THE INDUSTRIES AND ECONOMY OF CUMBRIA

An Overview Eric Apperley January 2020

Caution:

Researching for this article has been difficult. There were 55 larger companies in the County in 2018¹ (and Appendix 2) although (this would have included local and national government concerns, NHS, building companies, retail chains, university and colleges and others.) The article should therefore be considered a precursor to a major research exercise which would be time consuming and probably expensive in travel costs.

Note also: companies frequently change their names, or are taken over by larger ones, becoming part of a global conglomerate. Be aware that dates are open to interpretation - when a company formed and when its first factory started production may be several years apart, and finding any reference to these may involve several different sources none of which are primary sources and give different dates. Specific references have not been given.

INTRODUCTION

The county of Cumbria is characterised by its mountainous centre (land over 750 m) with limited routes through it so that nearly all the towns which could develop to create wealth by employment are to be found on the perimeter. This mountainous area and a similar stretch of the North Pennines in the east have limited value, only as sheep pasture. The lowlands of the Solway plain and the Furness & Cartmel peninsulas, together with the Eden valley and the Kent and Lune valleys provide opportunities for more pasture and for arable farming. With extensive rivers systems and very high rainfalls in catchment areas inland there was a thriving mill system for wool products, driven by water power (e.g Cockermouth has records of 19 mills at sometime or other). Throughout the county, the geology is such that there are many minerals, which have been mined in the past from very early times, usually by just a few individuals. As early as the 12th Century there is evidence of mining and quarrying in Cumbria, and it probably dates back to Roman times. Everywhere in Cumbria there is physical evidence of this industry to be seen – lead, copper, zinc, baryte, haematite, tungsten, graphite, fluorite, and coal were being mined and quarried.²

With the arrival of the Industrial Revolution, the extensive deposits of iron ore (haematite -the very best) and the coal to smelt it, led to the development of many iron ore quarries and collieries, almost always on or very near the coast since transporting any of the mineral outputs meant packhorses because roads were so poor. The advent of the railways eased these problems and the complex of railways in such as West Cumbria is discussed in the companion articles in this database in the "About The County" section under the title of "Communications". Many of these railways have gone. Transport in the

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county remains a headache, not least for the road network. The trunk roads A66, A69, A590 have been somewhat improved but Carlisle to Barrow is 87 miles and likely to take two hours by car, Workington to Barrow only 53 miles but not less than about 1³/₄ hours along a tortuous A595. The main North-South route (motorway M6) is now complete. Rail travel is no better, Carlisle to Barrow - 2 hours with a change and wait in Lancaster or 2¹/₂ hours direct down the coast line (not many trains do this), Workington to Barrow 1 hr 40 min.

A more detailed analysis of the physical setting of Cumbria and some individual studies of selected areas can be found in

R. Millward & A. Robinson, Cumbria, London 1972 in the Landscapes of Britain series.

The industry of Cumberland was reviewed in the early Vol.II of the VCH published in 1905;² there was no comparable analysis for Westmorland, whilst that for the VCH of Lancashire (in Vol 8) had very little to show.³ The Township entries in the database do record briefly some of the economic factors which apply to that township.

This article attempts an overview of the whole modern county, in particular how this changed in the 20th Century. The focus has been on entities which would have been seen as significant in the community in which they were set up, so that there will be many smaller enterprises which have not been mentioned.

With the Industrial Revolution coal and iron ore became major industries by a collective of many pits, mines or quarries. Trading these products out of the county would have been by packhorse until the advent of the railways made a major difference. The other major portions of the economy were wool, primarily in Westmorland where Kendal was a major processing centre. The bulk of the cotton industry was in Lancashire (south of the sands) but Carlisle had a substantial contribution too.

Iron ore and coal became in high demand with the development of the iron & steel industry (though more coking coal to make steel had to be brought in from the Durham coalfield hence the cross-Pennine railway routes) and coal became a major export leading to the creation, almost from scratch of the ports and towns of Maryport, Workington, and Whitehaven.

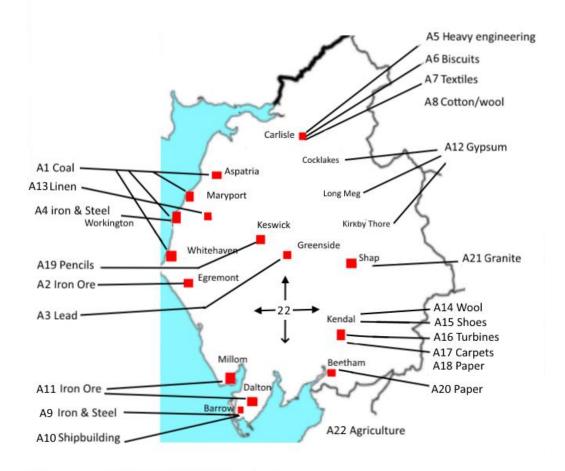
By the end of the **19th century**, the main industries were as in Table A.

	TABLE A Main	Cumbria Industries at end of 19 th (Century	
District	Industry	Main companies	Main products	Ref
West Coast	Mining	Many Coal mines	Coal	A1
		Several Iron Ore Mines; In 1901 the census showed 3,923 workers in Iron Ore mining at Ullcoats (Egremont) and Hodbarrow (Millom) ⁴	Haematite	A2
Patterdale (Greenside)		Of 10 listed, only one had over 100 workers, mining for lead ⁴	Lead	A3
Workington	Metal manufacture	Workington Iron & Steel Co.; As Workington Haematite & Co producing Pig Iron from local ore 1856 – Workington Iron & Steel Co in 1909	Railway rails	A4
Carlisle	Heavy Engineering	Cowan Sheldons; from 1847; taken over by NEI (Newcastle) and closed down with a full order book in 1987 – production to Newcastle	Crane and heavy engineering manufacture	A5
	Biscuits	Carrs; Founded 1831; now part of MacVities; severely damaged by floods in 2005 and 2016	Biscuits	A6
	Textiles	Ferguson; Holme Head mill from 1825.	Cotton dress fabrics	A7
	Cotton/Wool	Dixon's/Todd; From 1836; at its peak Dixon employed 8,000 in the four mills around here. Largest mill in England; tallest chimney in England; Todd with wool production from 1888.	Cotton /wool products, at Shaddon Mill	A8
Furness	Iron & Steel	Barrow Haematite Steel Co 1858/1984; at one time largest steel works in Europe	Steel production	A9
	Shipbuilding	Vickers SEL; now mainly submarines and smaller naval vessels. List of all ships built here impressive ⁵	Shipbuilding & Engineering; Armaments	A10
Millom	Iron Ore	Millom M & S Co 1867- Hodbarrow one of the largest bodies of haematite ever discovered - Hodbarrow Mining Co from 1853 then MMS by 1867; closed 1968; site now a major nature reserve.	Mining & Smelting	A11
Eden Valley	Anhydrite	British Gypsum; Cocklakes earliest 1695; Long Meg 1879; Kirkby Thore by 1850	Gypsum for plaster	A12
Cockermouth	Linen	Harris's; (Derwent) Mill from 1834 until 1934	Flax and linen	A13
Kendal	Wool (cotton)	Census 1901 quotes 1099 workers in these trades but there seems to be no major company dealing with it ^{. 6}	Wool and textile trades	A14
	Leather	K Shoes; Somervell 1853; 1868 largest employer in Kendal; ≫1981 Clark's of Street; last shoes made 2003	Shoe manufacture	A15
	Turbines	Gilbert, Gilkes and Gordon 1856- Originally Williamson Bros 1853- Gilkes 1881;	For hydro power	A16

		famed for lighting Cragside from hydro - electricity 1878; Balmoral 1897		
	Carpets	Goodacre - Originally 1863? But current operations 1930	Axminsters	A17
(Burneside)	Paper making	Croppers	Specialised papers - 1750's ; 1832	A18
Keswick	Pencils	Derwent Pencils – started with graphite from Borrowdale	With museum	A19
Beetham	Paper making	Henry Cooke's Waterhouse Mill; originally from 1788	Specialised papers	A20
Shap	Quarrying	Shap Granite - Small scale until about 1930 ⁷	Granite & limestone	A21
Countywide	Agriculture	1901 the census showed 17,276 workers in Cumberland; 6,634 in Westmorland.		A22

1901 Major Industries of Cumbria

Numbers refer to Table A



This saw the decline of several of the above industries from competition from abroad with cheaper labour and advancing technology outstripping the established production methods. The knock-on effects of World War I and the global Great Depression of 1929 had a major impact on employment in West Cumbria with places like Maryport and Aspatria suffering 30% or more unemployment. [Again figures differ in different articles – some quote as high as 100%].

From 1934 there were many attempts to bring new enterprises to West Cumbria. Many of these are in Tables D & E, and probably others not yet identified – a criterion for mention has been something that would have been seen as a significant factor in the community where it was located and almost always employing several hundreds of employees.

District	Industry	Closed	Main companies & Main products	Ref
Workington	Iron & Steel	2006	Workington Iron & Steel Co - makers of rail track exported round the world closed. Modern railways wanted longer lengths than could be rolled here.	B1
	Coal Mining	1973	Last Colliery closed (Solway, opened 1937)	B2
Maryport	Coal mining	1967	Last colliery closed (Solway, opened 1937)	B3
ind yport	Shipbuilding	1765- 1914	The ultimate decline of shipbuilding at Maryport was due to the ships having to be towed up the west coast to Glasgow, or around the country to the Tyne to have the boilers and engines installed.	B4
Whitehaven	Coal Mining	1985	Last colliery closed (Haig Pit [and Wellington Pit] from 1914 ⁹	B5
Egremont	Iron Ore Mining	2007	Iron Ore Mining at Florence mine continued until 2007	B6
Cockermouth	Flax/Linen	1934	Harris's Flax, Linen production since 1834 at Derwent Mill	B7
Carlisle	Cotton/Wool	Ву 2005	Dixon's mill 1836-1883;Todd wool now based at Loughborough and all production overseas. Mill was largest in England and famous Chimney at 305 ft (93 m) [later reduced to 290 ft, 88m] was 8 th largest in world.	B8
	Textiles Metal manufacture	1991 1987	Ferguson from 1825 at Holme Head Mill (now listed) Cowan Sheldons Heavy engineering	В9
Kendal	Shoes	2003	Somervell 1853; 1868 largest employer in Kendal; 1981 Clark's of Street; last shoes made 2003	
Barrow	Steel making	1984		B10

TABLE B Old Industries now closed down

Also leisure and tourism were soon rapidly growing activities, becoming one of the largest components of the county's employment and financial turnover, amounting by 2014 to £2.24bn supporting 56,000 jobs.⁸

District	Industry	Started	Main companies & Main products	Ref
Keswick	Pencil manufacture	1832-	Derwent Pencils	C1
Carlisle	Tin box manufacture	1869-	Metal Box Co > Crown Bevcan UK	C2
	Biscuits	1831-	Carr's /McVittie's	C3
	Man-made textiles	1835-	Stead McAlpine	C4
Kendal (Burneside)	Paper making	1832-	Cropper's	C5
Kendal	Carpets	1863-	Goodacre	C6
	Gilbert, Gilkes and	1856-	Water Turbines	C7
	Gordon			
Barrow	Shipbuilding	1871 -	Barrow Shipbuilding Co; > Vickers; VSEL	C8
	Marine engineering;	1847-	James Fisher	C9
	services to nuclear			
	industry			
Kirkby Thore	Gypsum for plaster	Ву	British Gypsum from Anhydrite	C10
		1850		
Beetham	Papermaking		Henry Cooke	C11
Shap	Granite/Limestone		Shap Granite	C12

TABLE C Old Industries surviving

TABLE D New Industries folded already

District	Product	Date operative	Company	Ref
Workington	Acetate filters	19902015	Ectona Fibres	D1
	Woollen cloth makers	1940-1965	Cumberland Cloth Co.	D2
Lillyhall	Aluminium parts for	1940's- 2007	High Duty Alloys (> Alcan Pechney	D3
	aircraft		Aviatube)	
	(inc Concorde)			
	Buses	1971-1993	British Leyland > Volvo from 1983	D4
Maryport	Rubber footwear	1940-1980	Bata	D5
	Packers of dried &	1939 -1997	Lakeland Food	D6
	preserved fruit, veg &		Industries >Tynebrand >Spillers Foods	
	meat products			
	Monitoring equipment	1940-1956	Electroflo Meters, > GEC Eliott	D7
			Automation ¹⁰	
	Plastic buttons	1938-1958	Hornflowa>1955>British Industrial	D8
			Plastics>1955 Turner & Newall; 1958	
			Maryport closed	
	Childrens' Wear		Cumberland Childwear	D9
Cockermouth	Shoes	1940-1975	Millers	D10
Longtown	Ammunition	1930's-	Central Ammunition Depot (CAD)	D11

Whitehaven	Phosphates for detergents	1940-2005	Marchon > Albright & Wilson> Huntsman	D12
	Silk/nylon furnishing fabrics	1943-1958	Sekers	D13
Whitehaven & Silloth	Curled hair & Plastic Foam	1945-1991	1975> Beaver Paint Group>Coventry Hood International> bankrupted 1991	D14
Cleator	Hat manufacture	1938-2009	Kangol > 2006 Sports Direct >2009 Bollman & closed down	D15
	Paper & plastics converters	1939	Cumberland Paper Co.> 1958 Cross Paperware > 1989 Bowater CP > 1989 J Dunhill & Co (Luton)	D16
Millom	Leather manufacture	1938-1979	West Coast Chrome Tanners	D17

TABLE E New Industries still functioning

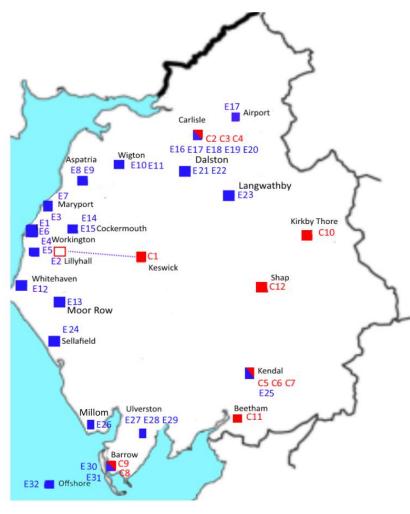
(almost all entries have a more detailed statement on their company website)

Note: by the 21st century, a high proportion of employment is in service businesses such as NHS, County and District Councils, some Government depts., university and colleges. These may well have over the 250 employees and fit the criteria of having significant impact on the communities around them. They are covered in Table F.

District	Product	Started	Company	
Workington	Board for such as	1966-	(was Thames Board Mill) > Iggesund	E1
	cereal packets		Paper Board	
	Man-made textiles	1969-	Camtex Fabrics Limited was	E2
			established here specifically to bring a	
			new product, Cambrelle, to the	
			international footwear market.	
	Sports shoes	1982-	New Balance Trainers	E3
	Flexible packaging	1880-	Smiths Bros > Lawson Mardon Smith	E4
			Bros. > Amcor Packaging	
	Design and	1948-	Fischer & Porter > McMenon	E5
	manufacture of Flow		Engineering Services	
	and Temperature			
	measurement products			
	Forging; continuous	1941-	Distington Engineering Co; Part of	E6
	casting		Workington Iron & Steel. Design,	
			manufacture, installation and	
			commissioning of continuous casting	
			machines. Still working now as TSP	
			Engineering	
Maryport	Sports Pitches	By 2011	SIS, Synthetic, natural and hybrid turf	E7
	construction company			
Aspatria	Mattresses	1974-	Sealy Beds	E8
	Cheese making	By 2014	First Milk Creamery: wholly British	E9
			farmer-owned dairy co-operative	
Wigton	Sustainable cellulose	2016-	Futurmara Chemicals – opened 2016	E10
	films		and acquired Innovia	
	Films, now for	1935-	British Cellophane > Innovia;	E11
	banknotes		banknotes printed elsewhere	

Whitehaven	Uniform makers	1940-	Military dress uniforms & others; >	E12
			Turner & Whitehouse	
Moor Row	Engineering for nuclear	1948-	Shepley Engineers	E13
Cockermouth	Gaskets	1969-	James Walker	E14
	Motor Sports	1997-	M-Sport (Dovenby)	E15
	Engineering			
Carlisle	Vehicle tyres	1968-	Pirelli	E16
	Logistics	1940-	Eddie Stobart; HGV distribution around	E17
			country; has significant fan club; now	
			expanded as Stobart Group into rail	
			freight and aviation (Carlisle, Southend	
			airports and flights.	
	Food manufacturing	1912*	Cavaghan & Gray > Northern	E18
			Foods(1998) > 2 Sisters Group; up to	
			2004 largest employer in Carlisle	
	Heavy engineering	1973*	Clark Doors -specialist needs	E19
	Repair engineering for		TEAM Industrial Services	E20
	nuclear industry			
Dalston	Milk products	1962-	Nestle's over 300 employed	E21
	Off-shore engineering	1965-	Lawson Engineering e.g. ROV	E22
Penrith	Poultry production	1950's	Frank Bird (Langwathby)	E23
Sellafield	Nuclear reprocessing;	1942-	Sellafield; Europe's largest nuclear site	E24
	Calder Hall	1956-2003	First nuclear power station; the full-	
			scale of Sellafield Ltd extends to 11	
			main units (some off-site, some	
			contractors) with some 16000 workers	
Kendal	Power distribution &		Anord Mardix	E25
	protection			
Millom	Hosiery	1948-	A Hearfield > 1960 Elbeo (Germany)	E26
Ulverston	Pharmaceuticals	1948-	Glaxo	E27
	Electronic Components	1942-	Oxley Developments	E28
	Subsea Components;		Siemens	E29
	electrical distribution			
	and control			
Barrow	Pulp & paper mill	By 1972,	Kimberly-Clark -(Toilet) paper	E30
		1950's?		
	Nuclear material	1975-	Pacific Nuclear Transport	E31
	transport			
Walney	Offshore Wind farms	2011-	Walney Wind Farm; largest in world in	E32
			2011	

2019 Main Industries of Cumbria



Data in RED refers to older established industries still existing

- 1 Pencils
- 2 Metal Box
- 3 Biscuits
- 4Textiles (Stead McAlpine)
- 5 Paper
- 6 Carpets
- 7 Water turbines
- 8 Shipbuilding
- 9 Marine engineering
- 10 Gypsum
- 11 Paper
- 12 Granite

Data in Blue - new industries post-1900 still operating

- 1 Paper Board
- 2 Man-made textiles
- 3 Sports shoes (trainers)
- 4 Flexible packaging
- 5 Control instruments
- 6 Forging, continuous casting
- 7 Artificial sports pitches
- 8 Mattresses
- 9 Cheese making
- 10 Sustainable film
- 11 Film for banknotes
- 12 Uniform makers
- 13 Engineering for nuclear
- 14 Gaskets
- 15 Motor sports equipment
- 16 Vehicle tyres
- **17 Logistics**

- 18 Food Manufacture
- **19 Heavy Engineering**
- 20 Repair engineering for nuclear
- 21 Milk products
- 22 Off-shore engineering
- 23 Poultry production
- 24 Nuclear processing
- 25 Power distribution & protection equipment
- 26 Hosiery
- 27 Pharmaceuticals
- 28 Electronic components
- 29 Undersea components
- 30 Toilet paper
- 31 Nuclear transportation
- 32 Offshore windfarm

Table FMajor service industries in Cumbria 2019

By the end of the 20thC , the manufacturing capacity of the country had much diminished to be replaced by "service businesses". This change was reflected in Cumbria , where in 2019, production [manufacturing (4.9%) and Construction (11.9%)] accounted for only 17% of all 23,585 businesses, with production generating £3.03bn (27% of the Gross added Value of the County. The major service businesses are listed below – they often comprise multiple units or subsidiaries spread across the county, whilst some, such as care homes may well be owned by one of the major operators covering much of the country. Likewise there are many small and very small businesses in the hotel and guest house, and restaurants field which are not included here. [An arbitrary cut-off point of 100 employees has been used.]

Aspect	Sub-section	No of	Employees
		units	(approx.)
Health Services	Main Hospitals	4	800
	District Hospitals and GP Partnerships	5	1600
	Other GP Partnerships	7	1300
	Others -ambulance, hospices, CHOC	4	730
Education	Primary	6	960
	Secondary	23	3600
	Technical & vocational; first degree level	7	1500
Councils	General public administration activities	17	3600
National Gov Operations	Regulatory functions	5	2700
Social work activities with or without accommodation for the elderly and disabled	All social care work	22	3100
Police & prisons	Public order and safety activities	5	2100
Transport	Land, sea & warehousing	13	2600
Retail sales stores	Retail sale in non-specialised stores with food, beverages or tobacco predominating	29	6200
Wholesale	Wholesale operations	8	1000

The Cumbrian Scene in 2009: Gross Value Added (GVA) ¹¹

Over the long term (1995-2006) Cumbria remains the slowest growing of the 37 countytype areas in the UK, with an overall growth rate of 41.2% compared to 66.0% in the Northwest region and 80.0% for the UK as a whole.

Since 2005 Cumbria has grown at around the same rate as the region (5.0% vs 5.2% respectively).

Cheshire is the fastest growing part of NW at 6.5%.

GVA per head in the county now stands at £14,044 compared with £16,482 in the NW and £19,430 in the UK (74% of the UK average – the same index as we have seen every year since 2001).

There is significant disparity between West and East Cumbria. Overall East Cumbria has grown by 51.8% since 1995 compared with 29.0% in West Cumbria, the slowest of any of the 133 sub-county areas in the UK.

Over the latest year (2005-2006) East Cumbria's growth rate stands at 5.5% while West Cumbria's is 4.4%

APPENDIX 1 Businesses by industry Cumbria 2018 ¹²				
	Cumb	ria		
	Count	%		
Agriculture, forestry & fishing	4,855	20.6		
Professional, scientific & technical	2,900	12.3		
Construction	2,810	11.9		
Accommodation & food services	2,080	8.8		
Business administration & support services	1,635	6.9		
Retail	1,580	6.7		
Arts, entertainment, recreation & other services	1,315	5.6		
Manufacturing	1,155	4.9		
Health	720	3.0		
Motor trades	700	3.0		
Transport & storage (inc postal)	695	3.0		
Financial & insurance	630	2.7		
Information & communication	620	2.6		
Property	600	2.6		
Wholesale	560	2.4		
Education	420	1.8		
Public administration & defence	180	0.8		
Mining, quarrying & utilities	135	0.6		

APPENDIX 1 Businesses by industry Cumbria 2018¹²

APPENDIX 2 Businesses in Cumbria – by size in 2018

	Cumbria		Engla	nd
	Count	%	Count	%
Large (250+)	55	0.2	8,985	0.4
Medium-sized (50 to 249)	340	1.4	36,050	1.6
Small (10 to 49)	2,105	8.9	199,135	8.6
Micro (0 to 9)	21,090	89.4	2,073,890	89.5
Total	23,585	100	2,318,060	100

SOURCES

The <u>Cumbria Industrial History Society</u> has an extensive collection of detailed studies of individual industries compiled by its members and others and added to frequently. The articles are available online at <u>http://www.cumbria-industries.org.uk/.</u> The contents at 9 December 2019 are included in the table below and each is linked directly to the corresponding page on the website. The items in red relate to the industries covered in the Tables in the article.

<u>Aviation</u>	<u>Corn mills</u>	Lead and Zinc	<u>Salt</u>
<u>Barytes</u>	<u>Cotton</u>	<u>Limekilns</u>	<u>Shipbuilding</u>
<u>Bobbin mills</u>	<u>Electricity</u>	<u>Limestone</u>	<u>Slate</u>
Breweries	<u>Farming</u>	<u>Linen</u>	Tanning
Brick making	<u>Flax</u>	<u>Paper</u>	Tile making
<u>Canals</u>	<u>Footwear</u>	Ports and Harbours	<u>Wad</u>
<u>Carpets</u>	<u>Gas</u>	<u>Potash</u>	<u>Water</u>
<u>Charcoal</u>	<u>Gunpowder</u>	<u>Pottery</u>	<u>Wolfram</u>
<u>Chemicals</u>	<u>Gypsum</u>	<u>Quarrying</u>	Woodland industries
Coal mining	Iron and Steel	<u>Railways</u>	<u>Wool</u>
<u>Copper</u>	Iron Mining	<u>Roads</u>	

The following are also extensive sources covering many of the industries mentioned here -

J D Marshall & M Davies-Shiel, *Industrial Archaeology of the Lake Counties,* Newton Abbot, 1969 David & Charles. Kelly's Directory of Westmorland, 1906 accessible at

http://specialcollections.le.ac.uk/digital/collection/p16445coll4/id/42445/rec/1

T. Bulmer Directory of Cumberland *History, Topography, and Directory of Cumberland,* [1901] accessible at http://specialcollections.le.ac.uk/digital/collection/p16445coll4/id/88003/rec/8

Visit Cumbria, https://www.visitcumbria.com/history/

A Cameron (ed),*Lakeland's mining heritage: the last 500 years,* Cumbria Amenity Trust Mining History Society; 1st Ed. edition (2000).

Grace's Guide online at https://www.gracesguide.co.uk/

Oliver Wood, West Cumberland Coal 1600–1982 (Cumberland and Westmorland Antiquarian and Archaeological Society, 1988).

This Masters thesis,]Durham University], Loebl, Herbert (1978) *Government-financed factories and the establishment of industries by refugees in the special area of the North of England 1937 – 1961 –* gives an extensive analysis of the origins of many West Cumberland businesses, with special government support to tackle the problems of unemployment and the need to help the many European refugees arriving in the country. The thesis can be downloaded from http://etheses.dur.ac.uk/10025/

There are also many other books written covering individual industries – a bibliography may be compiled soon.

REFERENCES

1. Cumbria Observatory (data from County Council sourced from Office of National Statistics) at https://www.cumbriaobservatory.org.uk/economy-employment/ accessed 30 Nov 2019

2. James Wilson (ed), The Victoria History of the county of Cumberland: Vol.II, 1905, Archibald Constable

3. William Farrer and J Brownbill (ed), A History of the County of Lancaster: Volume 8, 1914 London, 1914, British History Online at http://www.british-history.ac.uk/vch/lancs/vol8/xv-xviii [accessed 2 December 2019].

4. Durham Mining Museum at http://www.dmm.org.uk/lom/index.htm ... includes the Cumberland coalfield.

5. Ships built at Barrow at https://en.wikipedia.org/wiki/List_of_ships_and_submarines_built_in_Barrow-in-Furness

6 .Census data available at http://www.histpop.org/ohpr/servlet/Show?page=Home (University of Essex)

7. Shap quarries at https://www.armstrongsgroup.com/our-quarries/shap/

8. See article on Leisure & Tourism in the 'About County' section of this database.

9. In 2014, plans were announced to mine the coal under the sea near to Haig Colliery again. West Cumbria Mining have proposed plans to start mining for the coal which will be used to provide coking coal. Chief engineer on the project, Mark Kirkbride, said that most coal projects in Britain involve low-thermal power station coal, whereas 40,000,000 tonnes (39,000,000 long tons; 44,000,000 short tons) of coking coal is imported into Europe from North America, Russia and Australasia every year. The surface part of the mine would be located on the former Marchon Chemical works and would utilize abandoned drift shafts from Sandwith Anhydrite mine to access coal reserves south-west of the Haig site underneath St Bees Head. Whilst there are some modest estimates about possible reserves, a note in the Haig Colliery Mining Museum stated that there is the possibility of the mine supplying 1,000,000 tonnes (980,000 long tons; 1,100,000 short tons) per year for the next 800 years. The proposed name for the new venture is Woodhouse Colliery. In March 2018, further plans were unveiled which involved most of the product being exported by freight trains. This would involve the use of a conveyor to a railhead on the Cumbrian Coast Line then being railed to either Redcar (for export) or Scunthorpe and Port Talbot Steelworks for domestic steel production. Mining is expected to begin in 2020 with full production in 2023. [
http://www.westcumbriamining.com/] There are vocal opponents against extracting coal again but the question of how to build the many wind turbines planned without making steel is not answered.

10. Established by a Maryport man, Burton Dunglinson in London, bringing factory north to help with unemployment. Left a large portion of his fortune to a Mary Grave Trust (£1.5M by 21st century) to provide generous grants to allow poor youngsters from West Coast to have some education experience abroad. [Author was a trustee for 40 years 1971-2011]

11. Cumbria Vision: ECONOMIC STRATEGY 2009 – 2019) at

https://www.cumbria.gov.uk/elibrary/Content/Internet/534/576/6304/407851554.pdf accessed 30 Nov 2019

12. Cumbria Observatory (data from County Council sourced from Office of National Statistics) at

https://www.cumbriaobservatory.org.uk/economy-employment/ accessed 30 Nov 2019.