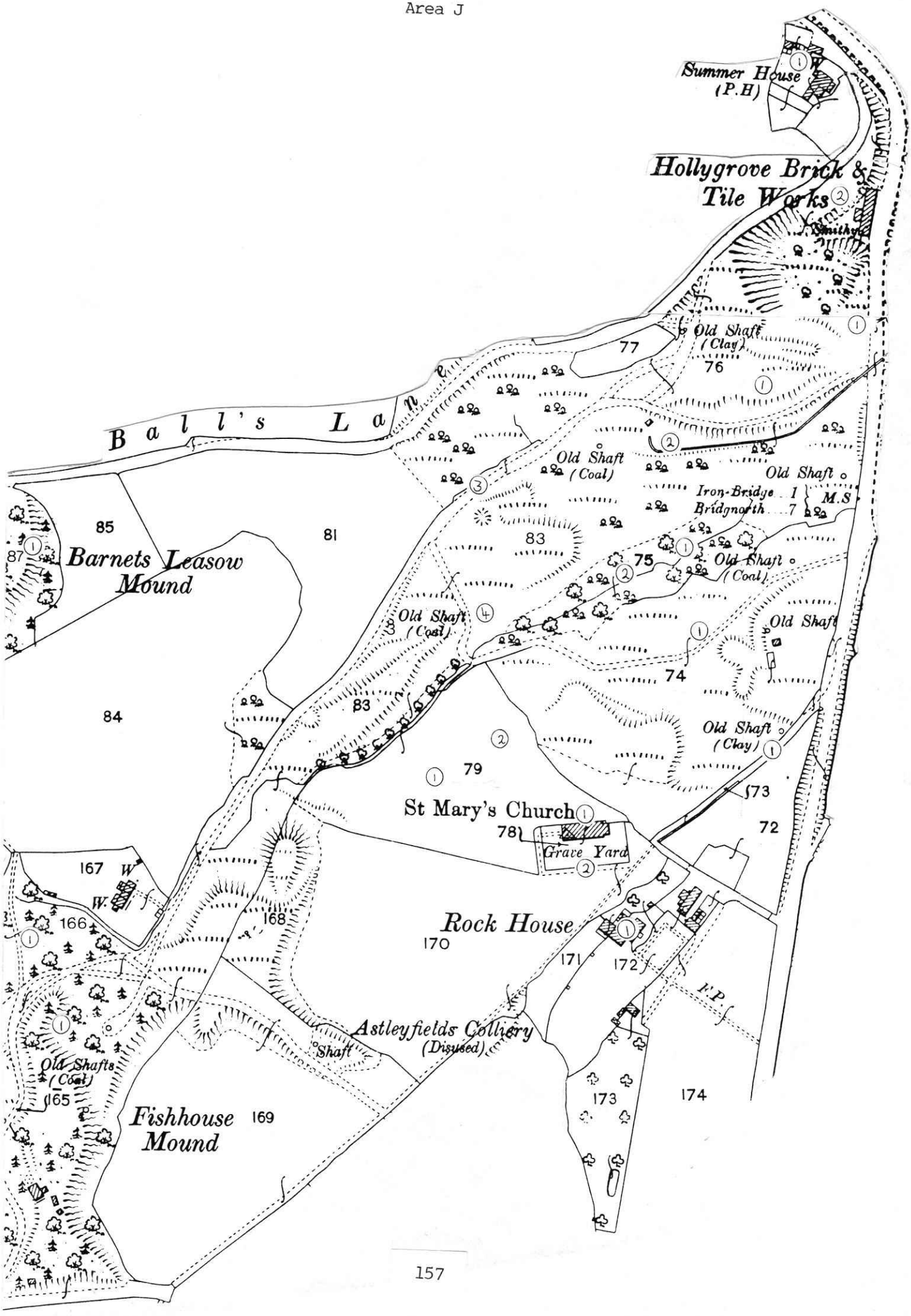
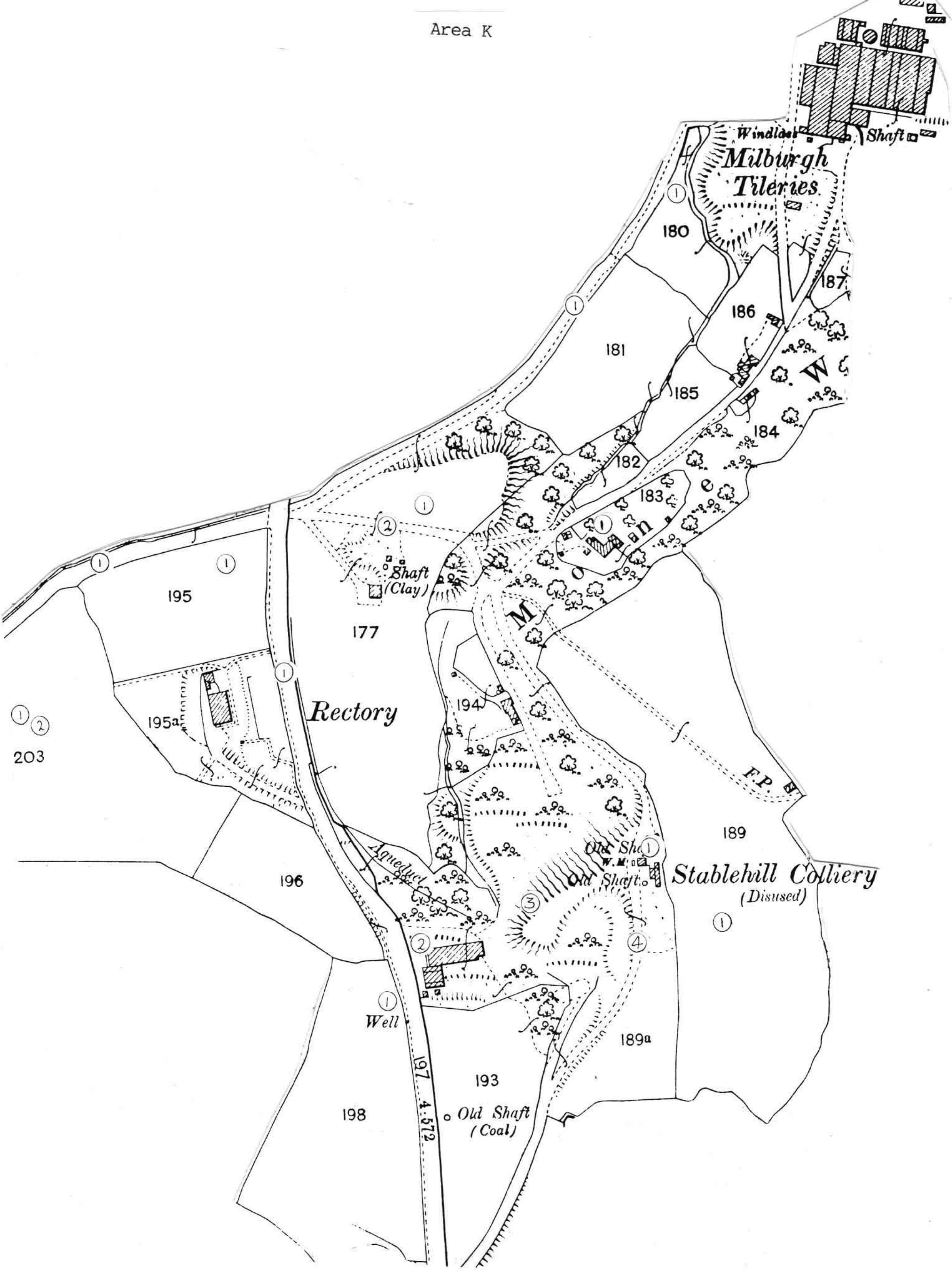
562
565a
566


524
F.P.
F.P.
525
526
M.P
531
529
530
528
533
S.P
527
Coalport
Bridge
(Toll)
Spring
532
S.B.
535
574
S.P
Air Shaft
Station
Air Shaft
571
569
570a
Brick & Tile Works
(Disused)
567


579
161
580
581
Sweyney Cliff
S.P
M.P
S.P
SEVERN VALLEY BRANCH G.W.R.
573
632
Old Shaft (Clay)
Coalport Brick & Tile Works
584
Level
W.M.
Air Shaft
583
160
M.P
582


Summer House
(P.H)
Hollygrove Brick &
Tile Works
Smithy
Old Shaft
(Clay)
77
76
Ball's La
Old Shaft
(Coal)
Old Shaft
Iron-Bridge 1 M.S
Bridgnorth 7
85
81
83
87
Barnets Leasow
Mound
75
Old Shaft
(Coal)
Old Shaft
(Coal)
Old Shaft
74
84
83
Old Shaft
(Clay)
79
St Mary's Church
73
78
72
Grave Yard
167
W
W.
166
168
Rock House
170
171
172
F.P.
Astleyfields Colliery
(Disused)
Shaft
Old Shafts
(Coal)
165
173
174
Fishhouse
Mound
169


Milburgh Tileries
Windlass
Shaft
180
181
182
183
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186
187
Rectory
Shaft (Clay)
177
195
195a
203
194
196
Aqueduct
Old Shaft
W.M.
Old Shaft
Stablehill Colliery (Disused)
189
189a
F.P.
Well
193
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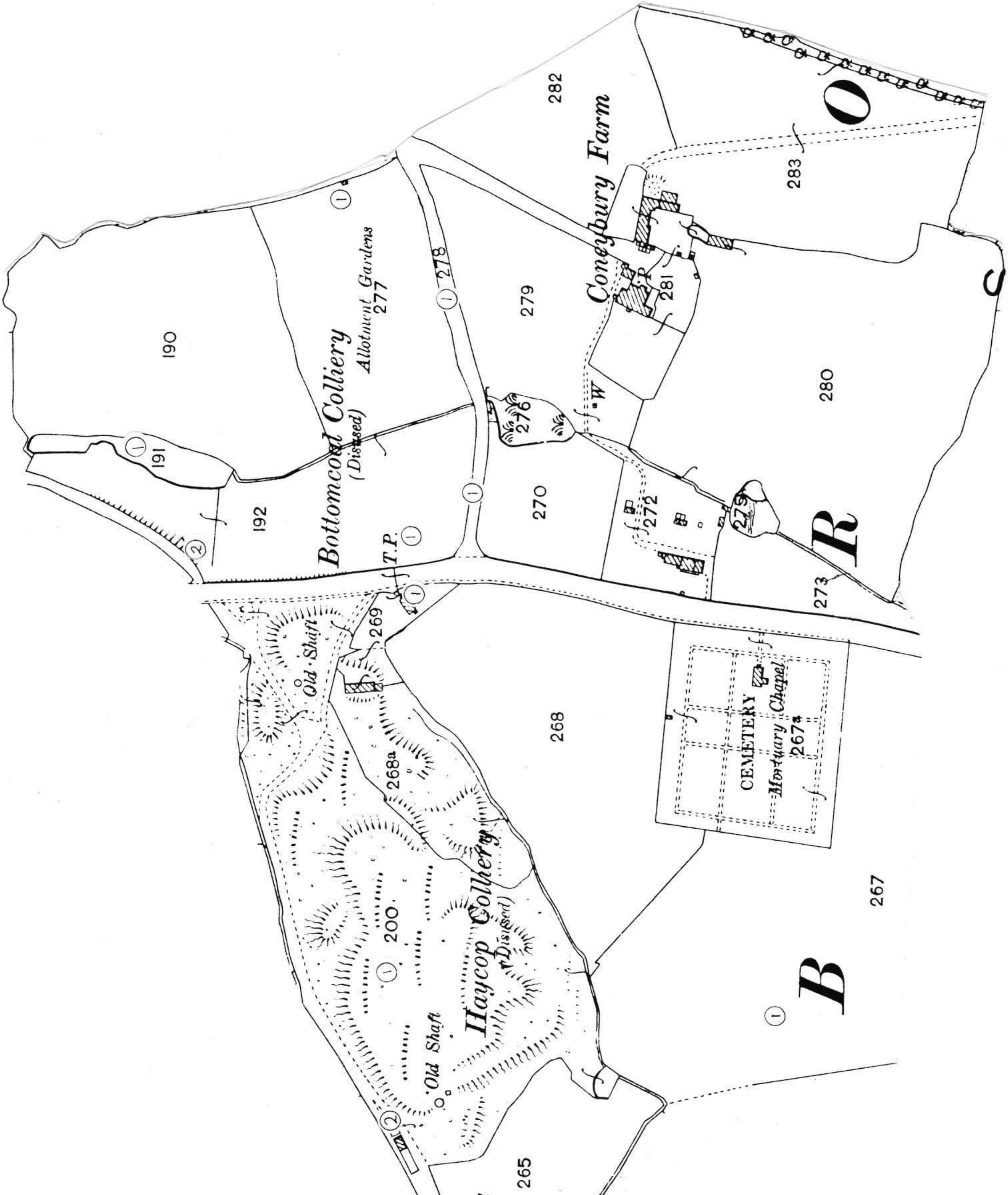
197 4.572
Old Shaft (Coal)


Coneybury Farm
Bottomcoal Colliery
(Disused)
Allotment Gardens
Haycop Colliery
(Disused)
Old Shaft
Old Shaft
CEMETERY
Mortuary Chapel
Down Well
(Covered)
Reservoir
T.P.
W
190
191
192
200
265
267
267a
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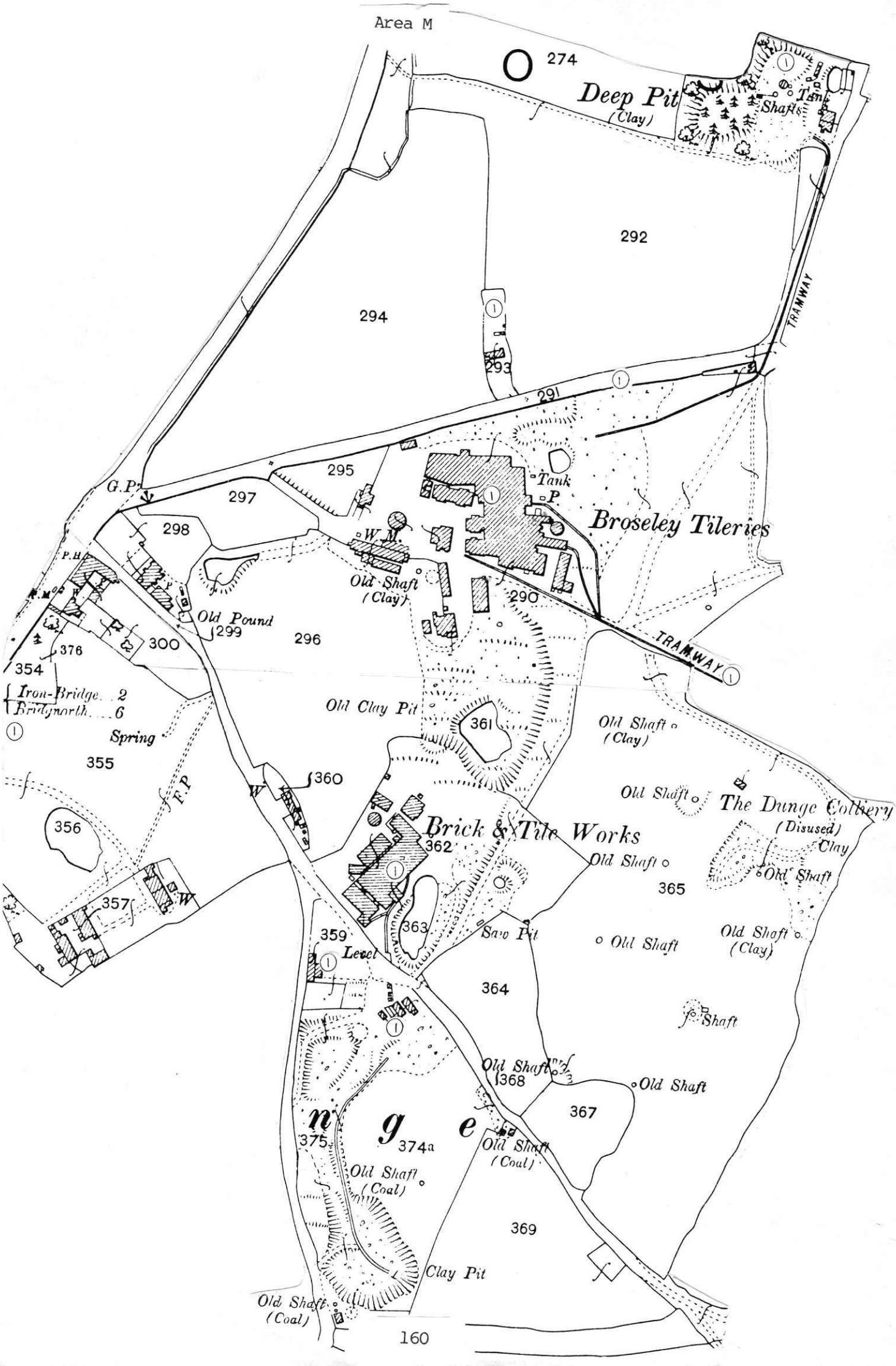
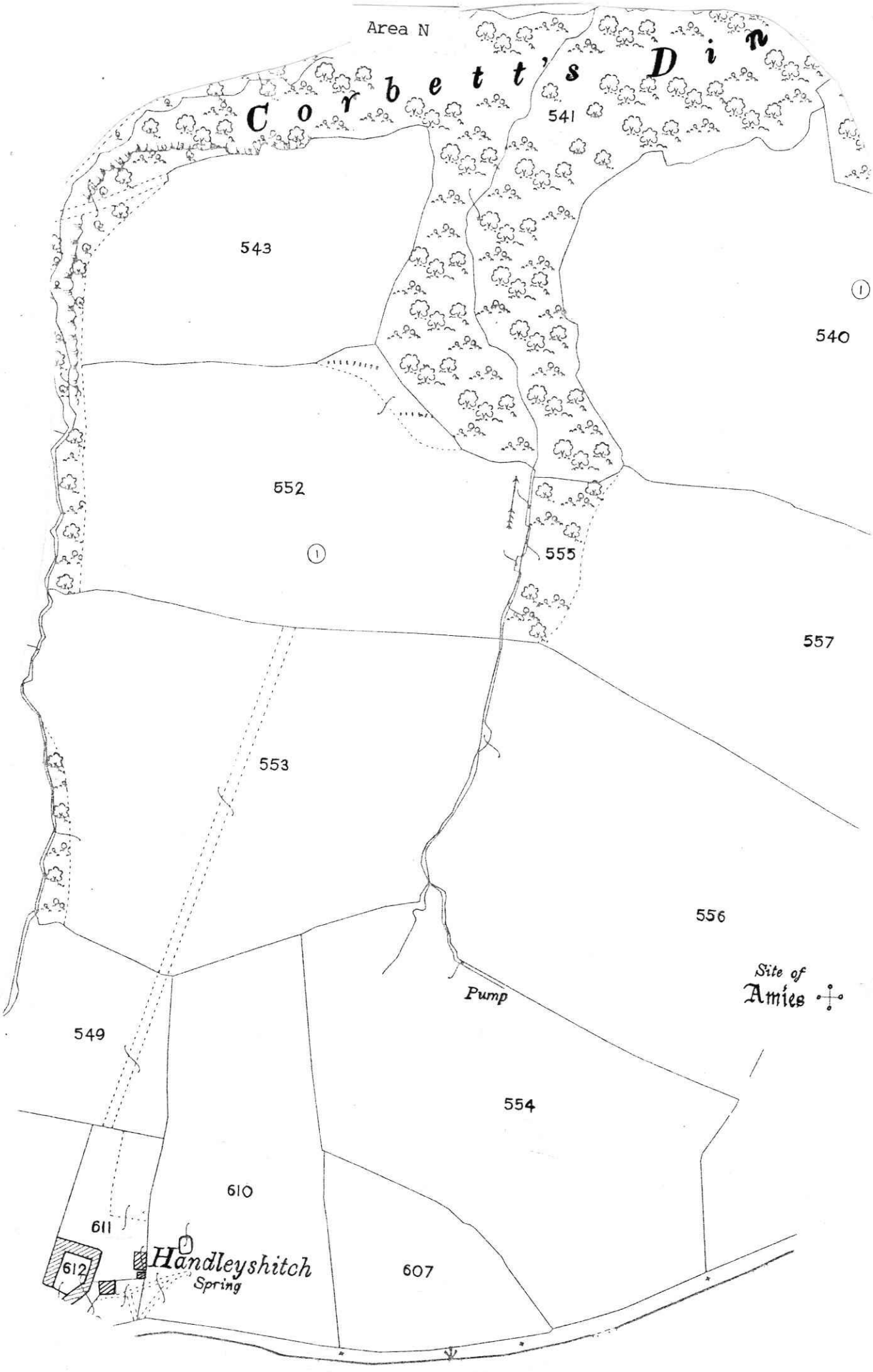

Area M
274
Deep Pit
(Clay)
Tank
Shaft
292
294
293
291
TRAMWAY
295
G.P.
297
298
Tank
P.
Broseley Tileries
W.M.
Old Shaft
(Clay)
290
P.H.
Old Pound
299
296
300
376
354
Iron-Bridge 2
Bridgnorth 6
Spring
355
Old Clay Pit
361
Old Shaft
(Clay)
TRAMWAY
F.P.
360
356
Brick & Tile Works
362
Old Shaft
The Dunge Colliery
(Disused)
Clay
Old Shaft
365
357
363
359
Level
Saw Pit
Old Shaft
Old Shaft
(Clay)
364
Shaft
Old Shaft
368
Old Shaft
367
375
374a
Old Shaft
(Coal)
Old Shaft
(Coal)
369
Clay Pit
Old Shaft
(Coal)
160


Area N
Corbett's Din
541
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Site of
Amies
Pump
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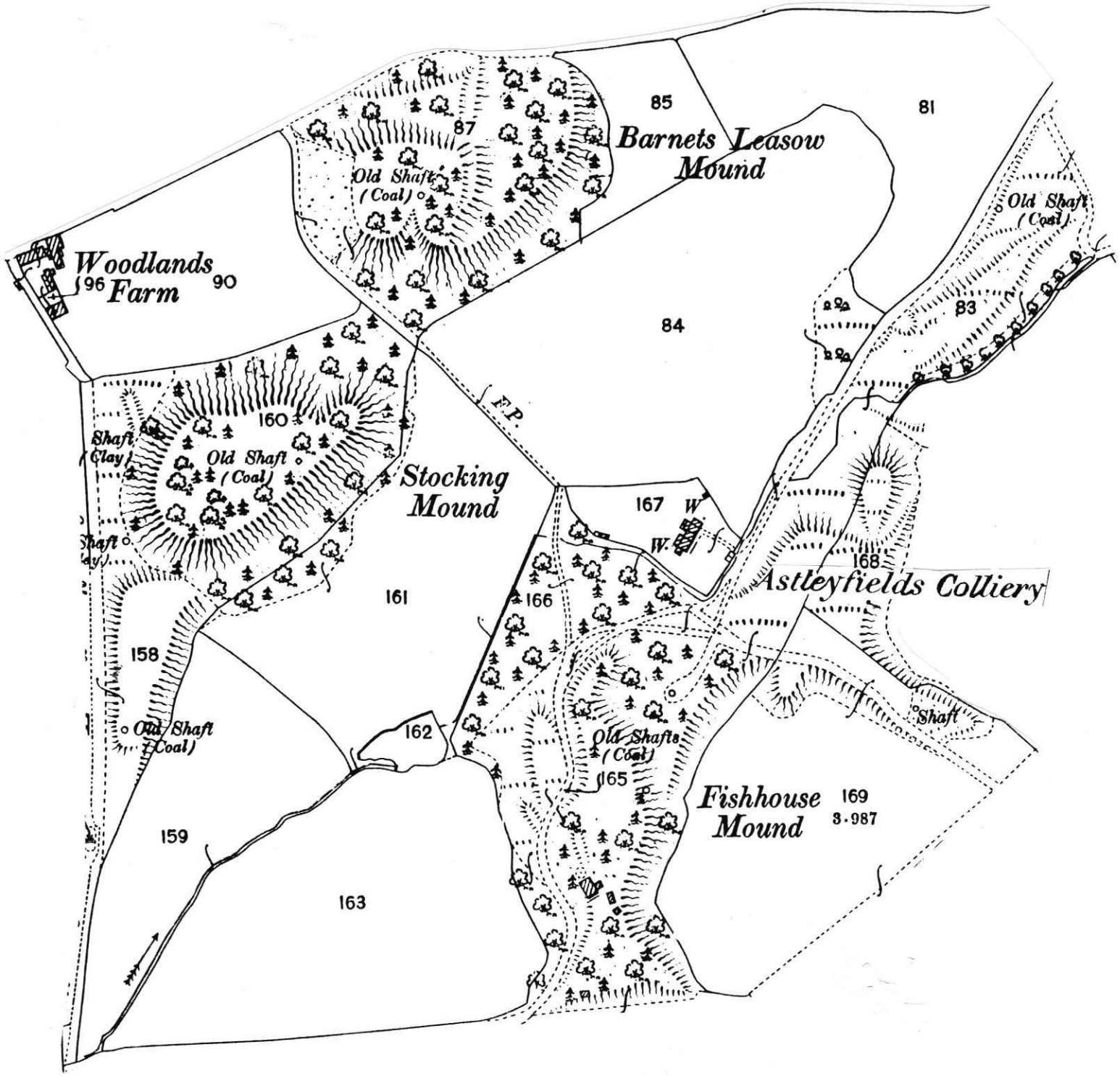
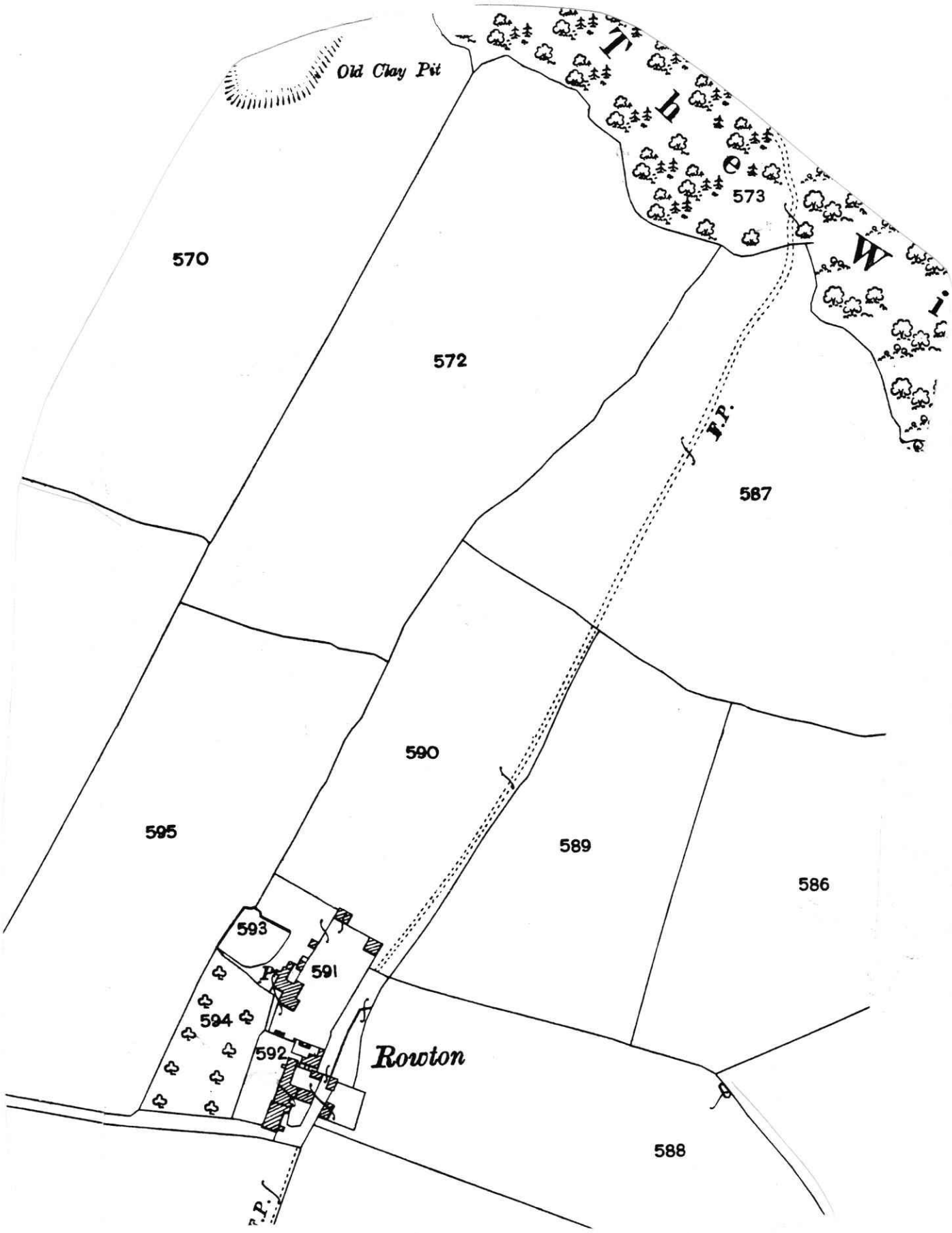
611
612
Handleyshitch
Spring
607


Woodlands Farm
96
90
87
Old Shaft (Coal)
85
Barnets Leasow Mound
81
Old Shaft (Coal)
83
84
F.P.
160
Shaft (Clay)
Old Shaft (Coal)
Stocking Mound
167
W.
W.
168
Astleyfields Colliery
161
166
158
Old Shaft (Coal)
162
Old Shafts (Coal)
165
Shaft
Fishhouse Mound
169
3·987
159
163


Old Clay Pit
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573
Wi
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F.P.
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592
Rowton
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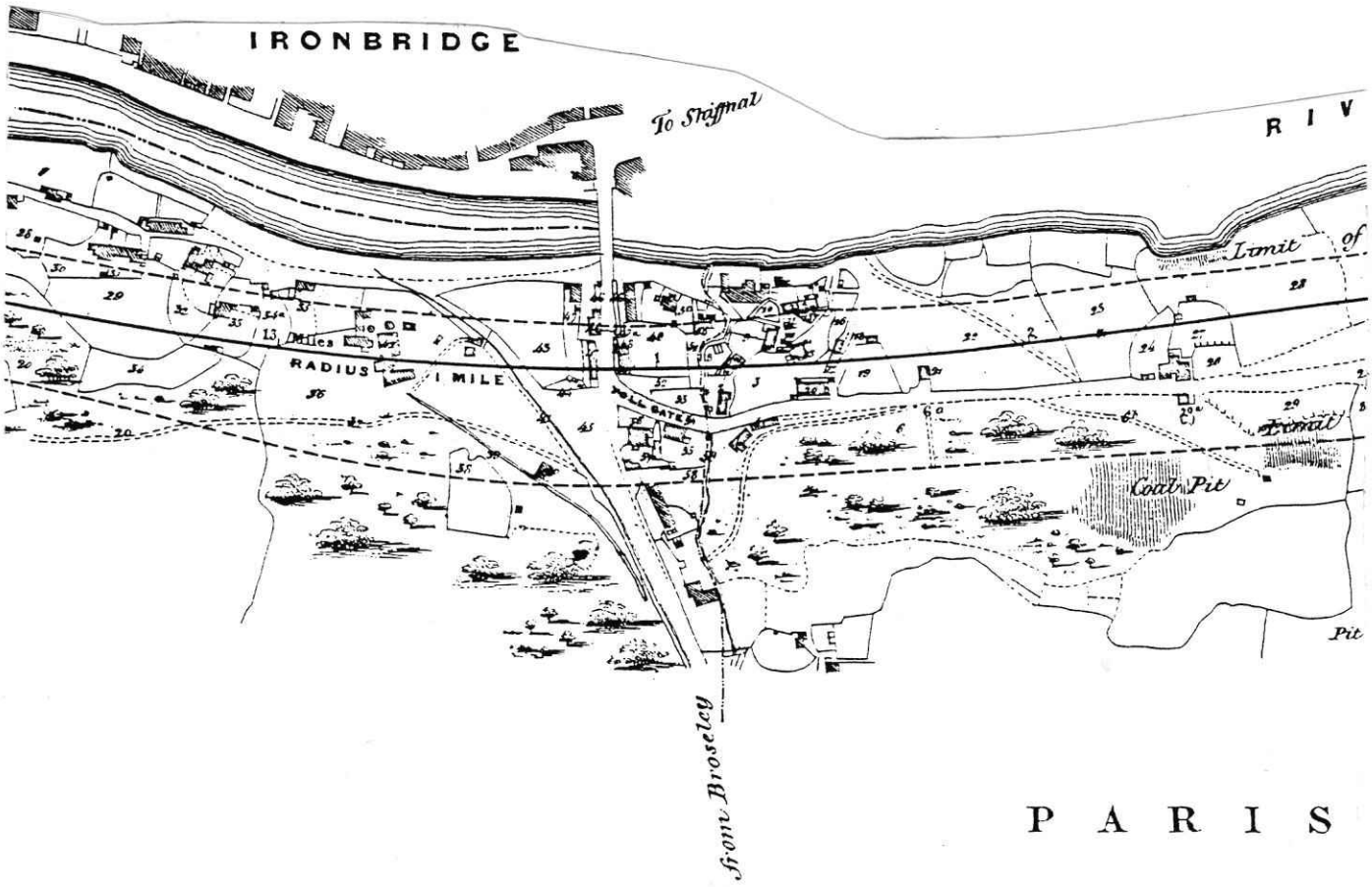
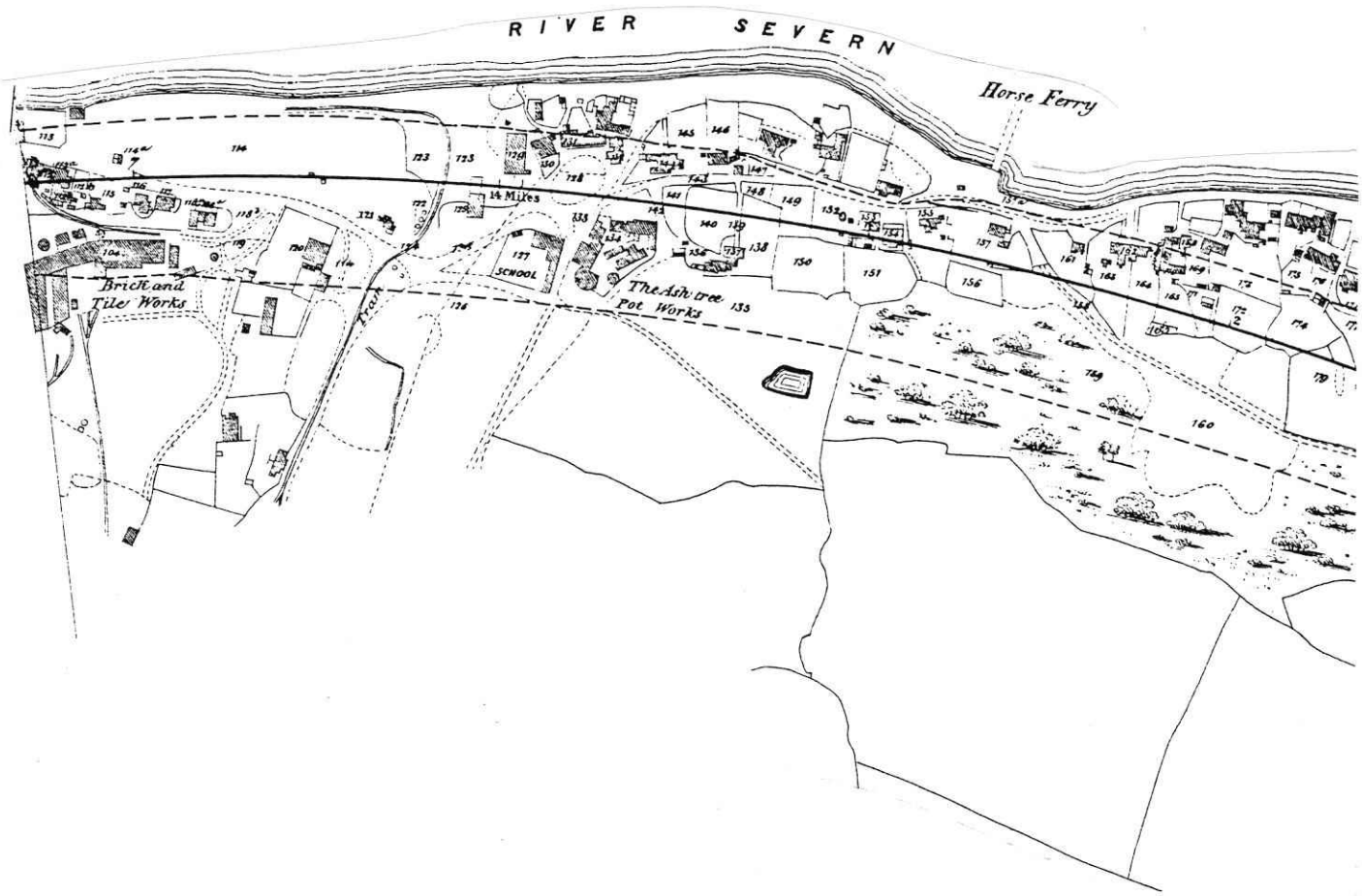
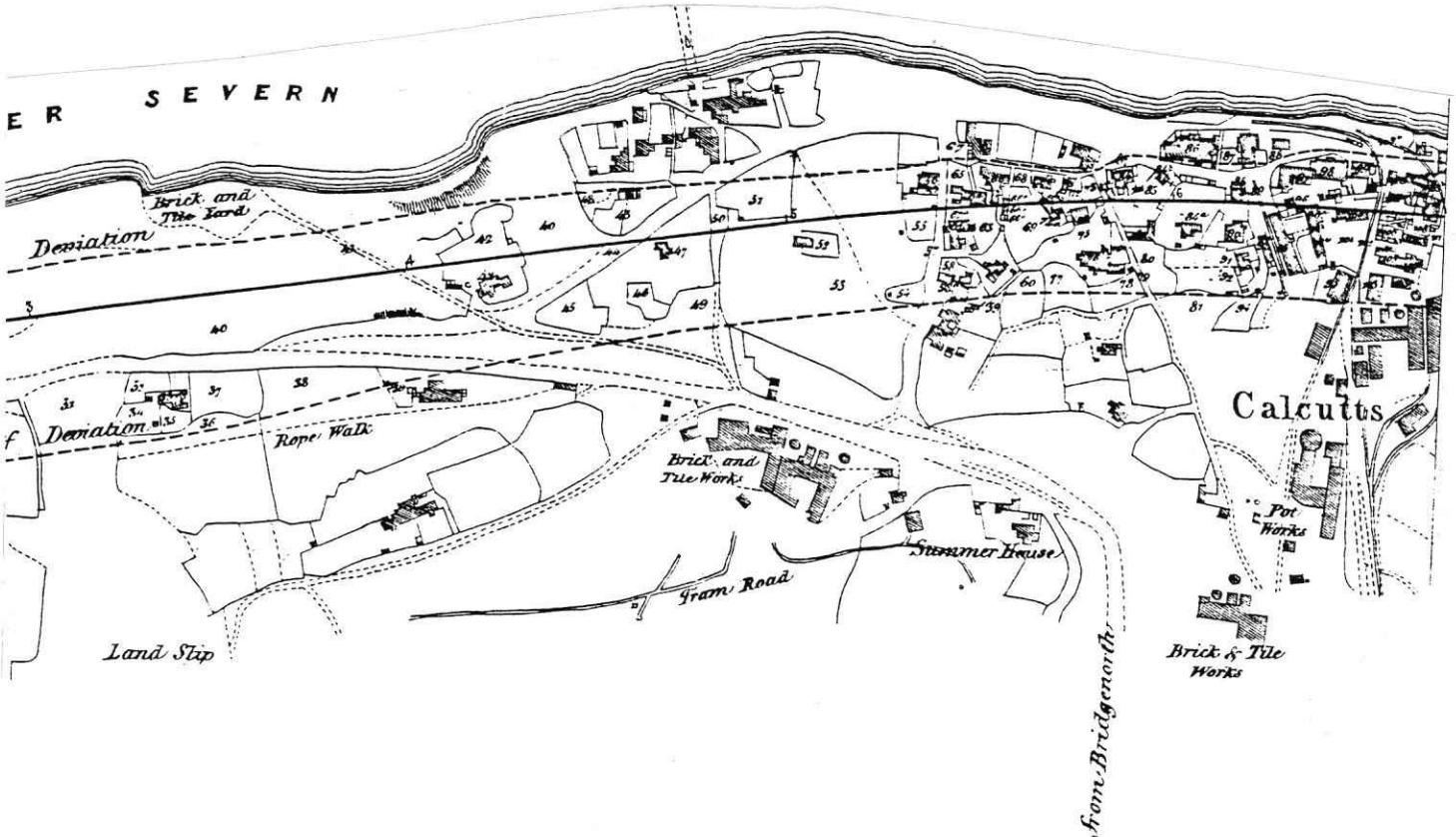
F.P.

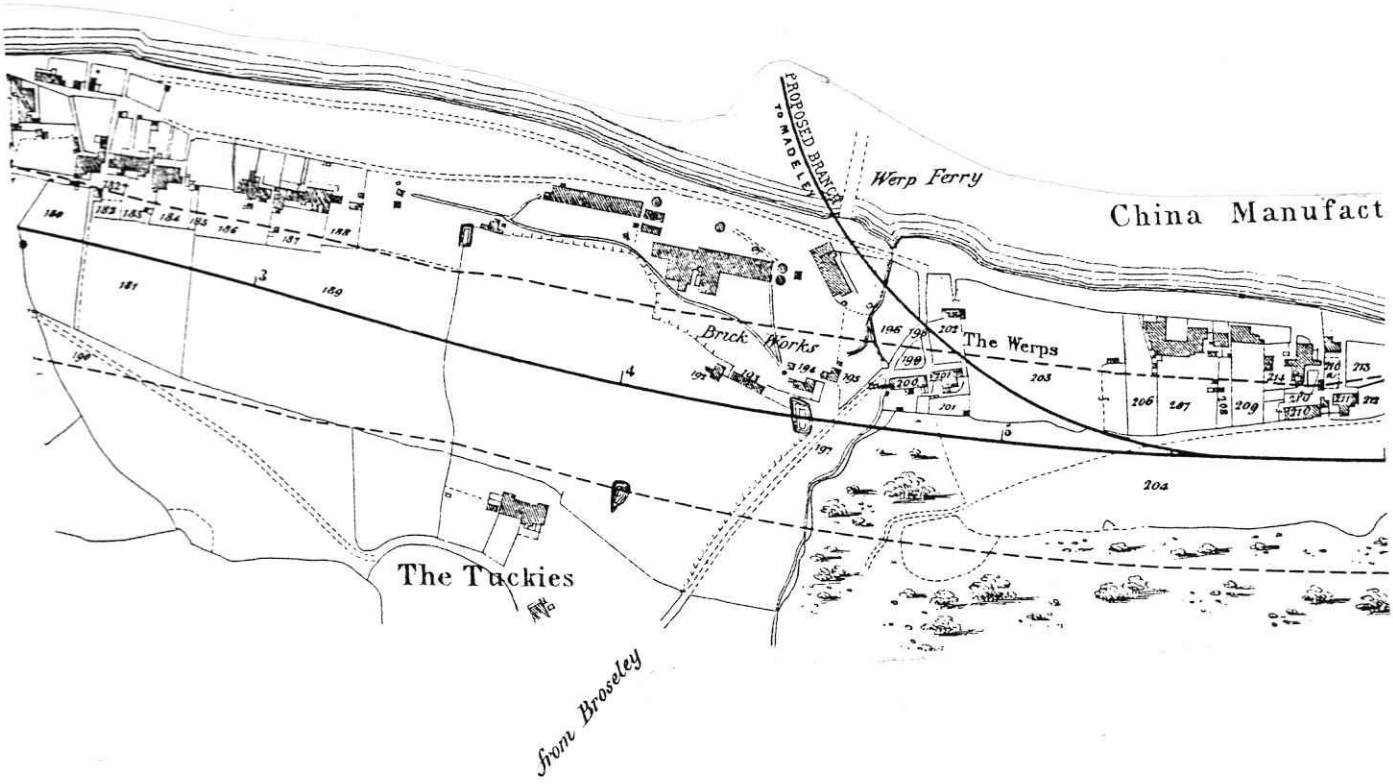
Maps of Jackfield Riverside Area, taken from Shropshire Union Railways. Plan & Section of Proposed Railway from Shrewsbury to Worcester. Nov. 1846. SRO Deposited Railway Plan.

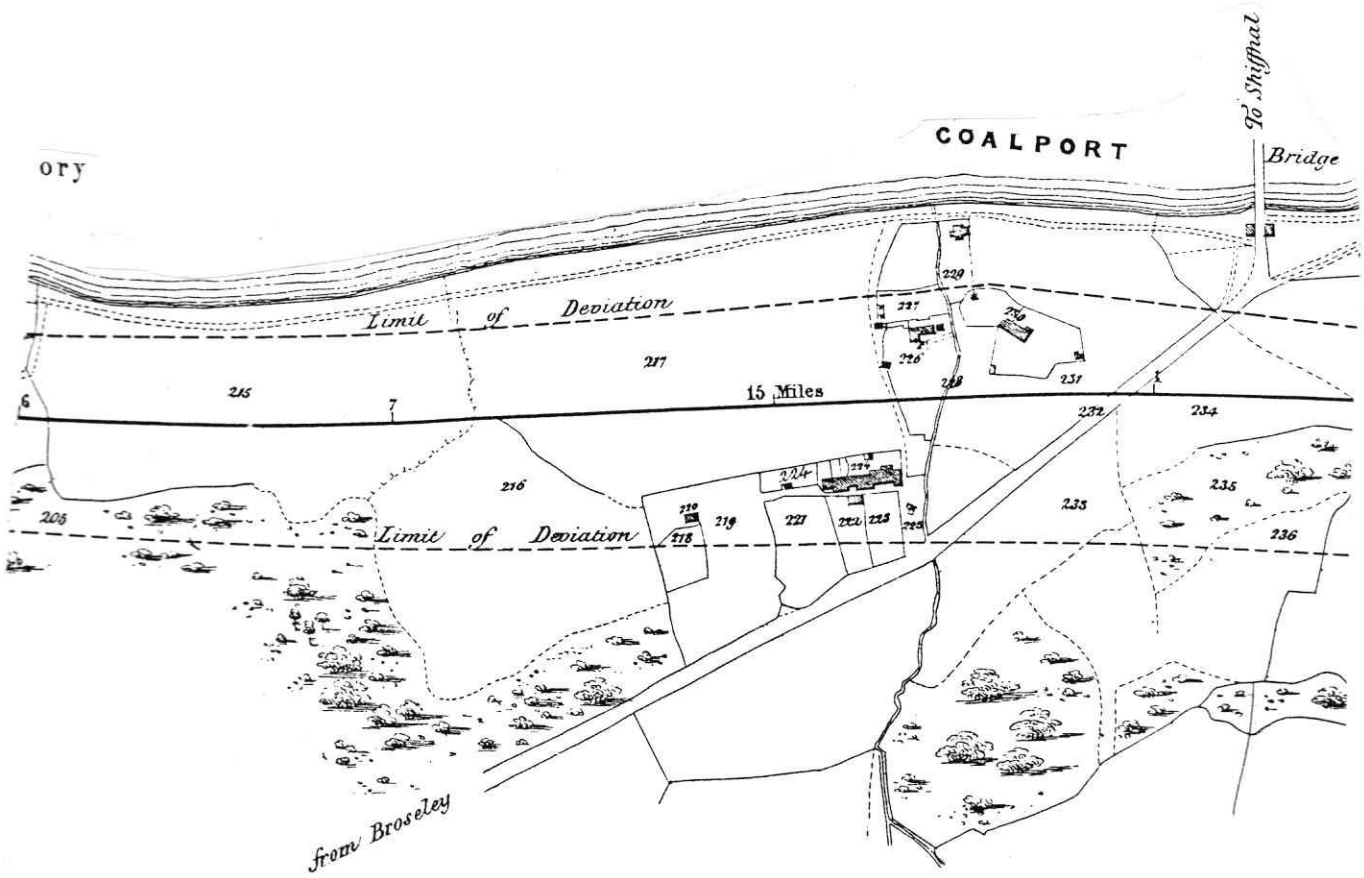



RIVER SEVERN
Horse Ferry
Brick and Tile Works
SCHOOL
The Ash tree Pot Works
¼ Miles


ER SEVERN
Brick and Tile Yard
Deviation
Deviation
Rope Walk
Brick and Tile Works
Summer House
Tram Road
Land Slip
Calcutts
Pot Works
Brick & Tile Works
from Bridgenorth

OF BROSELEY


PROPOSED BRANCH TO MADELEY
Werp Ferry
China Manufact
Brick Works
The Werps
The Tuckies
from Broseley


ory
COALPORT
To Shiffnal
Bridge
Limit of Deviation
Limit of Deviation
15 Miles
6
7
215
216
217
218
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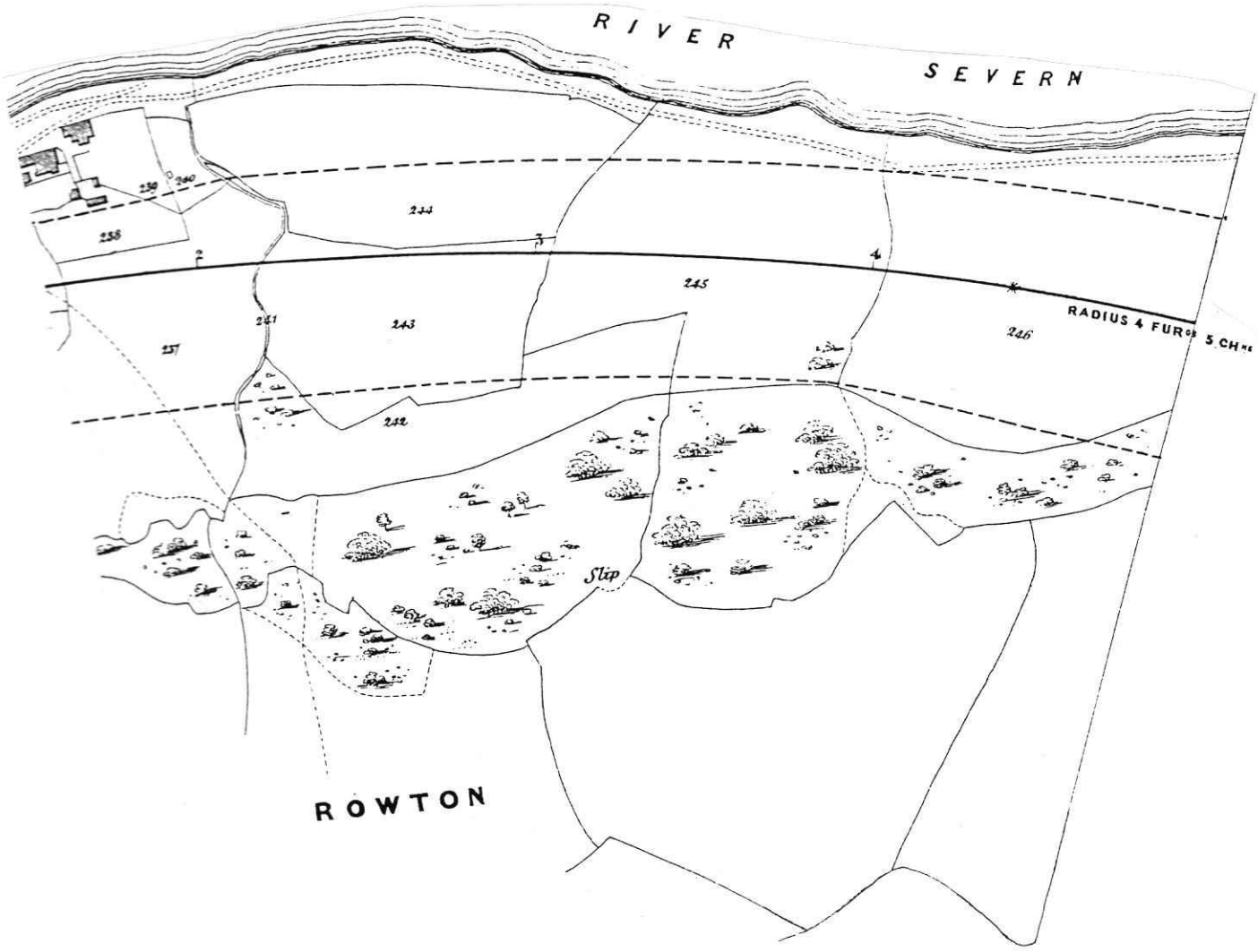
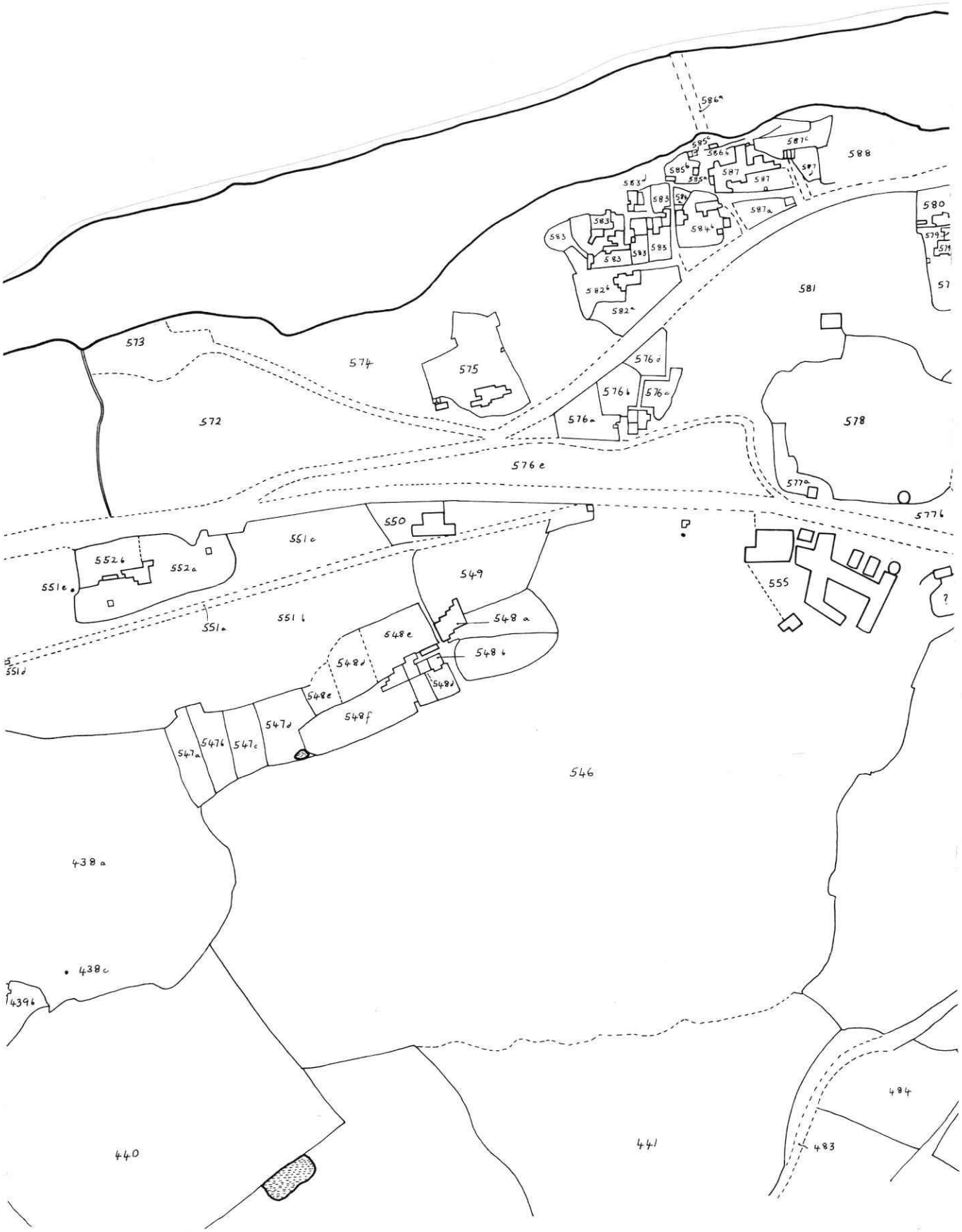
235
236
205
from Broseley


RIVER
SEVERN
239
240
244
238
245
241
243
257
246
RADIUS 4 FURS 5 CHS
242
Slip
ROWTON

Jackfield Riverside Area, traced from Broseley Tithe Apportionment Map, 1840. Numbers refer to Tithe Apportionment, held in IGMT library.


586a
588
580
581
573
574
575
572
576a
576b
576c
576d
576e
578
577a
577b
550
551a
551b
551c
551d
551e
552a
552b
549
548a
548b
548c
548d
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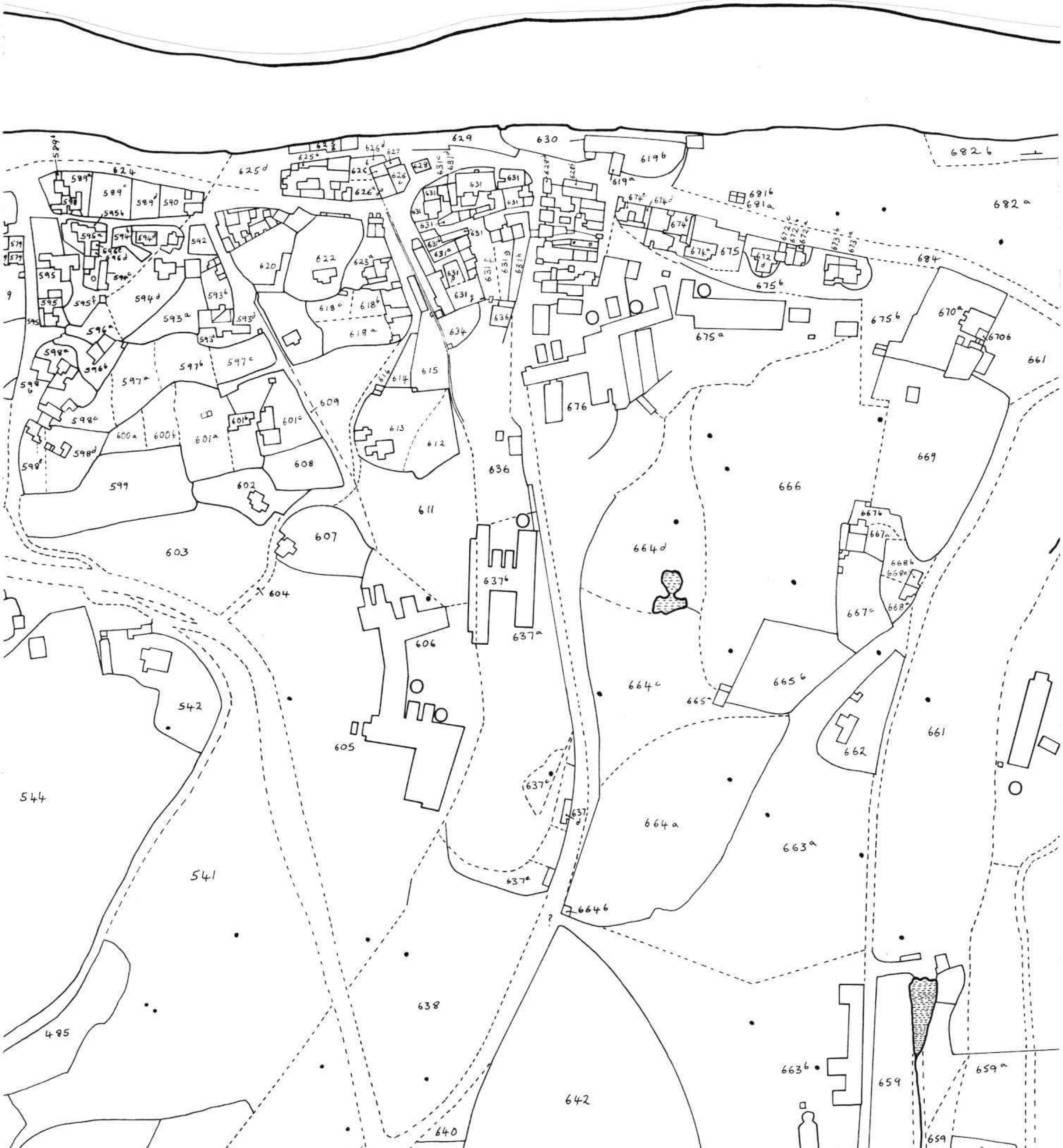
547b
547c
547d
546
555
438a
438b
439b
440
441
484
483


629
630
619b
682b
624
625d
589c
589d
590
592
620
622
681b
681a
682a
684
675
675b
675a
670a
670b
661
593a
593b
594d
597a
597b
597c
598c
598d
600a
600b
601a
601c
608
599
602
603
607
604
609
613
612
611
614
615
618a
618b
618c
634
636
637b
637a
606
605
676
666
664d
664c
665
665b
669
667c
662
661
664a
663a
6646
542
544
541
485
486
638
642
640
663b
659
659a


682c
682d
683a
685a
685b
686
687
689
690
692a
692b
692c
692d
688a
688b
688c
691a
691b
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700a
700b
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708
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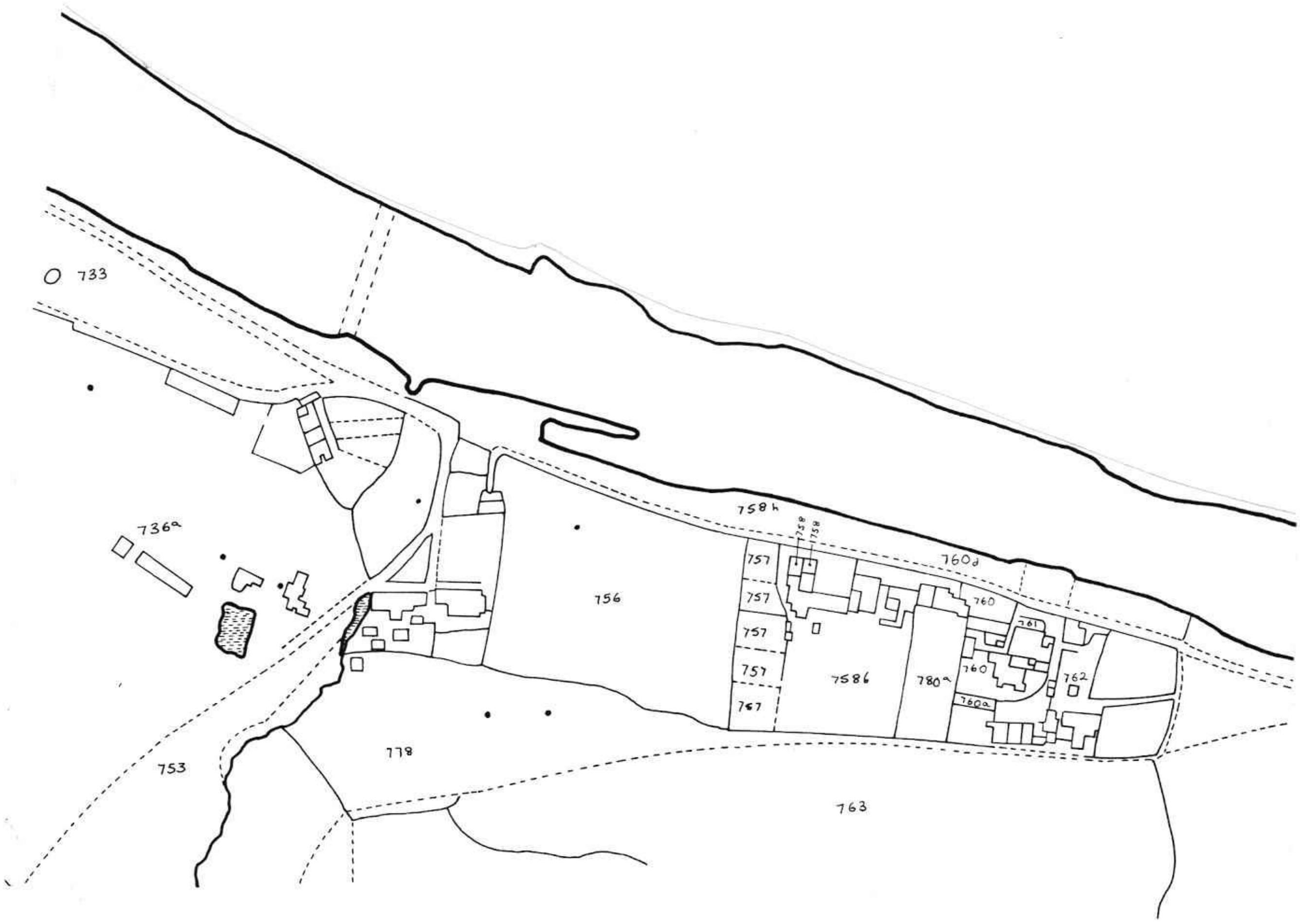
706
707
799
808
798
800


714
718
719
720
721a
721b
721c
721d
721e
739
738
737
732
731
729
728
730a
797
740
741
742a
742b
742c
742d
742e
796


733
736a
753
756
757
757
757
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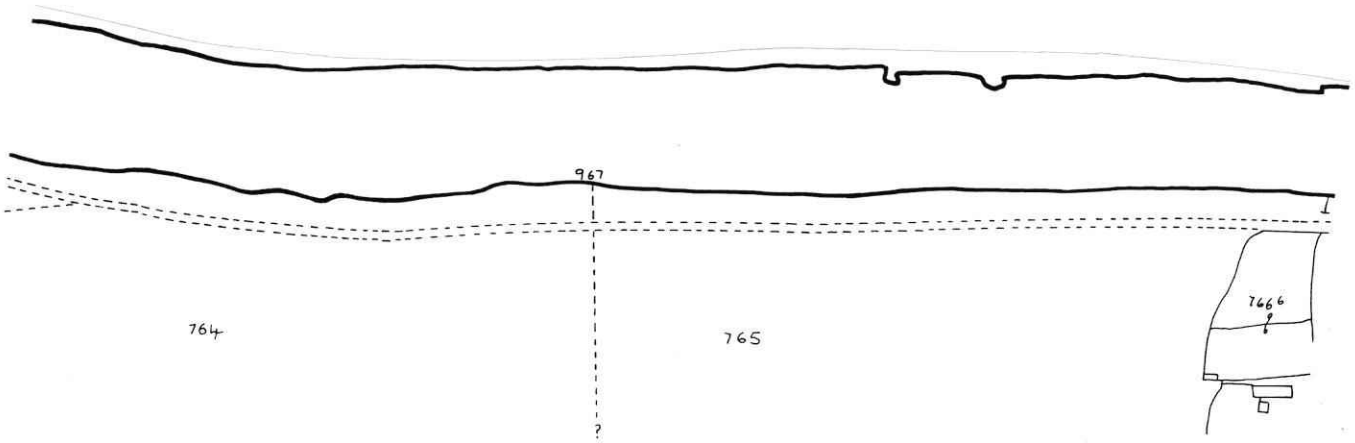
757
757
758h
758
758
758b
760d
760
761
760
762
780a
760a
778
763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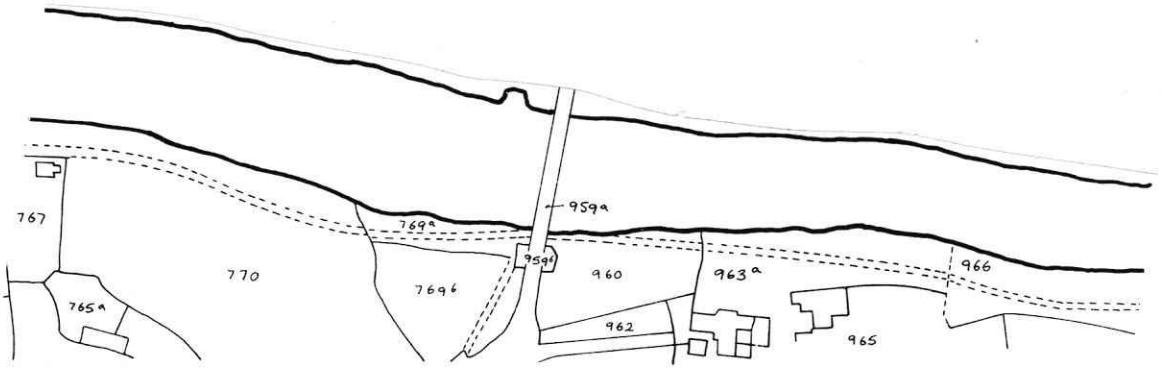
764
765
766
?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765a
770
769a
769b
959a
959b
960
963a
962
965
966

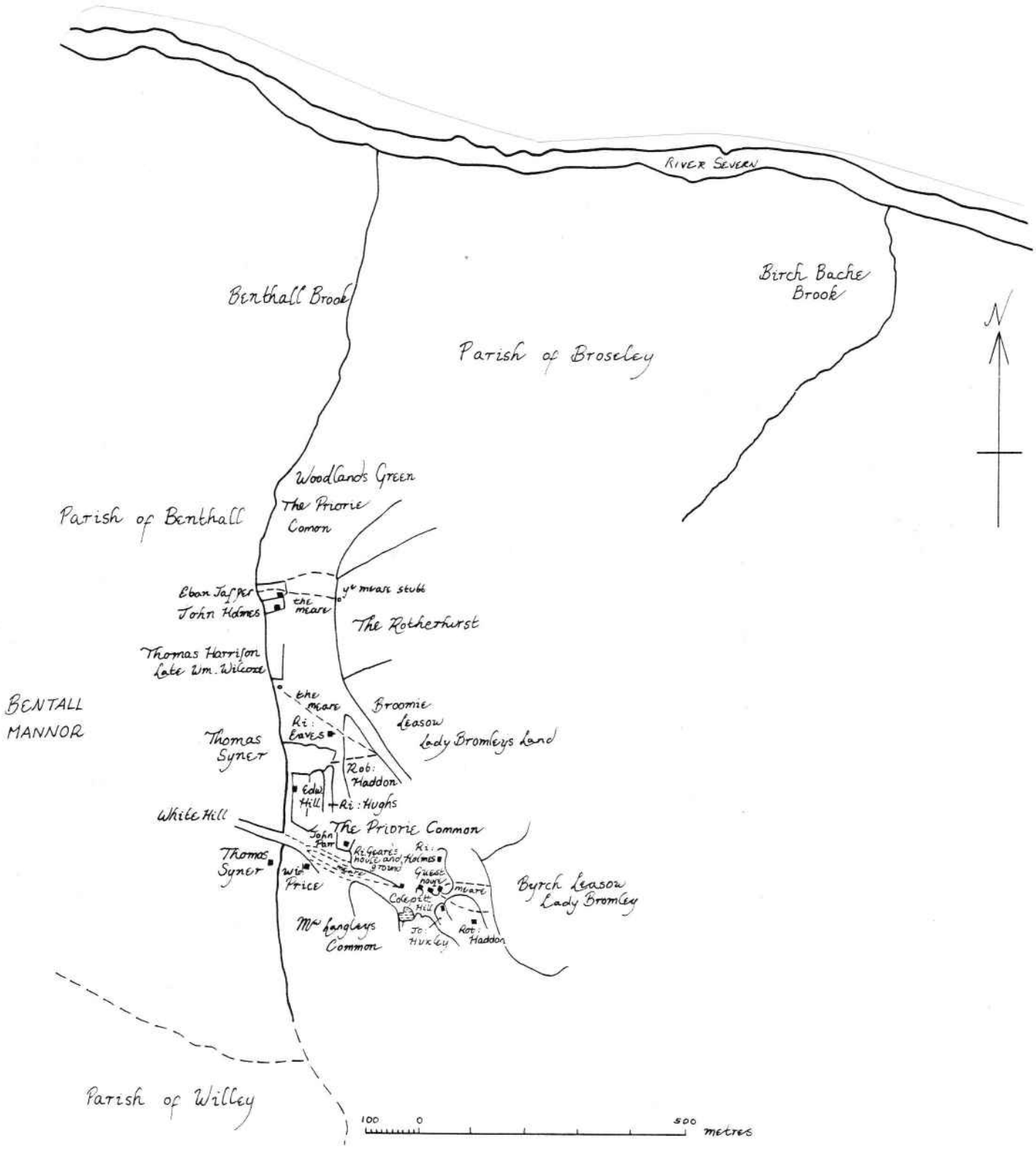

Figure 59: Plot of the Bounds of the common in Broseley. c. 1658. SRO 1224/1/21. Redrawn at 6"/mile showing other features.

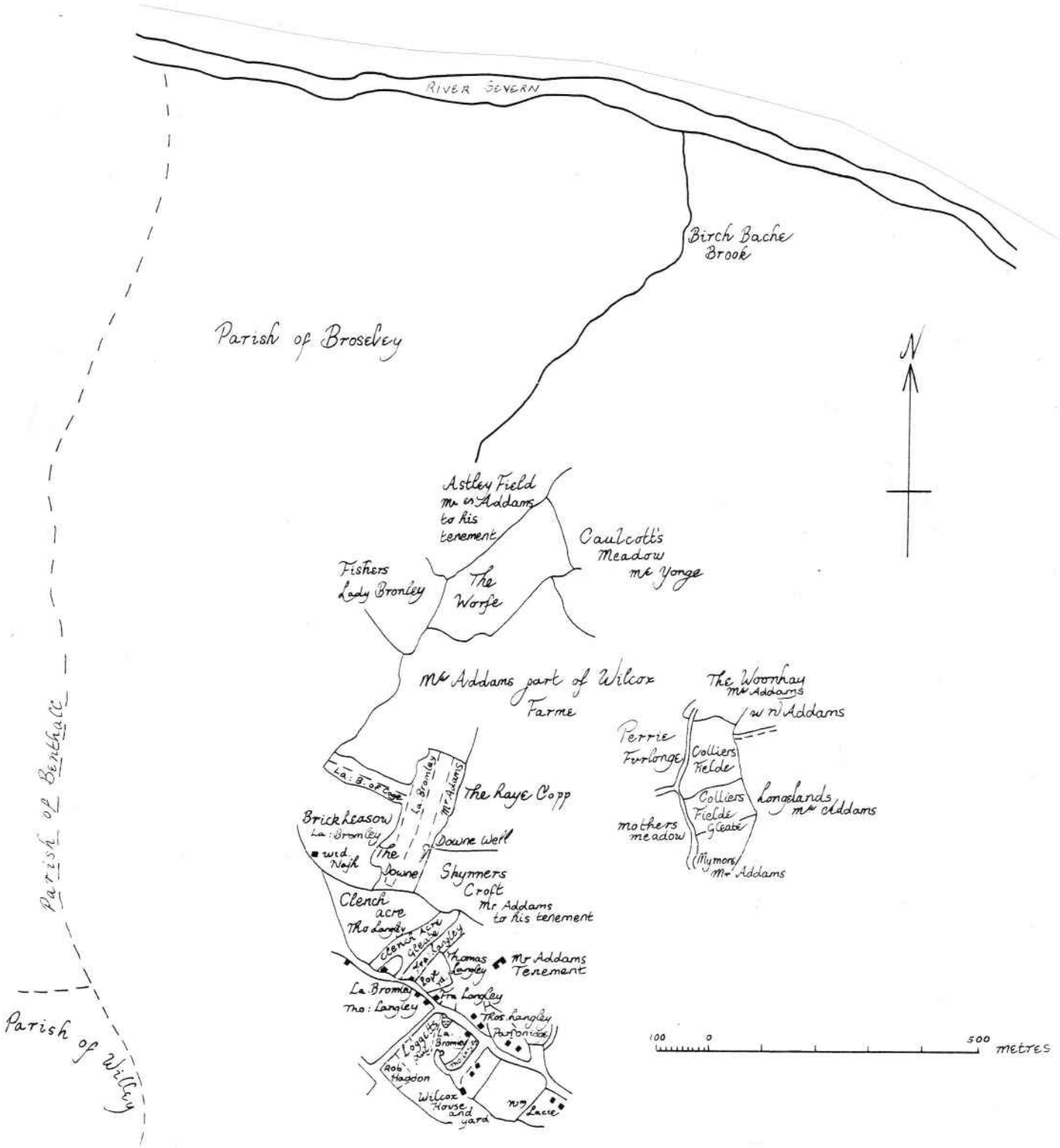

Figure 60: Map of Langleys Tenement c. 1658. SRO 1224/1/33. Redrawn at 6"/mile. See also Fig. 9.

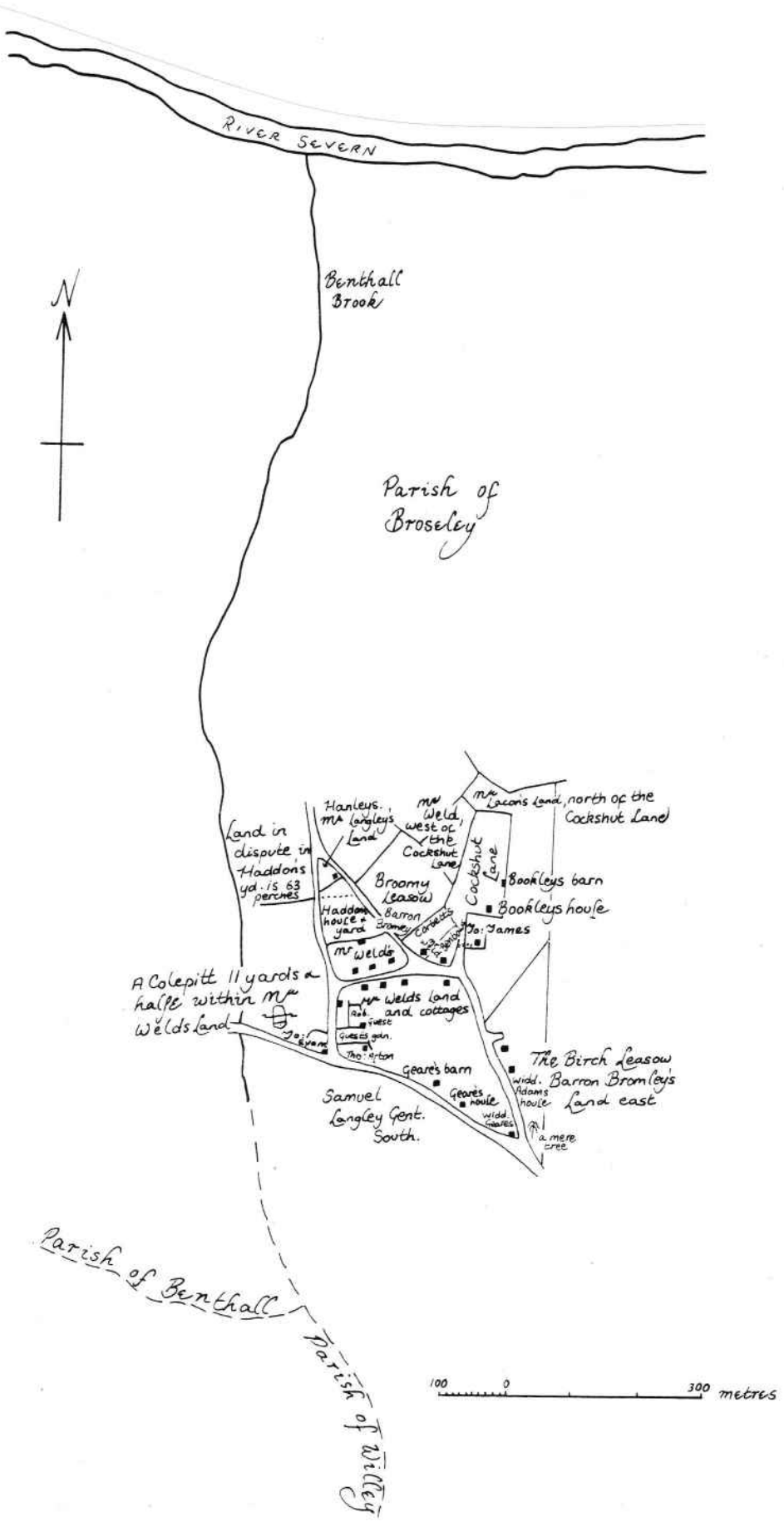

Figure 61: Lands Belonging to Weld. SRO 1224/1/34. Redrawn at 6"/mile. See also Fig. 13.

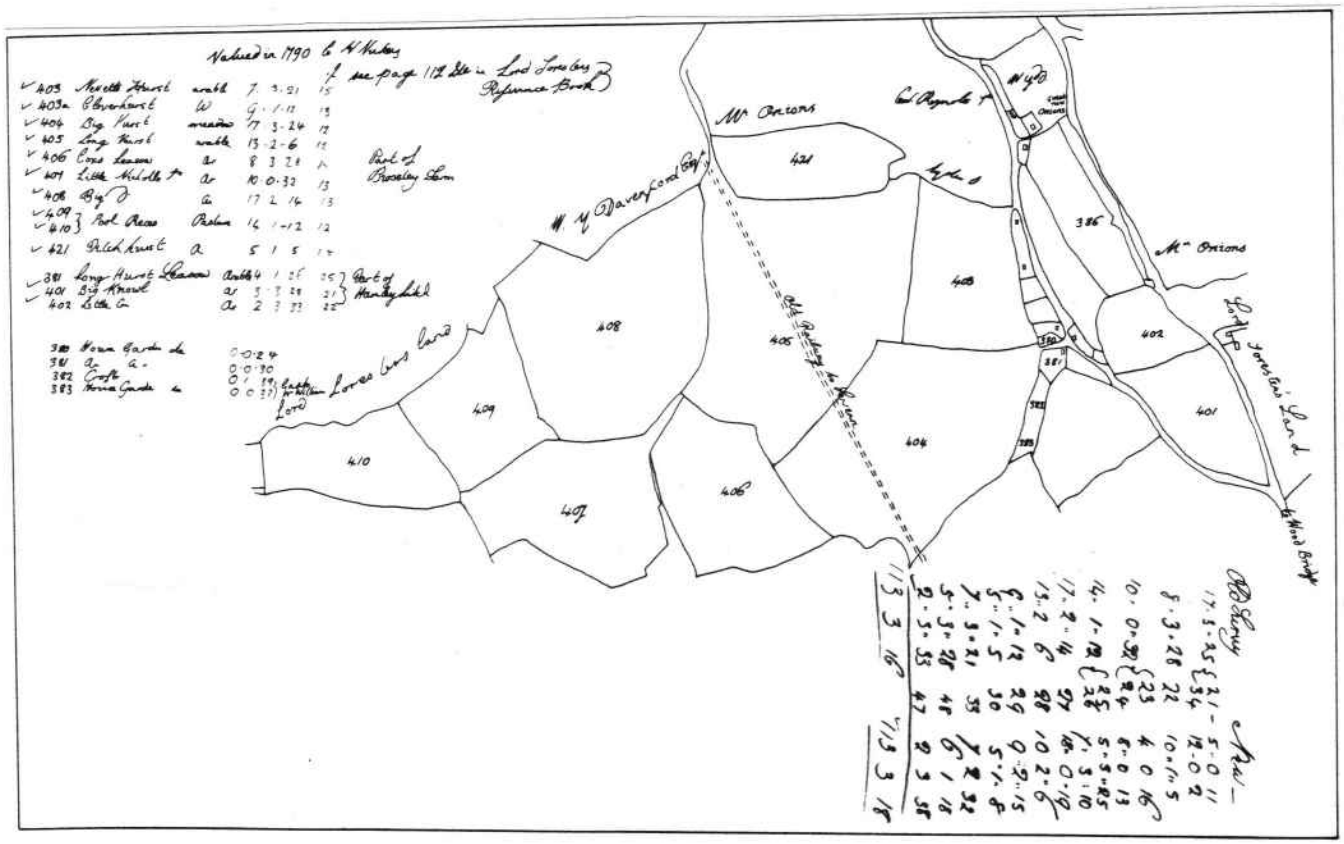

Figure 62. Sketch Map of the fields in Broseley. SRO 1224/1.

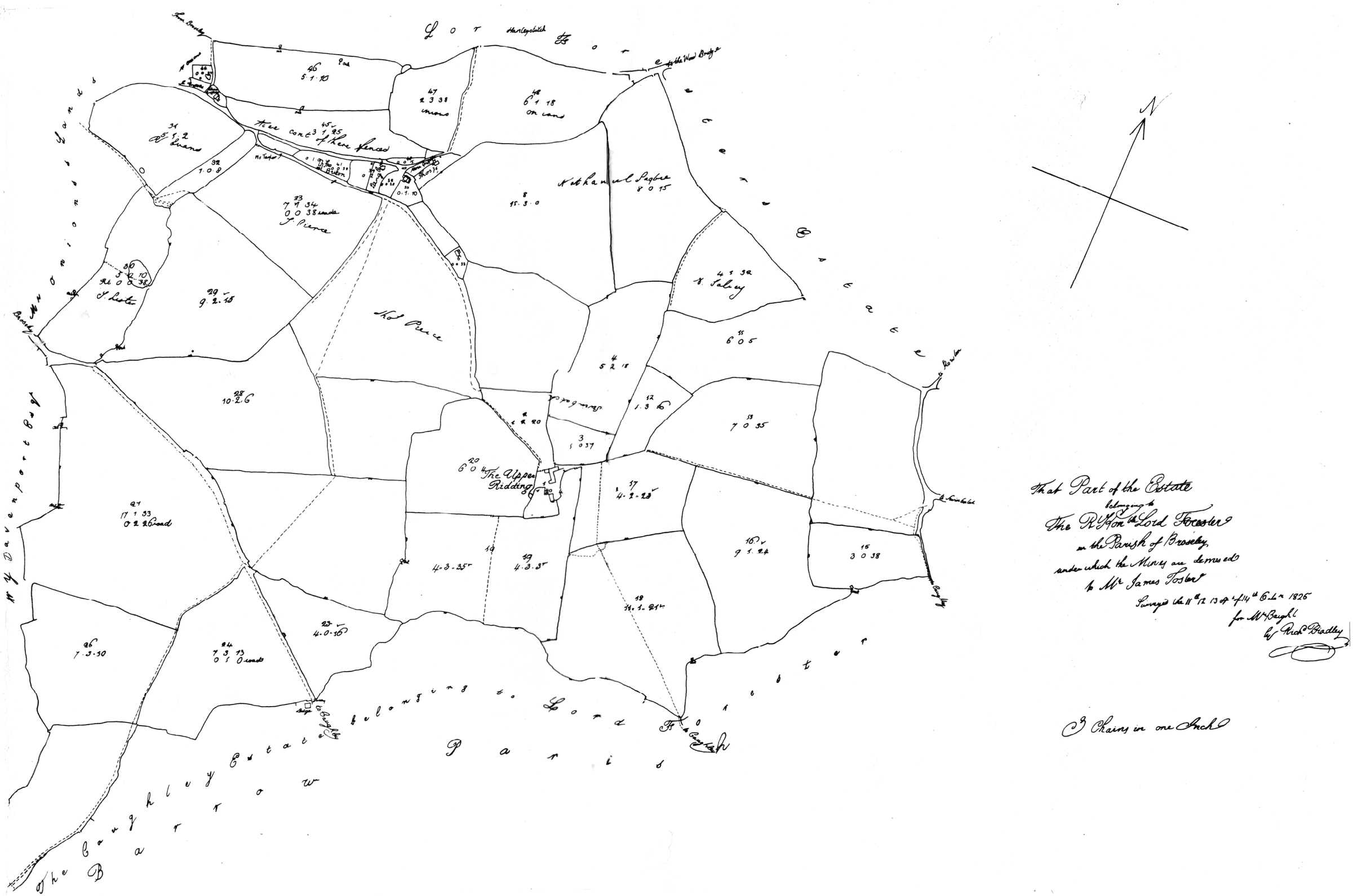

Figure 63: "That part of the Estate belonging to the Right Hon. Lord Forester under which the Mines are demised to Mr James Foster, Surveyed The 11th, 12 13 14th October 1825 for W.Baugh.. by Richd Bradley". (tracing of original). SRO 1224/1/45.

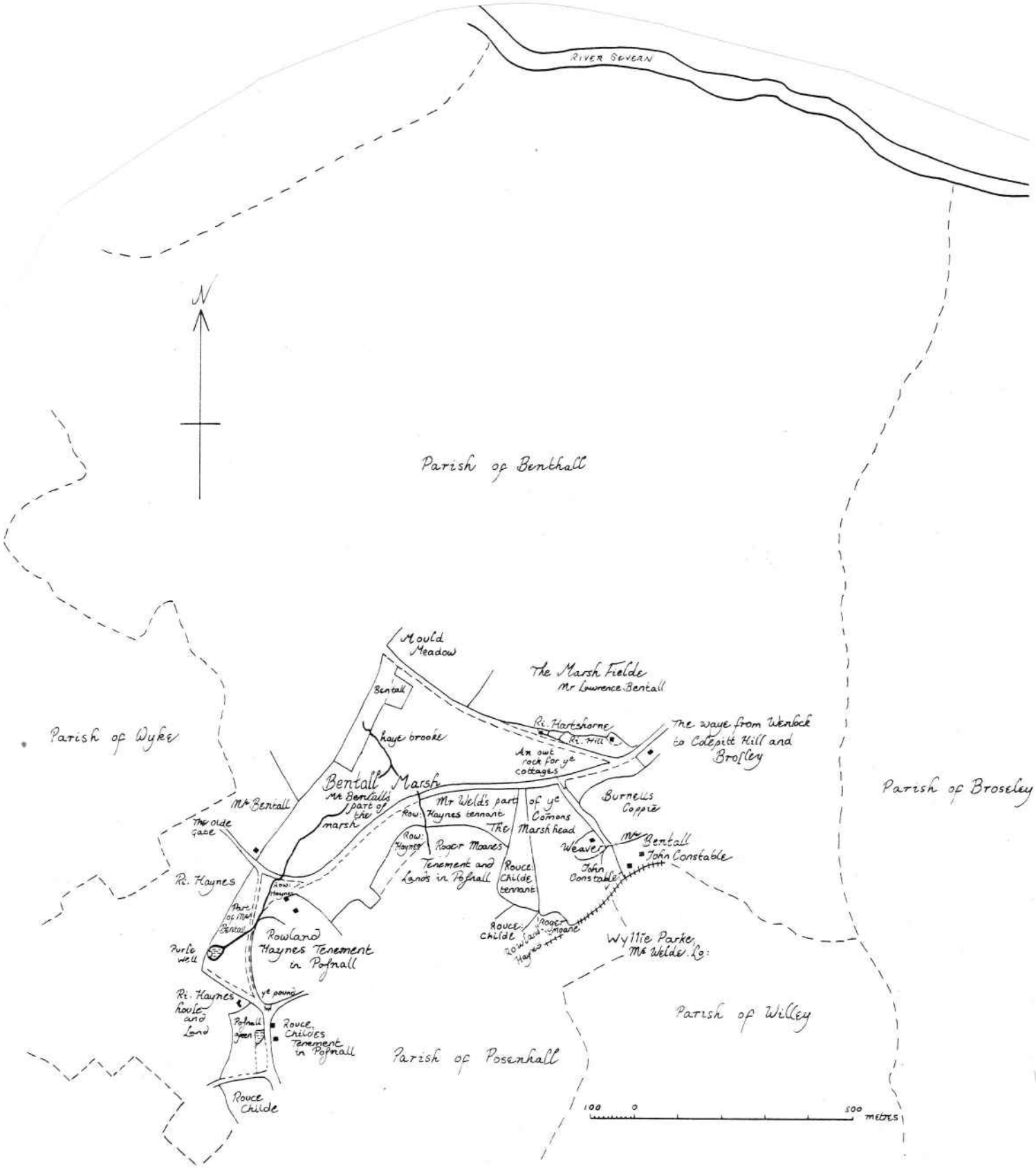

Figure 64: "Plot of certaine commons lying within ye Townshipps of Posnall, Bentall, Bradley & Wyke..." Samuel Parsons 1637. Redrawn at 6"/mile. SRO 1224/1/19.

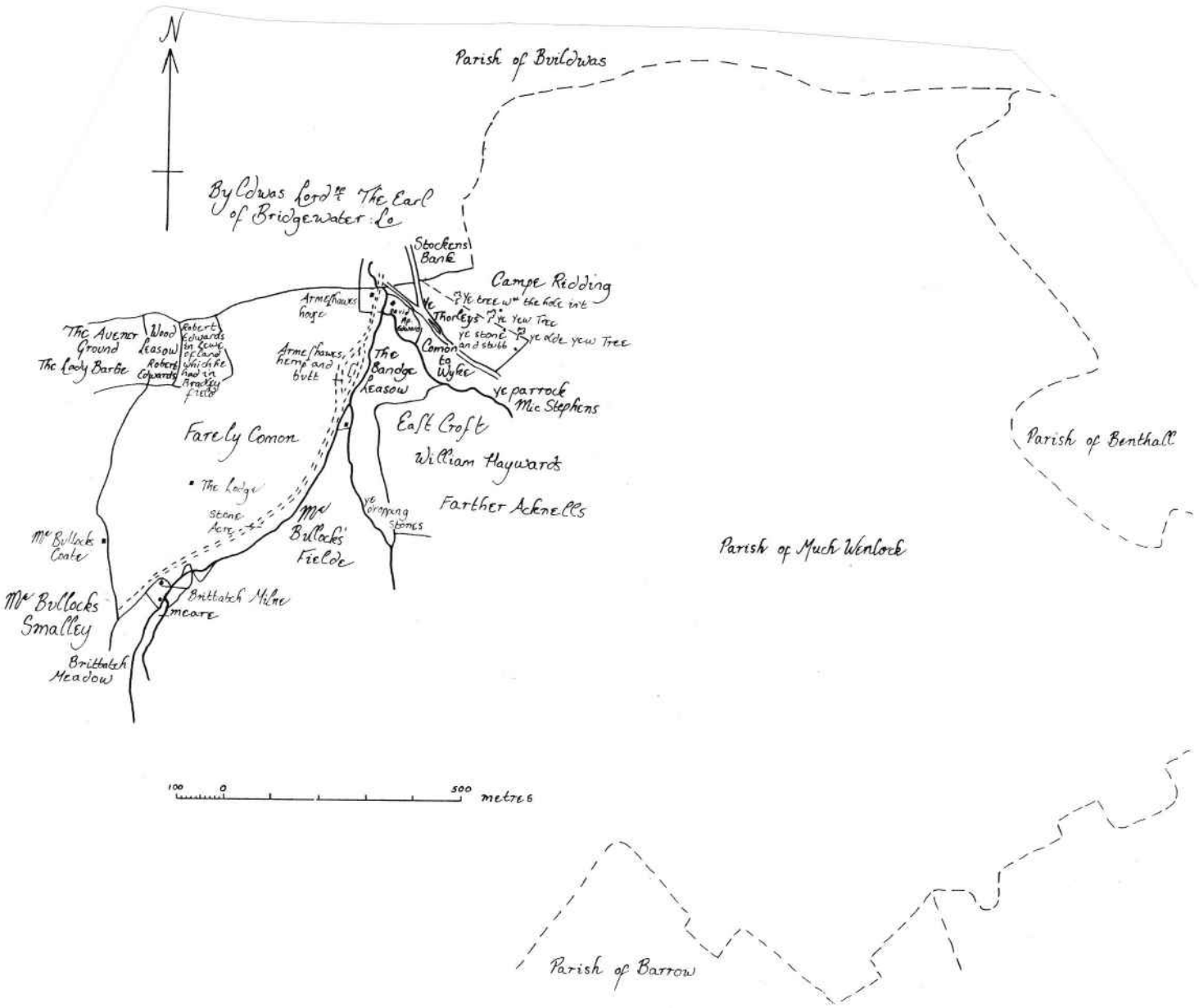

Figure 65: "Plot of certaine commons..." Samuel Parsons, 1637. Redrawn at 6"/mile. SRO 1224/1/19.

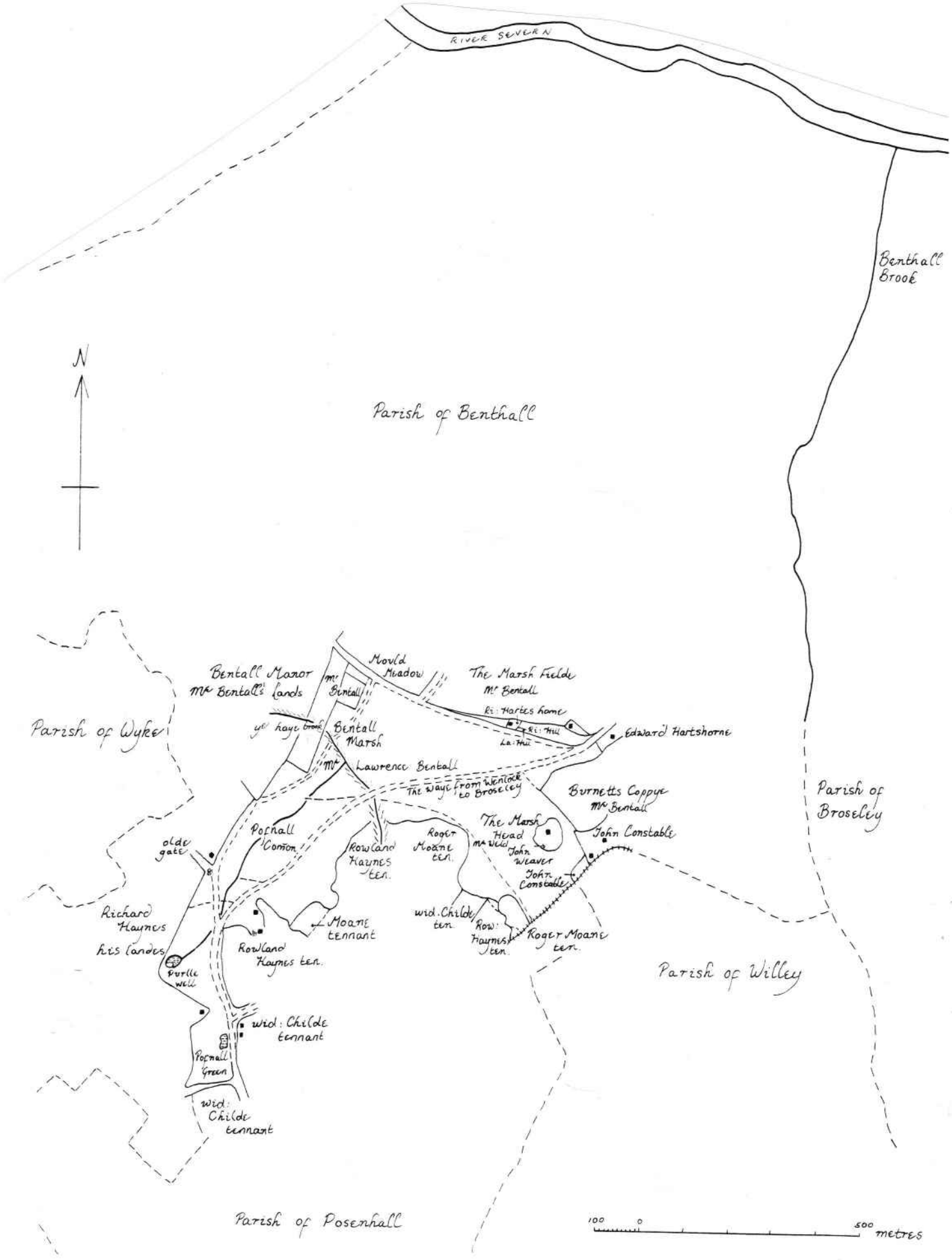

Figure 66: "Agreement between Mr Weld & Mr Benthall". 21st June, 1637. Redrawn at 6"/mile. SRO 1224.

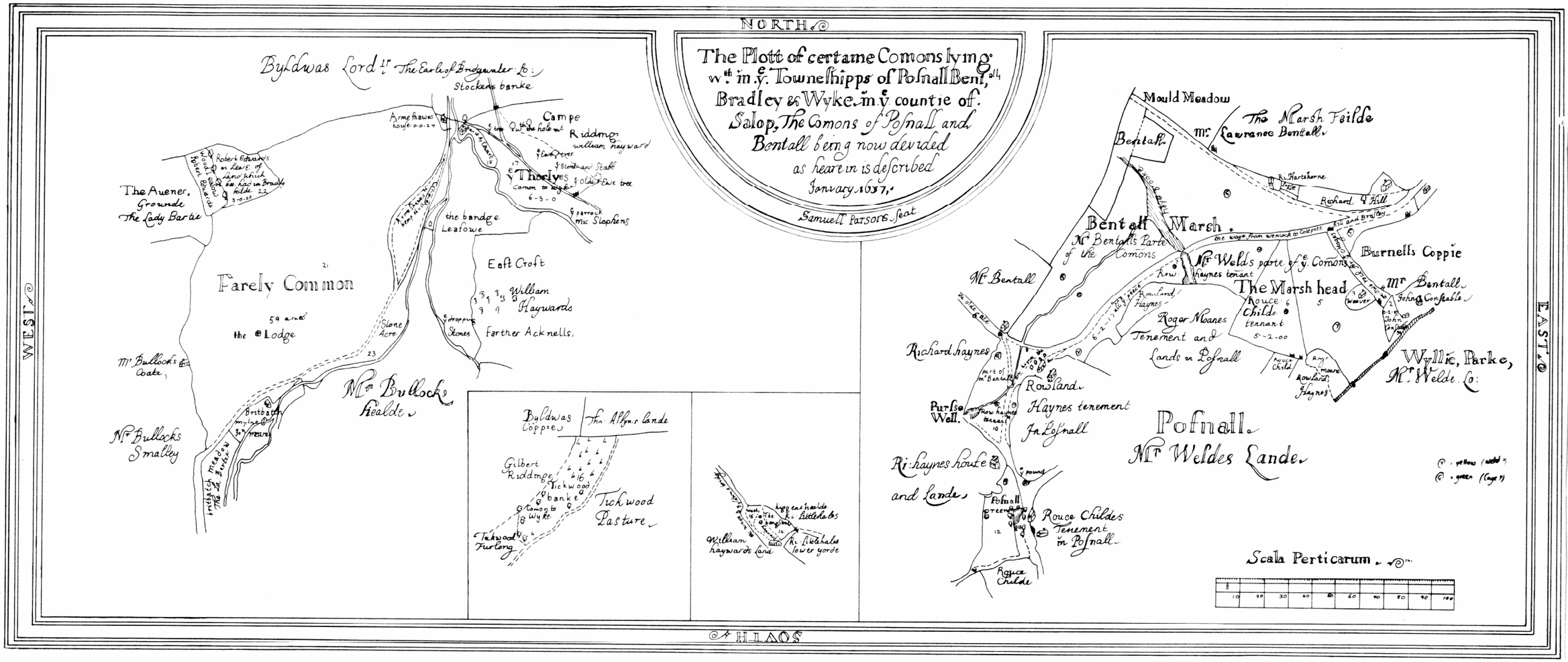

Figure 67: "Plot of certaine comons lying within ye townesshipps of Posnall Bentall Bradley & Wyke in ye countie of Salop, the Comons of Posnall and Bentall being now devided as hearin described, January 1637. Samuel Parsons" and "Agreement, 21 June 1637 between Mr Weld and Mr Bentall as to boundary". (traced from original). SRO 1224/1/19 and SRO 1224