

Victoria County History of Cumbria Project: Work in Progress

Interim Draft

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Parish/township: KIRKANDREWS ON ESK

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KIRKANDREWS ON ESK: ECONOMIC HISTORY

Overview

The economy of Kirkandrews on Esk is principally agrarian. Agriculture was the main employment of its inhabitants supplemented by artisanal skills such as tailoring and weaving, shoe and clog making, as well as masonry, carpentry, smithing, and milling. In the second half of the 19th century quarrying, railway construction and a peat extraction industry developed. During the 20th century some small businesses located in Kirkandrews Nether township, across the river from Longtown,¹ the adjacent market town.

Agricultural History

Early history:

From the late 13th century, Kirkandrews on Esk, part of the Barony of Liddel, was disrupted by plundering and murderous raids by Scottish armed bands and later by reivers from England and Scotland which resulted in their lands being worth very little.²

In the 16th century the dominant Grahams pursued a pastoral economy rearing cattle, sheep and horses which grazed on commons, marshes and mosses, with winter fodder provided by meadows and ley-farming. Oats, corn and barley were grown beside the river Esk. The rivers Sark and Esk were rich in salmon. Corn was ground at water mills on the Sark, on the Liddel and at Carwinley and there was an alehouse at Sandilands.³ Enclosures were authorised by the Privy Council from 1547 to strengthen English hold on the area.⁴ Part of the Graham's tenure of the

¹ Longtown is in Arthuret parish immediately across the River Esk from Nether Township

² Denton, *Perambulation*, p.386.

³ R.T. Spence, 'The Graham clans on the eve of the Jacobean pacification', *CW2*, lxxx (1980), pp. 83-4.

⁴ Acts of the Privy Council, APC, 1547-1550, p. 478.

debatable land was on condition that they enclosed their most fertile land with hedges and ditches. Evidence of these enclosures has been found.⁵ Many of these enclosures were some distance from the residence of the chief Graham occupier and possibly indicate the importance of rich grazing on the salt marshes.⁶ The name Moat Common suggests that this area was originally common land, but no enclosure awards have been found for land in Kirkandrews on Esk.

Marsh land includes Solway Moss with Mossband Moss which accounted for a fifth of the debatable lands. Beck Moor was a large tract of moor and mossy ground between Solway Moss and Scotsdike and was common land of varying quality. Rowland Marsh at the Solway Firth end of the debatable land was another stretch of marshland used by the Grahams as summer shielings.⁷

Away from the marsh, there were sizeable enclosures along the lower terraces of the river Esk such as Sandbeds and Sandilands, and further north at Meadop, Batenbush, Kirkandrews and Millees.⁸ These small enclosures probably produced essential additions to the late medieval economy – wood – willow and broom for building and tools, basketry, wattle and thatching. The land above the river flood plain was freed for arable and pasture.

17th century

A survey in 1604⁹ gives the total acreage of arable and meadow land for the five largest tenements in the debatable lands between the Sark and Esk. Discounting the cottagers, the average cultivatable land was less than four acres per head.¹⁰ Farming techniques may at this time still have been similar to medieval times and the yearly crop may have been sufficient for

⁵ J.R. Cole, 'A survey of the debatable land and Glenn Tarras c 1449 to 1620', thesis submitted to Manchester University 1982, pp 49-51; L. & P. Hen. VIII, vol. 18, part 1, p. 444. 1543. "The Grahams must fully observe the making of dykes"; The Netherby Trew Plat of 1607

⁶ Cole, 'Debatable land', p. 50.

⁷ Spence, 'Graham clans', p 82.

⁸ Spence, 'Graham clans', p. 82.

⁹ R.P. Sanderson, ed. *Survey of the debatable and border lands 1604*, Alnwick, 1891. Quoted in G.P. Jones, 'King James I and the western border', *CW2*, lxix (1969), pp 129-151. In 1604 James I ordered a survey of the western borders which assessed amongst other things the value of lands, quarries, mines and other resources.

¹⁰ Jones, 'Western Border', pp. 131-2. These were "Rose Trees" 165 acres, "Bating Bush" 115, "Gards" 85, "Medopp" 72 and "Bank Head" 63 acres. 1064 people including 751 cottagers were dependent on a total of 34 tenants in this area.

between 20 to 33 families.¹¹ Scarcity of cultivatable land together with overpopulation is put forward as one of the reasons for the frequent robberies or reiving on the border.¹²

Although land values in the area increased when life became more peaceful after the Cliffords were granted Kirkandrews in 1603 and 1610 and Sir Richard Graham purchased the barony in 1628¹³, the area continued to be in a comparatively poor condition.¹⁴

Improvement

It was thought that only a complete change in the economy of the area could transform the traditional backward existence of the border people, and this did not happen until Dr Robert Graham inherited the manors of Kirkandrews on Esk and Arthuret in 1757.¹⁵ It was claimed that his reforms resulted in conditions in the parish of Kirkandrews (and Arthuret) flourishing in the 1790s. More than 5000 acres of wasteland were converted into pastures and cornfields. As farms became vacant, houses were rebuilt more substantially, fields fenced, the land was improved by draining and manuring 1,000 acres at a time for tillage, grass or meadow land, and hamlets of about 8 or 10 new farm houses and out-buildings were built. These were allocated to more industrious tenants, often rent free for a year or so.¹⁶ Rents were then gradually raised. Dr. Graham's improvements also included the erection of more corn mills, better roads, plantations, a small harbour at Sarkfoot, a bridge built over the River Esk at Longtown and enhancements to the market town. The rent roll of the estate was more than quadrupled and the number of inhabitants augmented by more than a third.¹⁷ There were a total of 72 tenants in Kirkandrews in 1780.¹⁸ Annual rent receipts barely worth £2,000 when Dr. Robert Graham inherited the estate in 1757 had risen to £13,000 when he died 25 years later. Limestone quarries and coal mines to fuel the kilns were established by Dr Graham, but these were in Nicholforest and Bewcastle rather than in Kirkandrews on Esk.

¹¹ Jones, 'Western Border', p. 133.

¹² D. L. Tough, *The last years Of a Frontier: a history of the borders during the reign of Elizabeth*, Oxford, 1928, p.173; Spence, 'Graham clans', p. 83, & 86.

¹³ R.T.Spence, 'The Pacification of Cumberland borders,1593-1628', *Northern History*, 13 (1977), p. 135; Denton, *Perambulation*, p.386.

¹⁴ William Stukeley, *Iter Boreale*, published posthumously in *Itinerarium Curiosum*, 2nd.ed., 1776, ii, 17-77, pp 57-58; Stukeley commented during his tour of North England in 1725 about the valley of the River Esk "this valley by the riverside is very good land, with some shadow of Nature's beautiful face left; but everywhere else ... is the most melancholy dreary view I ever beheld ... here and there a castellate house by the river, wither at night the cattle are all driven for security from the borderers: as for the houses of the cottagers, they are mean beyond imagination; made of mud, and thatched with turf, without windows, only one story; the people almost naked."

¹⁵ Spence, 'Pacification', p. 153

¹⁶ 'Pleasing improvement in the North; particularly at Netherby', *Gentleman's Magazine*, Nov. 1785, p. 844.

¹⁷ Hutchinson, vol.2, pp 555-7.

¹⁸ CRO (Carlisle), QRP/1/14. 1780. Land tax assessment, Eskdale Ward. 33 tenants lived in Moat, 28 in Middle and 11 in Nether.

Despite Dr Graham's reforms, by 1819 the Netherby estate, including Kirkandrews on Esk, was once again described as in a poor condition. This may have been due to the effect of the Napoleonic Wars on agriculture, or on Dr Graham's son Sir James Graham's disinterest in the performance of the estate, or perhaps Dr. Graham's reforms had not been completed. A report prepared in the mid-19th century describes the estate in 1819 as being in a ruinous condition with good land exhausted by repeated corn crops and divided mainly into small farms of between 40 and 100 acres. A large portion of the land was unenclosed, completely saturated with water and was uncultivated because of the large amount of moss and cold pastureland. Farm buildings on the whole were very poor being chiefly made from clay or mud walls and thatched. Public roads were also in a wretched state. ¹⁹ Ellis, the agent during the time of Sir James, son of Dr. Robert, described the problems that too many tenants and overpopulated farms caused. ²⁰ Because of mounting debt and diminishing income, Sir James Graham transferred control to his son, Sir James Robert George Graham in 1821 while he was still alive.

John Yule, a talented Scottish land agent, replaced Ellis, and together with his employer made many agricultural improvements. These included reforms that had been begun by Sir James Robert George's grandfather, such as increasing the size of farms of from 100 to 500 acres, sharing inferior soils out along with the good, again new farm buildings were erected, as well as roads and bridges. Land was improved with good fences, gates, embankments and drainage. Two tile-kilns were established on the Netherby Estate to manufacture tiles and pipes to be used to improve drainage. ²¹ Tile works between Barns and High Plains in Moat are shown on a map of 1864. ²²

Whereas the number of tenants was increased under Dr. Robert Graham, under his grandson and Yule there was a reduction achieved by selecting and educating the most able, and weeding out those who were incompetent. Between 1823 and 1851 the number of tenants on the entire estate fell from 300 (many of whom were paying low rents and often in arrears) to 140. ²³ We

¹⁹ Report by Brown, the land steward who succeeded John Yule. Quoted in W. Dickinson, 'On the farming of Cumberland', *Journal of the Royal Agricultural Society*, 13 (1852), p. 222.

²⁰ Survey of the Netherby farms, 1819. Netherby MSS. Quoted in David Spring, 'A great agricultural estate: Netherby under Sir James Graham, 1820-1845', *Agricultural history*, vol 29 no. 2 (1955), p. 74.

²¹ Brown & Yule report quoted in Dickinson, 'Cumberland farming', p. 222.

²² OS 1st.ed. Sheet 6, surveyed 1864, scale 6" to 1 mile; Netherby MSS, Memorandum, 1846 in Yule's Letter Book, quoted by Spring, 'Netherby', p. 77. Sir James Graham supplied tiles to the tenants. These tenants then laid the tiles and paid for carriage and labour. Between 1822 and 1846 about 4,800 acres were drained in this way using almost a thousand miles of pipes.

²³ Dickinson, 'Cumberland farming', pp. 221-222.

have seen that in 1780 there were 72 tenants in Kirkandrews parish.²⁴ This had risen by 1797 to 158 tenants paying a total of £4,733 in rent.²⁵ By 1823 there were 143 tenants.²⁶ The numbers in Kirkandrews declined to 75 by 1839²⁷ and to 72 by 1847.²⁸ On the 'best' farms leases were often granted for 14 year leases. Tenancies were subject to a written agreement with strict stipulations²⁹ as well as encouragements.³⁰

All the improvements on the Netherby Estate in Kirkandrews, Arthuret, and Nicholforest came at a considerable cost. By 1845 over £93,000 had been spent on buildings, drainage, roads, bridges, flood defences, liming and mineral exploration, and plantations.³¹ Added to the money Sir James's father had borrowed from the Equitable Society, the total advanced on security of land on the Netherby estate by 1838 was £200,000.³² Income from the estate rents rose from almost £18,000 in 1818 to almost £22,000 in 1845. However by 1842 when the best farms were due for re-letting, Yule struggled to persuade tenants to sign up to increased rents which would cover the capital outlays of the previous two decades.

Agriculture in 19th and 20th centuries

Land ownership:

Since 1628, the Graham family was the only land owner in Kirkandrews, renting the farms to their tenants. They still owned all the land by 1847.³³ In the second half of the 19th century land in Kirkandrews began to be sold. By 1910, although the Grahams still owned the majority of land, some property and land belonged to the North British and Caledonian railway companies, the three schools were owned by Cumberland Education Committee and some small

²⁴ CRO (Carlisle), QRP/1/14. 1780. Land Tax Assessment, Kirkandrews on Esk.

²⁵ Netherby MSS, Manor of Kirkandrews, Rent Book 1796-7, February 2005 (courtesy of Susan, Lady Graham)

²⁶ Netherby MSS, Manor of Kirkandrews on Esk Court Roll 1821-1824, February 2005.

²⁷ CRO (Carlisle), DCL/E/1839. Land Tax Assessment: Middle – 36 tenants; Moat – 22; Nether - 17

²⁸ CRO (Carlisle), DCL/E/1847. Land Tax Assessment: Middle – 37 tenants; Moat – 18; Nether – 17

²⁹ Spring, 'Netherby', p.78. Tenants were forbidden to plough up pasture, to take more than one white crop from arable without a green hoed crop or fallow intervening, or to sell potatoes from their land.

³⁰ Spring, 'Netherby', p. 79, Yule set up a local farmers' society. Diligence was encouraged by the prizes offered at the annual cattle show at Longtown, for example for items such as the best turnip crop, the best Galloway bull, and the best three-year-old carthorse; Dickinson, 'Cumberland farming', pp. 252-3. Three or four bull calves and Galloway stirks were given as prizes annually from Sir James Graham's own herd of carefully selected Galloway cattle. He was also a prominent breeder of short-horns.

³¹ D.J.W. Mawson, 'Agricultural lime burning – the Netherby example', *CW2*, 80 (1980) p. 142. Spring, 'Netherby', p. 80.

³² Spring, 'Netherby', p. 76, 80-81. A net income of £7,000 was not a comfortable income on 26,000 acres. These loans had been obtained at a reasonably low rate of interest (3 1/2%). By 1845 Sir James was aware of the difficulties his finances would be in if the rate of interest were to rise. He informed his son that the family would be better off if they sold the Netherby estate and lived off the income from investing the sum raised by a sale. However this did not happen until the 20th century.

³³ CRO (Carlisle) DCL/E/1847.

parcels of land had been sold prior to 1910, such as Rosetrees Moss to Francis Tinning, later to become a major land owner in the parish, and Mill Hill to Richardson's Moss Litter Company.³⁴ Large amounts of the Netherby estate, including most of Moat, were auctioned in 1912 and 1919.³⁵ By 1938, while Sir Fergus Graham was lord of the manor of Kirkandrews, William Tinning, owner of Mossband, was described as the lord of the manor of the Nether Quarter.³⁶ Captain James Westoll was also one of the principal landowners.³⁷ By 1943 none of the 39 farms and small holdings in Kirkandrews was owned by the Graham family.³⁸ In 1943, twenty-eight farms were occupied by their owners while 11 were tenanted.³⁹ There were 46 farms or units in 1949⁴⁰ which fell slightly to 43 by 1966.⁴¹

Numbers working on the land

The numbers of people working in agriculture in the parish declined from the beginning of the 19th century from a total of 270 males and females in 1801, to 238 males in 1841, 165 males in 1871 and 152 males in 1901.⁴² By 1949, 114 workers were employed in agriculture including 13 women. 14 male workers were seasonal or part-time.⁴³ By 1966, this number had decreased to 69 of whom 47 were males between 20 and 64 years and 4 were seasonal workers. Only 3 women worked on the land by this date (excluding occupiers or their wives). In 1801 nearly 4 times as many people worked in agriculture as in manufacturing, trade or crafts, while nearly 3 times as many were not employed in either category or had no occupation.⁴⁴

Crops and stock

³⁴ CRO (Carlisle), TIR/4/75, Board of the Inland Revenue Land Valuation Records 1910. Domesday Books. Kirkandrews Middle, Moat and Nether

³⁵ CRO (Carlisle), DB 74/3/2/1173; *Carlisle Journal*. 19 Jul. 1912, p.8; CRO (Carlisle), DB 74/3/2/922; *Carlisle Journal*, 1 Aug. 1919. Over 60% remained in Graham ownership after the 1919 auction, but the majority of Moat was sold. (analysis by I R Winkworth, 17 Feb. 2012)

³⁶ Much of Tinning's land was compulsorily purchased in World War 1 for the Munitions factory. They acquired some back in 1929 but lost much of it again when the current depot was opened around the outbreak of World War 2. <http://www.annandaleobserver.co.uk/news/minister-faces-mod-depot-jobs-lobby/3012> (accessed 18/7/12)

³⁷ Kelly, *Dir.Cumb.* 1938, p.192. Captain James Westoll purchased Glingerbank in Middle township in 1918, http://en.wikipedia.org/wiki/Tim_Westoll (accessed 19/7/2012), and he is listed in Kelly's directories from 1921 to 1938.

³⁸ However the Graham family still owned plantations in Kirkandrews and farms in Arthuret.

³⁹ TNA, MAF 32/182/181.

⁴⁰ TNA, MAF 68/4269. Cumberland. Kirkandrews on Esk.

⁴¹ TNA, MAF 68/4971. Cumberland. Kirkandrew on Esk.

⁴² 1801, Enumeration abstract, p. 53; Analysis by F. Winkworth of 1841 census (HO 107/169, pp.1-12), 1871 census (RG 10/5213 pp.8-14, RG 10/5214 pp.1- 14); and 1901 census (RG 13 4862, pp.1-23).

⁴³ TNA, MAF 68/4269. Kirkandrews on Esk.

⁴⁴ Enumeration abstract, 1801, p. 53. Agriculture – 270, Manufacturing etc – 72, Nether – 782.

In the 1790s the soil of Kirkandrews was described as exceedingly fertile in some places for example along the rivers Esk and Sark, but in other places consisting of a cold, wet, whitish clay, which had been improved in the latter part of the 18th century to produce crops of oats. Clover, barley and grass were sown on the farms. There were also tracts of moss and marshland. Cattle, a mixture of the Cumberland and Galloway breeds, were plentiful while sheep were not so numerous. Young cattle were sent out of the parish to graze in the summer.⁴⁵ There was a significant trade in cranberries in the late 18th century.⁴⁶

In 1849 the tithe awards record a yield of almost 109 bushels of wheat, 193 of barley and 278 of oats grown in Moat quarter on 196 acres. In Middle quarter 336 bushels of wheat, 596 bushels of barley and 858 of oats was produced on 607 acres⁴⁷ Nether or Low Quarter⁴⁸ produced 337 bushels of wheat, 597 of barley, and 859 oats on 1194 acres.⁴⁹

In 1914, 1921 and 1938⁵⁰ the chief crops were oats and roots. Oats was the largest crop in 1949 occupying 1152.75 acres with 132.5 acres wheat and 15 of barley. 9 acres were used for vegetables and 5 acres for soft fruit.⁵¹ Barley was the largest crop in 1966⁵² on 825 acres, followed by 396 acres of oats and 73 of wheat. Turnips, swedes and beet for stock feeding were grown on 166 acres. Potatoes occupied 24 acres and other vegetables were grown on 2 acres.

In the mid-nineteenth century Sir James Graham was a prominent breeder of Galloway and short-horn cattle.⁵³ Most of the farms in 1943 were dairy and mixed stock.⁵⁴ In 1949 there were 2854 cattle, 158 pigs and 5409 sheep, 91 horses and 8037 poultry. Stock numbers had increased by 1966 when there were 4046 cattle, 805 pigs, 9210 sheep, and 1769 poultry.⁵⁵ The Foot and Mouth epidemic in February 2001 devastated Cumbria's livestock industry and closed auction markets for 50 weeks.⁵⁶

Game & fish

⁴⁵ Housman in Hutchinson, vol.2, pp 550- 551.

⁴⁶ Hutchinson, vol.2, p.553.

⁴⁷ consisting of Smalmstow and part of Oakbank.

⁴⁸ Mossband and Guards

⁴⁹ CRO (Carlisle), DRC/8/119 Low quarter, DRC/8/127 Middle quarter, DRC/8/131 Moat. Wheat fetched 7/- a bushel, barley £3/11/2d per bushel and oats 2/9

⁵⁰ Kelly 1914, p. 194; 1921, p.192; & 1938, p. 192.

⁵¹ TNA, MAF 68/4269. Cumberland. Kirkandrews on Esk.

⁵² TNA, MAF 68/4971. Cumberland. Kirkandrew on Esk.

⁵³ Dickinson, 'Cumberland farming', p. 252-3.

⁵⁴ TNA, MAF 32/182/181.

⁵⁵ TNA, MAF 68/4971. Cumberland. Kirkandrew on Esk.

⁵⁶ http://www.stackyard.com/news/2007/02/jennifer/02_cumbria_auction_marts.html (accessed 8/10/12)

Game including partridges and hare were noted as being more numerous here than in other parts of Cumberland.⁵⁷ Salmon were plentiful in the rivers Esk, Sark and Liddel and no doubt have always been an important part of the economy. Dr. Robert Graham's attempts to construct a weir on the Esk led to conflict with the Duke of Buccleugh's tenants as it was claimed the dam prevented salmon reaching higher up the river. Eventually a passage was opened for fish to go up and down.⁵⁸ A large salmon fishery was maintained on the River Esk by Sir James Graham.⁵⁹

Several gamekeepers were employed in Kirkandrews in the 19th century.⁶⁰ Game shooting was a key industry on the Netherby estate in the last years of the 19th century and early 20th century. There were nine gamekeepers and a number of rabbit catchers. Rearing wild duck was organised on a large scale. For example, in 1902 10,000 ducks were reared. These wild Mallard ducks were hatched in incubators and hand reared. Many acres of land were enclosed with a six-foot fence of wire netting to keep foxes out and prevent ducks from straying too far. A large part of Sunnyrigg farm and Carwinley Burn wood in Moat township were annexed for this.⁶¹

The shooting year began with grouse shooting on the Solway Moss which harboured great flocks of birds. Then followed partridge over 20,000 acres of farmland. Pheasants also were reared in large numbers under broody hens and then taken into the woods. Hares were shot during the year and also hunted at the Border Union Coursing meeting held at the end of October each year.⁶² Rabbits were perhaps actively farmed. A rabbit "warriner" is listed at Kirkandrews tower in 1871.⁶³

Woodlands

In the 16th century, there was virtually no tree cover on the better land. Where it did occur it was marked on contemporary maps, for example Plump, Thorn, Carleill Bush and Meddop Wood. Enclosure names such as Woodfield, Broomsandbed and Willow bed, below Rosetrees, suggest

⁵⁷ Houseman in Hutchinson, vol.2, p. 551.

⁵⁸ *Cumberland Pacquet*, November 1783, quoted in C. Somerville, *Life and times in Nicholforest and Moat*, Nicholforest Heritage Society, p. 15; Hutchinson, vol.2. pp.554-5.

⁵⁹ Houseman in Hutchinson, vol.2, p. 548.

⁶⁰ 1841 census: HO 107/169/6; 1871: RG 10/5214 p. 4. For example, there were "game guards" at Sunnyrigg and Glinger cottage and a game keeper at Mill Hill in 1841; a game keeper at Riddingshill cottage in 1871, game watchers at Glenzier cottage and Beckside in 1871; 1901 census: RG 13/4862, p.8, two game keepers at Sunnyrigg, and one at Riddings hill cottage, Glinger cottage, Kirkandrews tower, four at Beckfoot, one at Blackbank in 1901

⁶¹ H. Mounsey, 'Rambling reminiscences of 55 years ago on the Netherby Estate, Part 1', *Bewcastle Journal*, vol. 6 (December 1996), p. 14.

⁶² Mounsey, 'Reminiscences'. Vol. 6. p.14-15.

⁶³ 1871 census: RG 10/5214, p. 5

wood, willow and broom were produced for building and tools, basketry and wattle for thatching.⁶⁴ Sir James Graham (Dr. Robert's son) planted about 30 acres of fir at the east end of the Scotsdike, and about 100 acres of fir plantations at the front of the Solway Moss towards Netherby, but these did not do well.⁶⁵

1300 acres of woodland were planted between 1818 and 1845 resulting in 2300 acres by 1845.⁶⁶ Plantations and woods shown on maps in 1864 remain in existence in 2000⁶⁷ with the occasional change of name. Henry Mounsey, head forester for the Netherby Estate until the early 1960s, stated there were about 2,100 acres of woodland on the Estate including both broad-leaved such as oak, beech and elm, and coniferous trees, the former being planted on better soils and the latter on poorer ones. Wood was worked at Carwinley saw mill in Moat township for use on the estate. Small hardwood poles of birch, beech and sycamore were sent to the Bobbin mill in neighbouring Longtown. Oak bark was peeled and sold to tanneries.⁶⁸

Mining and Quarrying

There was a good Freestone quarry at Glingerburn in Middle township around 1790⁶⁹ which was again mentioned in 1829⁷⁰ and 1847.⁷¹ Its stone would probably have been used to build new farm houses and railway buildings in Middle and Nether townships. It is not shown on the Ordnance Survey first edition.⁷² No masons lived at Glingerburn in 1841 but there were two stone masons at nearby Henrystown.⁷³

Moat quarry at High Moat was reported to have started operation in 1868 by Herbertsons Ltd of Galashiels, and by 1901 between 60 and 70 people were employed there.⁷⁴ It was at the height of its operations in the early 1900s with large numbers of men employed in the quarry and at the saws in the extensive railway sidings.⁷⁵ The stone quarried was red Permian

⁶⁴ Cole, 'Debatable land', pp. 50-1.

⁶⁵ Housman *in* Hutchinson, vol 2, p. 551.

⁶⁶ Private statement of Estate Matters 1818-1845, Netherby MSS *quoted in* Spring, 'Netherby', p. 77.

⁶⁷ OS 1st.ed. Sheet 6, surveyed 1864, scale 6" to 1 mile; Explorer 323, 2000, scale 1:25,000, 2000.

⁶⁸ Mounsey, 'Reminiscences, part 2', Vol. 7 (June 1997), pp. 19-20.

⁶⁹ Housman *in* Hutchinson, vol. 2, p. 551.

⁷⁰ Parson & White, *Dir. C. & W.* p. 432.

⁷¹ Mannix & Whellan, *Dir. Cumb.*, p. 612

⁷² OS 1st. ed. Sheet 6.

⁷³ 1841 census. HO 107/169/6, p. 6.

⁷⁴ Bulmer, *Dir. Cumb.*, p. 233.

⁷⁵ OS 2nd edition.1901, Sheet 6. surveyed in 1863, revised 1899, 1912-1921; scale: 25" to 1 mile; Mounsey, 'Reminiscences, part 2', p. 19.

sandstone, a dull red, very fine-grained stone known as ‘Moat stone’.⁷⁶ Herbertson’s quarry was not listed in directories after 1914, so perhaps the quarry had closed by 1921.⁷⁷ It is marked as disused in 1973.⁷⁸

However, Moat quarry appears to have been in operation before Herbertsons began operating here in 1868 but may not have been in existence in the 1790s when only Glingerburn was mentioned.⁷⁹ Seven masons appear on Militia lists for Moat in 1827 although there had been none in 1806.⁸⁰ In 1841⁸¹ and 1851⁸² there were five men connected with the quarry including stone masons, a quarrier and an apprentice at High Moat. Probably stone from this quarry was used to build the new farm buildings in Moat (and Arthuret) as part of the reforms instigated by Sir James Robert George Graham and his agent Yule from the 1820s. For example Carwinley Mill, a listed building with the date of 1826, was built by Francis Blaylock who lived at Road End Croft at Moat Common in 1841.⁸³

By 1861 there were 17 men working at the quarry and the quarry is shown in 1864 with a railway siding.⁸⁴ This stretch of railway line opened in 1862.⁸⁵ Perhaps Herbertsons from Galashiels were attracted to the Moat site because there was already a quarry at this location with the bonus of the railway and siding for transport. The Waverley line ran through Moat and on through the Scottish borders to Galashiels.

Old gravel pits are marked on the east side of railway between Dikesside and St Andrews church in Middle township, as well as opposite Longtown railway station and to the west of the Solway Moss, north of Plump on maps of 1901.⁸⁶

Manufacturing

⁷⁶ J. Watson, *British and foreign building stones: a descriptive catalogue of the specimens in the Sedgewick Museum, Cambridge*. University Press, 1911, p.292.

⁷⁷ Kelly, *Dir. Cumb.*, 1914 p.195; Kelly 1921, p.192.

⁷⁸ OS Plan NY 3873-3973,1973, scale: 1:2500.

⁷⁹ Houseman *in* Hutchinson, vol.2, p. 551.

⁸⁰ CRO (Carlisle), Q/MIL/E/1806 & Q/MIL/E/1827.

⁸¹ 1841 census: H 107/169/8, p.7.

⁸² 1851 census: HO 107/2428, pp. 3-4.

⁸³ <http://www.britishlistedbuildings.co.uk/en-78096-carwinley-mill-arthuret-cumbria> (accessed 12/9/12); 1841 census: H 107/169/8 p.5.

⁸⁴ OS. 1st.ed. sheet 6; surveyed 1864, scale: 6” to 1 mile.

⁸⁵ http://en.wikipedia.org/wiki/Waverley_Line (accessed 26/9/12)

⁸⁶ OS 2nd.ed. 1901. Sheet 6; surveyed in 1863, revised 1899, scale: 6” to 1 mile; OS 2nd.ed. sheet 10, surveyed 1863, revised 1899, scale: 6” to 1 mile.

There were two water mills in Kirkandrews in 1604. One was named as Sark Mill but the location of the other is uncertain as it does not appear on maps of the time.⁸⁷ In 1602 and 1609 William Blakelock was named as the miller at Carwinley Mill.⁸⁸ Although this is now on the Arthuret bank of the Carwinley burn, which divides Moat from Arthuret, it would no doubt have been used by farmers from Moat.⁸⁹

There were corn mills at Glinger in Middle township⁹⁰ and Guards in Nether township.⁹¹ A miller lived at Batenbush, close to Glinger in 1841.⁹² Two millers operated at Guards mill in 1871⁹³ and a corn miller who was also a farmer in 1901.⁹⁴ Guards mill was noted as a water mill in 1906, 1914 and 1921.⁹⁵

Carwinley sawmill existed at least as early as 1841 when a sawyer and woodwarden lived here.⁹⁶ This saw mill created and mended estate fences, rails, gates, and carts. It was no longer recorded on the map in 2000 and it was no longer operating by 1947.⁹⁷ Blackbank sawmill appears in 1864.⁹⁸ Solway saw mill house was recorded in 1871 with four carpenters dwelling there,⁹⁹ but had no sawyers or carpenters living here in 1901¹⁰⁰ and does not appear on the Ordnance Survey second edition map.¹⁰¹ Broomfield timber merchants and saw mills operated at Silver Hill in 1921.¹⁰²

⁸⁷ Cole, 'Debatable land', pp. 61-62.

⁸⁸ Carwinley Mill was leased by a tenant of the Cliffords. Spence, 'Pacification', p. 141.

⁸⁹ Carwinley Mill was listed as in Kirkandrews upon Esk 1693 to 1696. Index of Persons and Places: C', Calendar of Treasury Books, Volume 10: 1693-1696 (1935), pp. 1500-1525.

⁹⁰ Parson & White, *Dir. C & W.*, 1829, p. 433; Mannix & Whellan, *Dir. Cumb., 1847*, p.614; OS 1st ed. sheet 6 Survey 1864/5; OS 2nd ed. 1901, surveyed 1863, rev 1899 Sheet 6 SW

⁹¹ Guards Mill Parson & White, *Dir. C & W.*, p.433, also mentioned in Mannix & Whellan, *Dir. Cumb., 1847*, p.614, and in Post Office Directory 1873, p.178.

Guards Mill corn mill near Sark Bridge. OS 1st.ed. Sheet 6. 1864, scale: 6" to 1 mile.

⁹² 1841 census: HO 107/169/6, p.12.

⁹³ 1871 census: RG 105124, p. 7.

⁹⁴ 1901 census: RG 13/4862, p.8.

⁹⁵ Kelly, *Dir. Cumb.*, 1906 p. 183. Kelly 1914, p. 195. Kelly 1921 p.192.

⁹⁶ 1841 census: H107/169/8/ p.6.

⁹⁷ Gordon Ritson, resident of The Barns who moved to Moat in 1947. OS, Explorer 323. 2000. Carwinley saw mill cottage is listed in Cumberland Directory, 1954, p. 122.

⁹⁸ OS 1st.ed. sheet 10, surveyed 1864, scale: 6" to 1 mile.

⁹⁹ 1871 census: RG 105124 p. 12. Situated between Blackbank crossing and Mosside farm.

¹⁰⁰ 1901 census: RG 13/4862, p.9.

¹⁰¹ OS. 2nd.ed. Sheet 10, surveyed 1863, revised 1899-1900, scale: 6" to 1 mile.

¹⁰² Kelly *Dir. Cumb.*, 1921, p.192.

A tile works was shown in 1864 between Barns and High Plains in Moat township¹⁰³ and a tile maker lived at Boyd's croft, close by, in 1851.¹⁰⁴ By 1901 the tile works is no longer shown but instead denoted as 'Tilekiln woods'.¹⁰⁵

By 1841, in addition to agricultural workers and supporting rural trades such as blacksmiths, shoemakers, cloggers, tailors and dressmakers, wood workers and masons there were a number of cotton weavers in Middle and Nether townships as well as in neighbouring Longtown.¹⁰⁶ These were probably out-workers for cotton merchants in Carlisle. In the 1860s the cotton industry was adversely hit by the American Civil War. The abolition of slavery also brought an end to slave owners buying woven cotton uniforms from England. There was only one weaver listed as living in Kirkandrews in 1871.¹⁰⁷ Many cotton weavers had to seek refuge in Longtown workhouse and over 200 of them are known to be buried in Arthuret churchyard in an unmarked grave near the north wall of the building.¹⁰⁸

Railway building across the parish created employment from the 1840s, although many of the workers were from outside the parish. By 1847 the Caledonian Railway had a station near Gretna in Nether township and railway labourers were recorded at Gretna station in 1851.¹⁰⁹ By 1861 the North British railway was under construction through Kirkandrews with stations at Longtown (this station was situated in Kirkandrews parish), Scotch Dyke and Riddings. Over 100 men were involved in building the railway through Moat in 1861 resulting in the population leaping from 199 in 1851 to 376 in 1861. Many lodged at existing cottages and some had their families with them. There were also numbers of labourers housed in purpose built accommodation which had disappeared by 1871 when the population had dropped to 162.¹¹⁰ Whilst the influx of railway labourers, mostly from Ireland and Scotland, was temporary, the railway continued to provide employment in occupations from station masters to plate layers, signal men, crossing gate operators and porters until the Waverley line and Longtown branch line were closed in 1970.

¹⁰³ OS 1st.ed. Sheet 6, surveyed 1864, scale: 6" to 1 mile.

¹⁰⁴ 1851 census: HO 107/2428, p.10.

¹⁰⁵ OS. 2nd.ed. Sheet 6, surveyed 1863, revised 1899; scale: 6" to 1 mile.

¹⁰⁶ 1841 census H0 107/169/7. At least 35 men gave their occupation as weaver or cotton weaver. No doubt their families also assisted in the industry increasing the numbers significantly.

¹⁰⁷ 1871 census: RG 105124, p.10, at Mill Hill.

¹⁰⁸ G. L. Routledge, *Longtown*, (Carlisle 2000), p. 20.

¹⁰⁹ 1851 census: H0 107/2428, p. 151.

¹¹⁰ RG 9/3911 pp. 11-15. The 1861 census noted a temporary increase in the population of Moat by about 176 railway labourers. 1861 Population tables, table 40, p. 682.

The railway facilitated other industries. For example there were sidings at Moat quarry for the transport of stone, and a coal and lime depot at Longtown station.¹¹¹

In 1864 there was a bone mill adjacent to the Sarkbank hotel.¹¹² A manager of the bone mill factory is recorded in 1871.¹¹³ Miller's Gretna Ltd., which was a slaughter house, meat and bone fertilizer and tallows manufactory, operated at Mill Hill, near Gretna in 1938.¹¹⁴

In Nether Township, near Gretna station, Richardson's Moss Litter Company Ltd was established in 1898 to extract peat from the Solway Moss. It employed between 60 and 70 people in 1901.¹¹⁵ The extensive workings included a 30-inch gauge railway where the locomotive 'Workhorse' hauled trains of peat for many years. The railway ceased operation in 2000.¹¹⁶ This company was operating in 2012 at Solway Moss Works, Mill Hill.¹¹⁷

Manufacturing – 20th century

The largest manufacturing operation in Kirkcandrews (described as 'the biggest factory in the world') was Her Majesty's Factory Gretna, or The Great Munitions Factory. It was built in 1915 by the Ministry of Munitions for the manufacture of Cordite, known as Devil's Porridge, because of the shortage of shells on The Front, on land that was compulsorily purchased. It consisted of four production sites (two of them, Smalmstown and Mossband, in Kirkcandrews Nether Township), two new towns in Scotland (Gretna and Eastriggs) and an independent water supply with water taken from the River Esk north of Longtown. It had its own narrow gauge railway network, its own coal-fired power station, telephone exchange, police force, laundry and bakeries. Pubs and brewing in the vicinity were subject to strict liquor control because of the dangerous nature of the material, which led also to the nationalisation of the pubs in the area.

¹¹¹ OS 1st.ed. Sheet 6 & 10, surveyed 1864, scale: 6" to 1 mile.

¹¹² OS 1st.ed. Sheet 9, surveyed 1864, scale: 6" to 1 mile.

¹¹³ 1871 census: RG 105124, p.7.

¹¹⁴ Kelly, *Dir. Cumb.*, 1938, p.192.

¹¹⁵ Bulmer, *Dir. Cumb.*, 1901, p. 234.

¹¹⁶ <http://www.perrygrove.co.uk/other-railway-rolling-stock> (accessed 1/10/12);

http://www.ingr.co.uk/vids_dig8.html (accessed 2/10/12)

¹¹⁷ http://www.yell.com/ucs/UcsSearchAction.do?keywords=richardsons+moss+litter&location=mill+hill%2C+gretna&scrambleSeed=67063000&searchType=&M=&bandedclarifyResults=&ssm=1&autocomplete=kw_recentlo_recent (accessed 5/11/12)

At the end of the First World War, this huge plant was closed and much of it was sold off in the 1920s.¹¹⁸ Part of the Mossband site was used to store ammunition in the 1930s. It became known as Central Ammunition Depot (CAD) Longtown, being later downgraded to a Base Ammunition Depot (BAD) Longtown. Smalmstown became a sub-depot of CAD Longtown.¹¹⁹ The Royal Army Ordnance camp at Mossband was also a German Prisoner of war camp in the Second World War.¹²⁰

Other businesses and service industries

Thomas Cochrane operated a market garden at Dickstree from 1914¹²¹ which was still operating as Cochrane's nursery in 2012.

In Moat there was a grocer at Black Lonning Road End toll bar cottage in 1851 and a shopkeeper in Moat in 1873 and 1901.¹²² In Middle township there was a grocer in 1841 near Becklees, and also in Nether at Mossband and Caldwell Peth in 1871.¹²³ The proximity to Longtown, the adjacent market town, no doubt obviated the necessity for shops in the 20th century. A post office at Carwinley seems to have ceased operation by 1914. This would have been convenient for Moat residents even though it is just in the adjacent parish.¹²⁴

In the 19th century there were two inns. By 1864 there was the Sarkbank Hotel by Sark bridge and the Graham's Arms public house north of Guards Corn Mill.¹²⁵ The Graham's Arms is mentioned in 1914 but not in later directories.¹²⁶ The Sarkbank Hotel operated in 2012 as the Gretna Chase hotel. It was built in 1856 by John Murray, a successful business man in the runaway marriage trade, opposite the Sark toll bar on what is now the A6071 Longtown to Gretna road.¹²⁷ In 2012 there was also the Marchbank hotel near the Scotsdike: Marchbank house probably dates from the end of the 19th century.¹²⁸

¹¹⁸ CRO (Carlisle), DX 2040; DX 132/349 gives some idea of the size of the site – over 600 lots for sale in 1924 including cinemas, post offices, banks, hostels, hospital, fire station and 300 houses.

¹¹⁹ http://en.wikipedia.org/wiki/HM_Factory,_Gretna (accessed 1/10/12); <http://www.secretscotland.org.uk/index.php/Secrets/HMFactoryGretna> (accessed 2/10/12); G.L.Routledge, 'Gretna's secret war: the great munitions factory at Dornock, Easttriggs, Gretna and Longtown and an account of the Quintishill railway disaster', (Carlisle, 1999).

¹²⁰ Eileen Buckley-Knowles. http://www.francisfrith.com/mossband/memories/mossband-camp_70041/, (Accessed 1/10/12)

¹²¹ Kelly, *Dir. Cumb.*, 1914, p. 194; Kelly 1938, p.192.

¹²² 1851 census: H0 107/2428, p.9; Post Office Directory, 1873, p. 178; Bulmer, *Dir. Cumb.*, 1901, p. 235.

¹²³ 1841 census: H0 107/169/6 p.9; 1871 census: RG 105124 p.15; PO 1873, p.178.

¹²⁴ Kelly, *Dir. Cumb.*, 1906, p. 183. Noted in Kirkandrews directory entry.

¹²⁵ OS 1st.ed. sheet 9, surveyed 1864, scale: 6" to 1 mile.; Post Office Directory, p.178.

¹²⁶ Kelly, *Dir. Cumb.*, 1914, p. 195.

¹²⁷ <http://www.gretnachase.co.uk/> (accessed 1/10/12)

¹²⁸ OS 2nd. ed., Sheet 6, surveyed 1864, revised 1899, scale: 6" to 1 mile.

1938 it was noted that electricity was available in Kirkandrews and water was supplied from a reservoir near Oakshaw Hill, in Arthuret.¹²⁹

A proposal to erect wind turbines at Beck Burn Peat Works, Springfield in 2011 was turned down because of the MoD's objections that the turbines would interfere with the operation of the Eskdalemuir Seismological Recording Station.¹³⁰

Economic history since 1945

In 2012, as in the 19th and 20th centuries, agriculture occupied the majority of the land in Kirkandrews parish. However, some farms had diversified, as for example road and timber haulage at Edwardstown and Englishtown respectively, and camping sites at Oakbank, which also had a fishery, Moat Vale and High Gaitle.

Since 1945 small industries became important to the local economy. The MOD was still a major employer in 2012. However closure of the Longtown and Eastriggs Munitions sites, which could lead to the loss of 300 jobs, had been under consideration by the Ministry of Defence since 2010 and the sites were scheduled to lose their explosives licences at the end of 2014. A decision on closure was expected to be made in December 2012.¹³¹

A small industrial estate, named Longtown Townfoot, developed in Kirkandrews Nether township immediately across Longtown bridge on the site of Longtown railway station with its coal and lime yard which closed in 1970, as well as the disused bus depot and petrol filling station. Also on the north side of the A7 lay Armstrongs haulage and truck centre, established in 1927¹³², a garage and kitchen warehouse, an agricultural supplier, and factory units which were refurbished in 2005¹³³ and in 2012 house a bike shop, vet/pet supplies and laundry. Cumberland and Dumfriesshire Farmers' Mart, founded in 1926 by local farmers, registered as a Public Limited Company in 1981 and in 2012 the largest UK centre for sales of sheep,¹³⁴ lay on the opposite, south side of the A7. Fishermen's huts were on this site towards the end of the 19th century.¹³⁵

¹²⁹ Kelly, *Dir. Cumb.*, 1938, p.192. The first electric lighting at Netherby was by water turbine powered by water flowing down from Carwinley Burn. Mounsey, *Reminiscences*, p. 18.

¹³⁰ www.dpea.scotland.gov.uk/Documents/qJ12843/A2244456.pdf (accessed 1/10/12)

¹³¹ <http://www.bbc.co.uk/news/uk-scotland-south-scotland-11325477> (accessed 16 September 2010); <http://www.bbc.co.uk/news/uk-england-cumbria-19253070> (accessed 14 August 2012).

¹³² <http://www.warmstrong.co.uk/wm-armstrong-longtown> (accessed 1/10/12)

¹³³ North West Evening Mail, 24/6/05 (accessed 30/9/12)

¹³⁴ <http://www.cdfarmersmart.co.uk/about/index.html> (accessed 30/9/12)

¹³⁵ G. L. Routledge, *Longtown*, p.58.

In addition to these industries, some of Kirkandrews residents worked in Carlisle in the early 21st century.