

2. The Workplace Experience of Renfrewshire Miners

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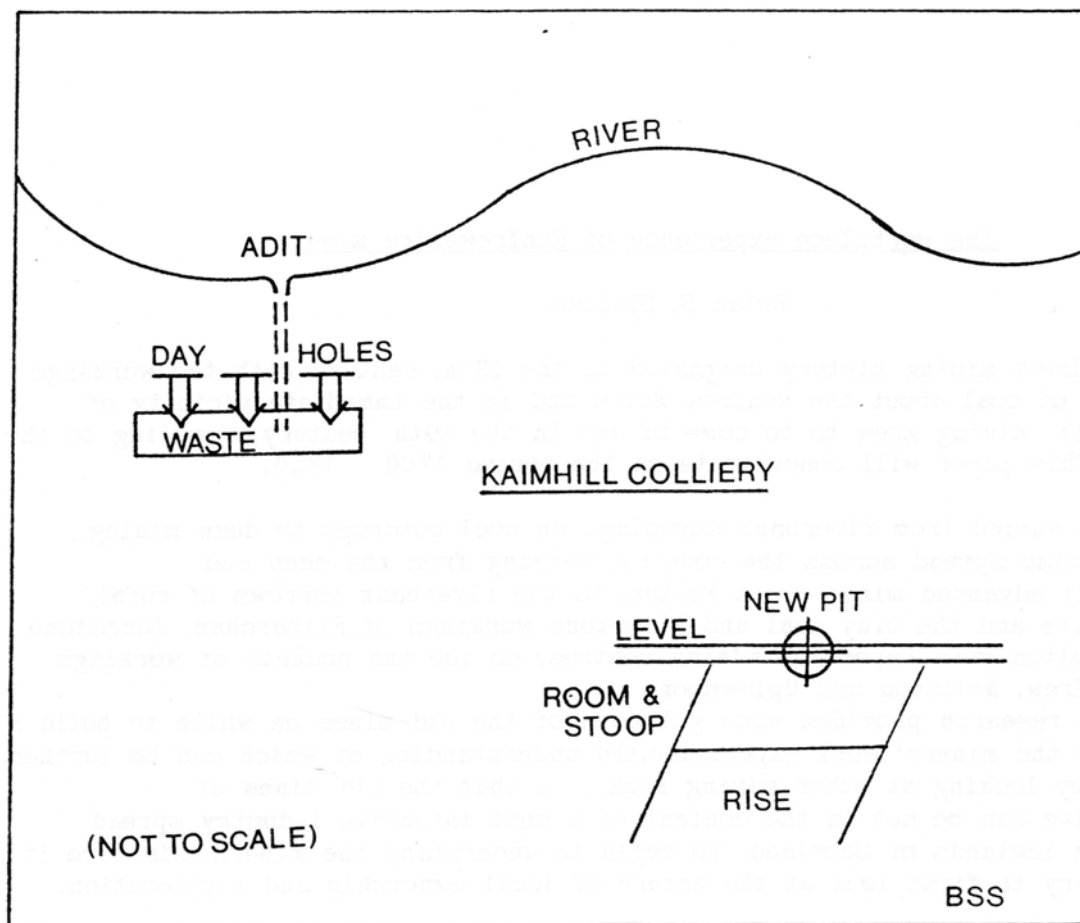
Renfrewshire's mining history originated in the 13th century with the workings of scraps of coal about the Renfrew muirs and in the immediate vicinity of Paisley.(1) Mining grew to come of age in the 19th century, crumbling to the present. This paper will concentrate on the period 1700 - 1800.

Collieries varied from riverbank scrapings on coal outcrops to deep mining. Mining became spread across the country, varying from the deep and technically advanced mines about Pollok, to the riverbank burrows of rural Renfrewshire and the tiny coal and limestone workings of Kilbarchan. Johnstone and Quarrelton were important mining centres, so too the pockets of workings about Renfrew, Neilston and Uplawmoor.

Historical research provides some glimpses of the old mines on which to build a picture of the miners' work experience, the understanding of which can be further enhanced by looking at other mining areas, so that the old mines of Renfrewshire can be set in the context of a once intensive industry spread across the lowlands of Scotland. To begin to understand the miners' existence it is necessary to first look at the nature of local ownership and exploitation.

Mining developed as needs directed, answering domestic, agricultural and industrial needs, and whilst concentrating mainly on coal and limestone extraction, the chemical industry was supplied with alum shales from Hurlet. Shale was also exploited for the embryo shale oil industry about Clippens in the closing years of mining.

Ownership of the mines varied, with a mixture of landed gentry and merchants. Cunningham of Craighends, Houston of Johnstone and Maxwell of Pollok were in the primordial role as owner occupiers. Maxwell of Pollok invested heavily with a group of merchants to form the Bellahouston & Dumbreck Coal Company, (2) a powerful combine of interests which had a marked influence on estate infrastructure, especially in local roadbuilding.(3) Such co-partneries were typical, often bridging the gap between mining and other industries, as with Wilson's and MacIntosh's mining and chemical partnership about Hurlet. (4) Individuals investing in mining included William Hume, a Paisley wright, who wrought lbrox in the 1780s, and supplied the domestic and industrial market about Paisley.(5) The need for fuel was reason enough to take an interest in mining for if the middle man could be avoided, then money could be saved and working the coal for yourself was quite worthwhile. Thus William Pagan of the Wester Sugarhouse in Glasgow used the coal wrought from his Cathcart property in his sugar house.(6) The erection of the Cathcart Snuff Mill was due in part to the locally available coal supply, though in the 18th century coal was used principally in the snuff mill's fireplace for drying tobacco.(7) Localizing coal supply was important and other small industrialists like Robert Hay, a bleacher of Netherplace in Mearns, invested in local fuel sources to save money in the necessary trekking of coal from a distance. Hay and his friends were also willing to finance road building to ease distribution of fuel and produce.(8)



Source :

Derived from a sketch plan on the back of papers accompanying Patrick Johnston's survey of Kaimhill 12 April 1828. These papers are within the Cunningham of Craigends Papers, and are deposited in Strathclyde Regional Archives.

Mining contributed significantly to the creation of local economies throughout Renfrewshire. Maxwell of Brediland built his estate around the easily, worked clays, coal and stone of his neighbourhood and had a door-step market with a fireclay brickworks and the Brediland pottery, producing cane, lustre and brown ware. Coal was used to calcine the locally wrought limestone.(9) Such self-contained industrial units became common across the country, a further example being the Arthurlie works, near Neilston, that leased and operated a tiny water-powered mine at Crofthead, some distance upstream of their works as a way of keeping the bleaching industry supplied with coal. It was pumped by a small waterwheel close to the burn (10).This linkage of industrial units, of coalpits and bleachfields was also seen at

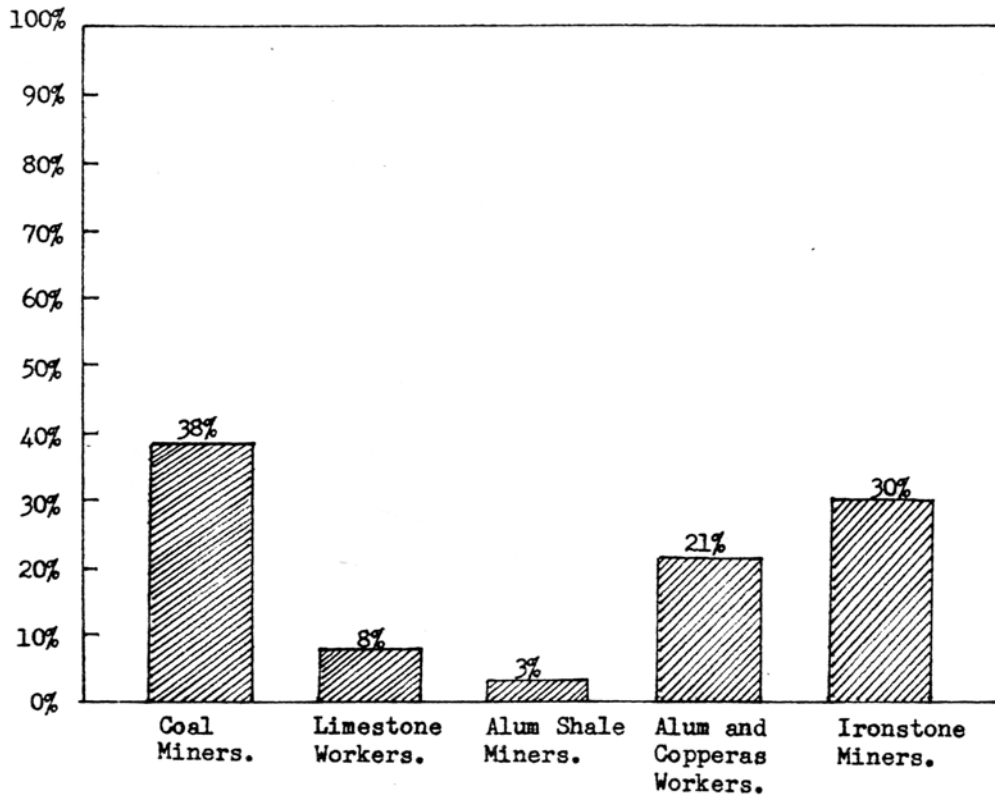
Cathcart and at Uplawmoor(11), similarly with the coal and limestone works across west Renfrewshire. The self-sufficient unit was almost ideal but had one significant drawback for if each small master was working alone there was little incentive to link with others of the ilk. Therefore each small master stood alone to face whatever problems might come his way; there was no county organisation to respond to such difficulties as labour problems. But the immediate result of all this activity was the demand for fuel and consequent on this was a dramatic rise in the number of coal pits and hence the need for labour with which to work them. Perhaps the Arthurlie Works used a few labourers from the mill to work out scraps of coal as needed but with the division of labour and work specialisation, then the demand for miners increased.

Though serfdom was basically extinct from the 14th century in Scotland, various forms of bondage were employed to limit the free movement of the workforce. It was not a principle of Scottish law that a workman should be forced into one employment for life. Equally it was not a principle of the Scottish colliery-owners that they should see their financial returns from investment lowered as free movement tended to create higher wage rates and hence drain the owners' income. Higher wages had necessarily to be given where in a mobile labour market more prosperous collieries could filch labour from their less well off neighbours with lucrative wage agreements. At least in the east, the custom was the imposition of serfdom on miners from 1606, but it never quite worked out that way in the west. The political power of the mineral masters was less than their aristocratic eastern counterparts. Landowner proprietors did not have the clout, neither did the early co-partneries of merchants nor the local legal structure, hence the restraint on miners in the west was never as severe as in the east. The lack of legal control on the mining population can be demonstrated in the general difficulties experienced by many coal masters in getting their men to work. Thomas Kennedy of Pennel, who worked coal and limestone at Boghouse, Kilbarchan in 1713 suffered much from the vicious rivalry of local miners; local evidence suggests more time was spent intimidating rivals than working.(12)

The miners felt little of the bondage that restricted the freedom of so many Scottish miners. The defiance of men to their masters is also shown in contemporary correspondence. A letter from John Smith of Paisley's Gallowgreen colliery to Houston of Johnstone reflected his failure to retain an effective labour force. Smith could do little when his miners left him in the lurch except beg for the loan of men from Houston's colliery. Miners would appear to have enjoyed some freedom of dissent.(13) The degree of servitude was related to the size of the mines, the necessity of constant labour supply and whether women and children were employed. The levels and limits of some workings were so very restricted as to be one man undertakings. Kilbarchan probably had this form of exploitation, where demands for bringing in the harvest would also have restricted mining opportunity. The labour demands of large collieries were much more specific, necessitating the employment of women, where each miner had to provide his own bearers, as often as not his own wife and children. The Jordanhill Colliery on the periphery of Renfrew, employed women from an early date, for there is the story of three women being killed below ground in the 17th century. The discovery of old workings in the 19th century revealed the passage of barefoot women by their prints in the mud.(14) The

shallow workings of Quarrelton also employed women and children with a labour force of about 60 persons.(15) Bondage became complete where the whole family as wage earners were dependent on the mine for a livelihood.

Messrs Wilson & Sons' Employee Utilisation Pattern at Hurllet and Nitshill, c1835.



Messrs Wilson & Sons' employed:

144	Coal Miners and Workers at Haugh Coal Pit.
29	Lime Burners and Limestone Workers.
10	Alum Shale Miners.
81	Alum and Copperas Workers at Hurllet and Nitshill.
116	Ironstone Miners at Hurllet.
380 = 100%	total number of employees.

Note.

Alum preparation was labour intensive by nature of the work.

Source:

New Statistical Account Vol.7. "Renfrewshire" p.158. 1845.

Newspapers provide clues to the work experience, accidents then providing as effective copy 200 years ago as they do today. The investigative journalism gave horrifying insights into every day working conditions, never revealed in the company business books and seldom before the Court of Session. Accidents give clear clues to the nature of the working environment. Statistical returns for the period 1740-1860, delved from newspapers, identify the principal cause of accidents as mishaps within the shaft. 50% of identifiable accidents were locally due to this cause. This suggests that much mining was pursued just within the threshold of technical ability; it also suggests a large degree of carelessness. 24% of accidents for the same period were due to strata falls, the highest incidence being when mining was in the friable geological conditions about rockhead in the 18th century. Carboniferous sandstone was doubtful in its loadbearing ability, and limestone was little better. 10% of accidents were due to flooding out of the pit workings from the breaching of old wastes, though there were some exceptions, notably Lochlibo. Floodings were most common in the later period of mining where many areas enjoyed secondary working, without a thought to primary locations. Miners proceeded blindly and though, like moles, they could know all the turnings and winding of their own work, lack of mine plans meant disaster could come suddenly from unknown and ancient workings. Reliable colliery plans were a little known luxury until the late 19th century. 16% of accidents were due to explosions directly attributable to the geological nature of the fiery Hurllet seam.

Dividing the period 1740-1860 in three equal parts reveals that 34% of accidents occurred between 1740-1779; 22% of accidents between 1780-1819; 44% of accidents between 1820-1859. Statistics show a pattern of early primitive workings on the threshold of technical ability; a middle period of consolidation, then a later period of capitalization to meet rising demand that in turn almost outstripped technical ability and even competence:

"...no matter about the lives of five or six men. if we can save £50 a year on a blockhead of a manager, and another £50 or £100 through his harshness, certainly not by his assiduity."(16).

The miners' working environment was therefore governed by local geological factors, workplace conditions, managerial competence and response to market forces. Accidents also provide clues to the proximity of local industries, as at Cathcart, where sheets from a neighbouring bleachfield were tied together in a vain attempt to rescue a young woman fallen down a pit in May 1796. (17). Pits were common traps for the unwary and were a reason for the high incidence of shaft accidents in the coal mining areas.

George Baker's poem 'Miners above ground', though of a different time and place has as its first line:

"Dead men and miners go underground..."
That says little for the work experience, shared with the dead for
"..deeper and darker than a black burial, they both go down into the dirt."(18)

Such an experience can be visualised from contemporary observation. Pit access was gained via day level or by shaft, by mechanical or physical means. Stair pits and ladder-ways were the earliest form of shaft access. Later simple large buckets tied to a flat rope or chain were used; the so-called "Kettle" evolved into simple pit cages. In evidence to the Childrens' Employment Commission, Thomas Tancreed described the cage at Knightswood in the 1840s:

"The one I went down in was formed at the bottom of a frame of wood, through the side of which bars were inserted, in the middle of their length, two iron pins with eyes to hook on to the chain which is double at the end and secured in the wood by pins. The four sides were wattled hazel: I should consider them hardly safe, but they are the most common; some only have a single hook and eye. "(19)

Riding these cages, it was necessary to hold on and to keep very steady with good reason.

"... rapid descent induces in the inexperienced a sensation as if your breath were pumped out of you; a feeling of giddiness is the result."(20)

That feeling would have worn off as pressure increased towards the bottom of the shaft. Light would have dwindled and the pervading impression of intense gloom would have been heightened by smoke from the ventilation furnace and the black dripping shaft walls eating up any remaining light. Pit bottom would have been marked with the sound of voices and a sudden arrival:

"Instantly we landed at the bottom, where a lot of lads standing by the shaft furnace, seeing strangers in the cage, gave them a rough cheer having the character of a wild discordant yell of welcome..."(21)

Impressions would have been of an intense cold wind that would have made the lamp flames flutter strangely. This wind would have been kept going with the aid of the furnace, drawing it through the workings from outside via the downcast shaft and whipping it back out the upcast shaft. An elaborate form of doors and guides was used to course the air and hopefully clear the mine of the many dangerous gases. There were other equally unpleasant gases; stables were often adjacent or near the downcast shaft and the effluvia was whirred round on the air current. Decomposed animal and human faecal waste matter presented a major problem in the working of early mines.(22)

Work faces were connected to shaft bottom by long underground roads. Drawing formerly done by women and children often fell to horses and so-called "stout boys" in the latter period of mining, working hutches through the elaborate room and stoop system of the mine.

Contemporary accounts suggest that good roads were seldom got, and ill laid rails when used had a constant tendency to throw the hutches off. The loss of a single hour out of a day's work could entail a deficiency in daily output of from 25 to 40 tons

of coal. Running hutches through the mine also led to many accidents on badly laid track or a bad floor; a 9 year old was killed at Cowglen in April 1835, when he ran his hutch into a hole. The sudden stop tipped the hutch and catapulted the boy over its top, smashing him against a pillar of coal.(23) The work of drawing was generally hampered by mud and water on the passageway floor. Passages were sinuous, unequal in cross section and also low and narrow creepy heughes in every way, that visitors might only be taken through in hutches, on their hands and knees in the basin of the wagon and told to keep their heads down, or else. A common form of progress in the "creeps", sometime compared to common sewers; was using short walking sticks and progress was made in a gait almost on all fours. Sticks were probably the only means to avoid slipping and falling in the running water and mud and filth of the passage throughout the working.(24).

Working rooms would have been to right and left of the main passage, either room and stoop or longwall, the former being more common in Renfrewshire, and impressions in the working room might well have been thus:

"...away in underneath a ledge of false coal we saw a bundle of tatters lying horizontally on the ground, with a little oil lamp at one end of it.. plying a pick against a most stubborn piece of mineral wedged up in a corner. Further on top we saw two legs, bare from the knees to the top of laced Bluchers [strong leather half boots], sticking out in the mud amongst which we were wading, while the head and shoulders were underneath a rock In search of coal.. ."(25)

The work faces were seldom lighted and ventilation was poor off the major air route, even with face coursing:

"The atmosphere of this spot was loaded with minute coal dust flying about, which is inhaled in the breathing. We sat for nearly an hour In the place, and for days after found the spit blackened from this cause."(26)

The almost constant sound of settling and creaking within the weakened strata would have accompanied the picking sounds, a work rhythm day in day out alleviated only by the promise of a wage, and a rhythm which bred a dangerous contempt for the work place, only occasionally alerted by the sudden crash of falling strata.

Wages were based primarily on output; the estate papers of William Cunningham of Craighends provide interesting but incomplete financial returns for his colliery during late 1754. These show the pay and productivity of a group of 3 miners employed by him and show that, for a small mine, wages were a significant cost in its economy.

The returns cover from 26th November 1764 to 17th December 1764, over which time the total wages of the three miners was £4 1s 2d or 6/9d. average on output per week. The total number of loads was 443 or an average of 37 loads, the actual measure in *avoir du poids* is not stated. Estate accounts separate the wages paid to the miners from those taking out coal suggesting that the latter was contracted on an occasional basis, perhaps one day a month. It is also notable that the cost of lighting

the working was second only to wages in the working of this tiny colliery.(27) Hamilton states that the Scottish average daily wage of the miner about 1765 was 2/6d. or almost 15/- per week, presuming a six day week was worked. These local miners were comparatively poorly paid, though there was considerable deviation at local level. However, in comparison to the average 6d. or 8d. earned by a day labourer, the Craigend men were well off.(28) However, in providing just a glimpse of wages it must be stated that miners' wages were little better many years later, when the Arthurlie Coal Company of Barrhead offered its miners 4/6d. per day The Company almost boasted of this when it advertised for labour in 1846, it also mentioned that its pit was free from fire damp, a recognition of miners' general concern about the rising number of accidents both from this and other causes.(29)

Methane gas explosions began to feature about the general area of Glasgow from the middle of the 18th century. Why Renfrewshire had such major problems may be accounted for by less than adequate ventilation on fiery seams which were seldom continuously wrought across a whole mining area. Simply there were always areas in the mines where ventilation was stagnating to danger levels. The Renfrew Colliery suffered a major explosion on 5th September 1804. The colliery had been out of use for some time and an inspection party of four, which included the colliery proprietor, was caught in an explosion some distance underground. They were fortunate for although bruised and suffering flashburns, all escaped serious injury.(30) Less fortunate were the victims of the Hurlet disaster of Monday 22nd April 1805, when 17 were killed in a particularly vicious explosion that wrecked the colliery and shut it down for many days. Indeed it was two days before all the bodies were got out and an initial rescue had ended fatally with the general failure of ventilation after the explosion. But mining had to go on and the proprietor Wilson was soon advertising for new men and contractors for the pit.(31)

Quarrelton and Johnstone both suffered regular and major fires underground from spontaneous ignition of the inflammable seams. Generally without fatality they did though cause problems. Low ground on the north side of the Beith Road was attributable to a fire which had burnt out the pillars and caused a sit or subsidence. Johnstone was well alight over areas of waste workings by 1808, a fire which could not be controlled by the usual expedient of closing the shaft to block out the air in an effort to control the burning area. It was sealed round by walls placed between the support pillars of the room and stoop system. The walls were made airtight by a thick coating of lime plaster and the fire was for that time successfully contained. Fires were an age old problem for Semple commented of:

“seeing smoke rising out of one of the old waste pits, the coal having taken fire below...”(32)

Methane gas explosions and fires plagued the Johnstone mining area throughout its long existence. Yet the colliery had one of the earliest ventilation fans of which there is record. It was circular with vanes working horizontally inside a casing, which was fitted air tight over the pit mouth and hand-worked. Its effect extended 3/4 of a mile. Part of the workings when it was tried were burning and the fan was strong enough

to draw flames and heated air towards it with such effect that men were able to get behind the drawing air and erect a barrier wall to contain the fire. The colliery was also free of carbon monoxide.(33)

Nitshill featured as a killing ground from the 1830s, with a major explosion at Doves Colliery on 19 August 1832, killing 4 and injuring 3. This tragic accident was due to middle management pig headedness, for the overseer would not believe the men that there was gas in the workings, believing they wished the day off as it was Reform Jubilee Day in Barrhead, and thus for most a local holiday. Rennie forced them to go with him into the pit and full of bravado carried a normal lamp. The resulting explosion brought local villagers running and the dead and survivors were pulled clear. Rennie and two others lay dead on the turf. Abraham Thomson one of the injured was carried home and put to bed, a lamp knocked over on him as he lay there burnt him again, this time to death.(34) Nitshill's horrors did not stop there, culminating in the 1851 disaster which did more to waken management and the populace generally to the state of the miners' workplace, than any other accident to that time.

The first warning of the explosion of 15th March 1851, came with a sudden rush of air through the workings, there were 63 in the mine of whom all but 2 died in the next few minutes.

Messrs Coates' colliery was known to be fiery and precautions had been taken to brattice work areas and to put up deal stoppings to channel air to the faces. Messrs Coates were proud of their mine, confident in the ventilation and happy that a model be made for the Great Exhibition of 1851 to show just how good they were. Confidence bred contempt and with cold weather, they put out their ventilation furnace to save on fuel. They had therefore chosen to rely on natural air current, which in theory was adequate to feed the working faces. But it did not cover 70 acres of waste, where methane gas very soon built up. This filtered into the impaired air feed of the pit and, as the pit was not subdivided fully, it was only a matter of time before methane gas wafted to working areas and ignited on the miners' lamps. The cause of the accident was well summarised in Cayley's evidence to The Select Committee on accidents in coal mines (30 June 1853):

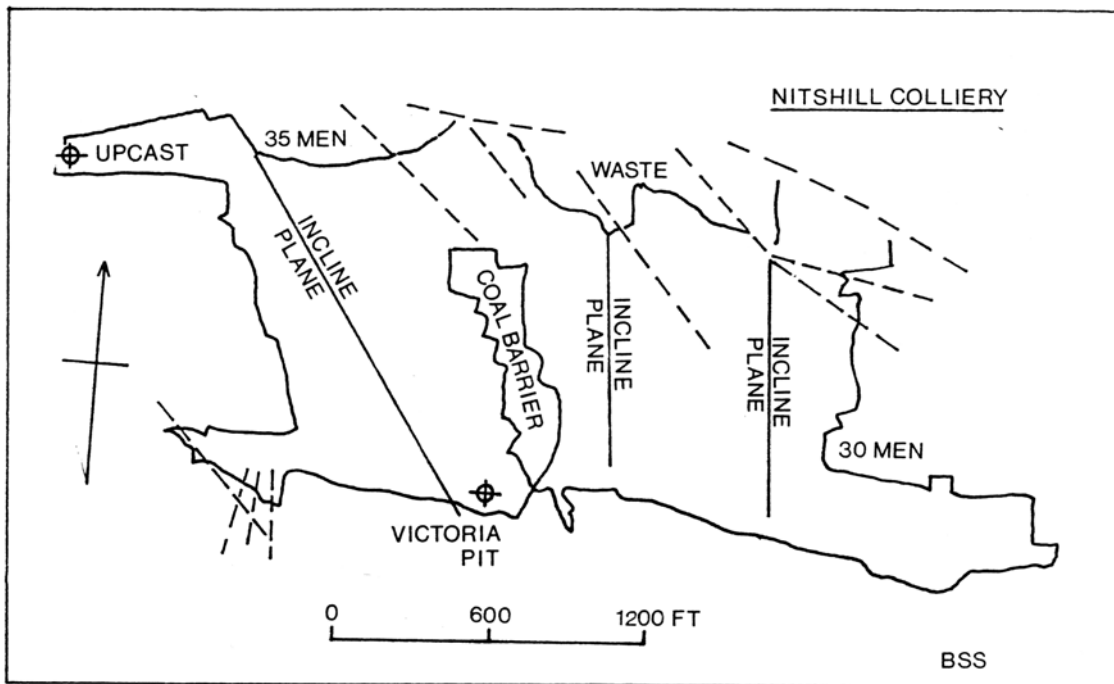
"They trusted it to the winds of Heaven; there was no artificial system.
They had not had the furnace in for 3 months."

Quite simply over confidence brought complete disaster.(35)

In the wake of the disaster a performance was held at the old Theatre Royal in Glasgow. The highlight was "Guy Mannering" and the "Daughter of the Regiment" the part of Maria being played by the populace's pet, Miss Isaacs. This performance was probably one of the earliest benefit shows for a disaster.(36)

The tides of disaster also came with floods flashing through the workings taking all before them. Quarrelton was flooded out on 2nd May 1818 when water broke through from old workings, drowning 5 out of 7 men and boys; the two who were

rescued were got after 12 days, indeed almost back from the dead, the last of whom could not be got till 4th June.(37) In October 1860 a similar scenario killed another 5 men. It is notable that one of the rescuers, Alexander Aitken, was a son of member of the 1818 rescue team, and like his father had shown exceptional bravery in bringing men out along levels where the water was within 3 inches of the roof.(38)



Source :

Derived from a lithograph plan of Nitshill Colliery, produced by John Storey, lithographer, in the wake of the disaster. This plan shows underground inclined planes, the shafts, fault lines that are here shown with dotted lines, and lastly the number of working men below ground.

That both father and son were involved in separate rescues at 42 years apart points at the long associations that mining families might have with particular collieries. Presuming that mining ceased till the wastes and workings were drained, this suggests that no operations were possible even to the rise of workings, which must have been a financial strain for small colliery workings.

Similarly, the disaster at the Lochlibo Colliery, in 1792, was due to water but from a different source, where mining through weak ground following a coal seam at shallow depth below the loch brought the water in on the workings. On 29th March 1792, a total of 7 people, including some sightseers, were down the mine, when all were drowned as water flashed through the workings when the loch waters breached

the weakened roof strata. It is hard to believe there was no initial sign of impending doom, from, for example, increased water percolation, and the pit working was clearly beyond the threshold of caution, pointing clearly to how demand overweighed judgement. Popular reaction to the disaster was of considerable interest, for a total of £16 1s. 8 1/2d was collected, in what was then a very poor parish, for the bereaved families.(39) The workings were a total failure and the weakened parish economy must have been badly shaken. The local mining to the lochside could not be pursued due to the low level of pumping technology. Technical ability only allowed the water to be cleared from this area in a second working of the site in the 19th century.

Lochlibo worked successfully for many years in the 19th century. The access point to the secondary workings below the loch was from a new deep shaft on the lochside toward Shilford Mill. It was fitted with a powerful pumping engine which is illustrated in Charles Taylor's *Levern Delineated* of 1831. Pit workings on the side of Lochlibo seem to have continued especially toward Lugton Mure's Caldwell estate. These pits were too close to the lochside, and water movement once again breached the weak strata and flooded out the workings on 3rd July 1833, this time without fatality but with the loss of 80 jobs and a body blow to the local economy.(40)

The Lochlibo Coal Company then turned its attention to the woods about Uplawmoor, where operations became so intense that a horse gin was replaced with a steam winder. It seems that it then proved possible to finance further investigations along the seam dip and below the loch. A powerful pumping engine was used to drain the workings flooded in 1792 and the breach was sealed in 1843. Once the waters had been totally drained, miners went on to clear out the old workings. A skeleton was recovered from the pit on 9th September 1843 and interred later at Neilston, a blunt reminder of the original disaster.(41)

The real interest of this account is how the new found technology of the 19th century enabled miners to cross the threshold of depth, technology and danger, which had been denied them before 1830. Mining science was nothing but perception of the problems to be overcome. In December 1844 an old woman was killed whilst collecting a few coals about the pit for her fire; she was knocked to her death down one of the shafts at Quarrelton by the pit "kettle".(42) Both her husband and son had been killed at the colliery in previous years. The advancement of science really meant very little to the mining families tied to the pits by the capitalistic demands of the 19th century. Bondage remained complete, humourless in its violence; the economy of Renfrewshire, and Scotland as a whole, owed much to the miners producing the fuel on which economic advance proved possible. The industrial Revolution was built squarely on their shoulders, appreciation of which is all too easily forgotten today. Squarely on the shoulders of the mining boy, met on a road near Glasgow:

"The wind blew open his rough coat, and the poor boy was seen to be without a shirt, and his skin was exposed to the weather

"Don't you get cold?"

"No", he replied "it's warm enough below."

There was no smile registered on that sad countenance - it was evident that the boy of 14 was killed within him... subdued him early to a mere drudge.”(43)

There was nothing romantic about coal mining even if it did produce the collier poet David Wingate. Born 4th January 1828 in Cowglen Colliery Village, he lost his father in 1833, killed in a methane gas explosion at Cowglen. Wingate himself went down as a pit boy at the age of 9 years and eventually worked his way up to a managerial role at Craigneuk, later at Garscadden, Cambuslang, Omoa, and Tollcross where he died in 1892. But such men were the exception in the wearisome toil of the pit. Indeed Wingate stood almost unique amongst miners in crossing class boundaries and being accepted by those who more normally feared and loathed the miners.

Popular prejudice was seen in the perception of labour troubles about Barrhead in the 1830s. On 4th March 1837 there was serious rioting in Barrhead, following fights between striking miners and blackleg workers normally weavers and textile workers, in which 4 persons were injured. What is interesting is the popular reaction to what turned out to be a totally unrelated incident and that was the finding of a dead man down an old shaft close to where the riots had taken place. The cries of murder and calls for justice against the miners eventually met with the admission that the dead man was an habitual drunkard, who had probably fallen to his death in a drunken foray.(44) The social experience of scapegoating the miners continues to this day. This brief glimpse of the political life of the miner can be concluded in the bleak reality that most political action collapsed in defeat in the face of economic necessity of earning enough for food, clothing and lodging. Social advance, when it did come, came from two quarters. The masters' involvement was economic rather than paternalistic in concept. Miners were obviously required and feudal restrictions were no attraction to them, hence their emancipation. Pariahship weakened further from an unexpected source and that was the women in the mining community.

Firstly, intermarriage was common in the close-knit pit villages to the mid 19th century, when it became more common for men to take girls from outside the immediate community. This was the means whereby new Ideas on the domestic front were introduced and tenuous links built to the textiles and weaving communities, often the miners' age-old enemies. It might have been called the Romeo and Juliet syndrome, which opened up the wider aspects of community living. This would have been further enhanced as miners' daughters turned to domestic or mill work, once their employment was banned below ground.

The employment of women below ground brings up several points, firstly that the female miner in trousers typified the great divide in class images of women. Many women felt at home, working in what was perceived as a man's occupation, wearing trousers rather than skirts or crinolines. They would have felt some freedom of expression and a means of sharing personal identity rather than existing in society's perception of good womanhood. Cross-dressing was an expression of self, hence the Fermanagh woman Ann Lloyd who worked disguised in male attire in the districts about Glasgow, was not to be wondered at, though the Glasgow Saturday Post expressed its shock under the headlines of “A female miner in Gorbals.”(45) Wynne,

the Inspector of the Shropshire district, suggested that women at the pit head found more reward than their agricultural counterparts. They were certainly better paid. Wynne thought little of the proposals to stop women working about the colliery, and suggested their withdrawal would see a rise in the cost of labour. The men to replace them would have got higher wages, a concern which was probably the reason for the Paisley Daily Express picking up this news item. Certainly there would have been an economic impact and Wynne felt it....

“Ought to affect the philanthropists as much as the smutty appearance of the bankswomen ...”(48)

The miners' position in society remained subject to the economic morals of society as a whole. Age old suspicions and folk myths probably lingered longer than much of Renfrewshire's mining, worked to extinction in this century. Final interest in the Johnstone area was shown just before World War 1 when the Fife Coal Company undertook borings about Millikenpark and Howwood: workable coal was found, but the war precluded further trials.(47) Land use changes also stopped further exploitation as land values exceeded the expected profits from a few remaining scraps of coal. So dramatic were land use changes that specialised detective work is necessary even to tell the story of local mining. The collieries were swept away, their bings razed and often used in roadmaking and also in railway ballasting, in fact quite disastrously for the chemical bings of alum waste and small coals were used to ballast the Barrhead line, but the ballast rotted the sleepers, and all had to be replaced. But to finish on perhaps the strangest story of all, that comes from the Mearns in the 18th century. There old wastes were used for dumping rabid cattle, which were walked to the pit, slaughtered and then thrown down.(48) As a response to a serious environmental hazard there are some parallels to the present day burying of pollutants; the dustbin economy certainly never changed.

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Comes reference to a major explosion that killed 6 and burnt out the pit at Renfrew. The pit burned for two days and it was several days before the bodies could be got out, and two days before they could cover the shaft.

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The British Geological Survey.

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