

Lead Mines of Luganure and Glendalough

(This research was commissioned in 1995 by the Office of Public Works (OPW) Heritage Centre in Glendalough. The original is held in the visitors' centre but when I found this copy during 2019 attic renovations, I decided to put it online so that it can gain more widespread audience. I have not updated the research due to other commitments but have integrated some later research.

There has been some re-arranging, editing and silent correction of obvious spelling and grammatical errors in the original, a result of using a manual typewriter. Endnotes have been transferred to footnotes or integrated into the text with a few more added to clarify the text for a wider audience.

The report has three sections, history of the mines, history of the miners, and many new appendices)

History of the Mines

Introduction

According to Medieval Alchemists the Father of metals was lead. This is borne out by the archaeological record as due to its low melting point it was one of the first metals to be exploited, mostly from surface lodes. One of the earliest examples comes from Catal Huyuk on the Konya Plain in S.E. Anatolia when a lead necklace was found dating from 8,000 B.C. In Egypt, around 5,000 B.C. it was used for weights, coinage, solder and pottery glaze; red lead was used as a cosmetic. Lead was also used c. 3,800 B.C. for a figure in the Temple of Osiris at Abydos, Egypt. Lead was found in the Cycladic islands and three lead model boats were found on Naxos dating 2,800 B.C., both in the Aegean Sea. Around 2,000 B.C. the Phoenicians were mining lead in Spain and around the same time the Chinese introduced it as coinage. There is also a metaphorical reference to the metal in the Hebrew Bible when, in the Book of Exodus, the Pharaoh's boat 'sunk as lead'.

During the Industrial Revolution of the first millennium B.C. metals were mined and refined in large quantities. For instance in the Bay of Naples area 10,000 tons of iron and copper were processed annually. The processing was inefficient as Mussolini recycled the slag for iron during the 2nd World War. In Lauron (20 miles south of Athens) there was a major silver and lead mine that was the basis of Athenian wealth. Around 500-300 B.C. it is estimated the 3,500 tons of silver and 1½ million tons of lead were extracted. Such was the scale of reeving that ice cores in the Antarctic have traces of lead pollution. The silver content was as high as 3%. It is estimated that approximately 3,000 slaves (*andrapoda* = human cattle) worked on 24 hour shifts which is about the same as the population of Free Citizens in the city.

There were c. 3,000 shafts that went as deep as 300 feet¹. They excavated about 24 feet a month by the light of olive oil lamps. The mortality rate was probably awful with a high turnover; one owner is thought to have had 1,000 slaves. In the Battle of Eutymedon, 479 B.C. 20,000 prisoners were captured for slavery. Given the times anyone could end up as a slave and in Athens itself no family has been traced for more than three generations. Lead was used for weight standards, catapult missiles and cladding for merchant shipping. Lead usage expanded considerably from the Roman era to the present.²

While there might have been early use of lead in Ireland, one of the first finds is in the late Bronze Age when it was used with copper to make a bronze alloy in sword manufacture, probably c. 500 B.C. A lead bead was found in Lagore crannog but this could be Early Christian³. Given the tradition of Co Wicklow being a site for copper extraction it is possible that surface lead was used from the Glendalough area, but later mining would have destroyed the evidence. The Monastic City of Glendalough developed from the 7th century onwards and it is possible that they used lead though there is no evidence for it. I have been told⁴ that lead has been found on one of the windows but I have not yet found this; this could be related to the 19th century renovations of the City complex under William Wilde when it is known that Glendalough miners assisted. Iron workings have been discovered during the excavations for the OPW car park but were not put into a datable context.⁵ These could be related to the 17th century exploitation of oak woods for charcoal making as Furnace in Knockrath townland is referred to in a 1677 lease as “the iron works lately erected there”⁶.

It appears that the knowledge of lead in Glenmalure was unknown in the 15th and 16th centuries as the O’Byrnes of Glenmalure, in their raids in the Pale, stripped lead from the roofs of churches and other buildings presumably to make lead shot⁷.

The first Modern Mines in Wicklow

Sometime after 1700 copper mining began in Avoca⁸ and in the latter part of the century lead mining commenced in Glenmalure. It is probable that exploration in the Glendalough area originated in Avoca. It

¹ One foot = 0.3 of a metre, i.e. 300 feet = 90 metres & 24 feet = 7.2 metres

² *Encyclopedia Britannica* and *The Birth of Europe*, Michael Andrews, 1991 (the original report had ‘Making’ instead of ‘Birth’, which is a completely different book)

³ *Lake Dwellings of Ireland*, W G Wood-Martin, 1886

⁴ Pers. com: Des Cowman. It is worth noting that baptismal fonts made from lead have been found in S.E. England from the late Roman period (2019 fn. Perhaps more recent archaeological excavations have uncovered evidence)

⁵ Conleth Manning, Excavations in Glendalough, *JJKAS*, 1983-4

⁶ Liam Price, *Place Names of Co. Wicklow*, various dates

⁷ I came to this conclusion subsequently in the late 1990s while studying history in TCD

⁸ Des Cowman, The Mining Community of Avoca, *Wicklow History and Society*, ed. K Hannigan & W Nolan, 1994

is known that lead was first mined in Luganure and Carrigeenduff in the last two decades of the 1700s but it is unknown by whom, possibly the developers of Glenmalure⁹

According to Wakefield¹⁰, mining works were being developed in Glendalough with a smelter. This almost certainly incorrect for three reasons: firstly, there are no archaeological remains of a smelter or associated works, secondly there are no references on the first edition of the Ordnance Survey 6" maps of 1837, and thirdly the landlord is mentioned as the Earl of Essex who never had any land interests in the area; any leases would have been either from the Church of Ireland or their primary tenants, the Hugo family of Glendalough House. However, his description fits Glenmalure but it is not known how he came to make such an error.¹¹

Thomas Weaver Partnership

Thomas Weaver (1773-1855) is the first known developer of Luganure. English born he studied mining under Professor Abraham Werner in Freiburg in the 1790s. On returning to England he was commissioned to undertake a survey of gold in Co Wicklow for the Government in 1795. In 1807 he started to develop Luganure and in 1809¹² when living in Cronebane, formed a partnership with Rev James Symes, Ballyarthur, and Peter LaTouche, Belview¹³, each holding twenty shares with a total investment of £1,000 to sink mines at Glendalough and Shangeen. Some exploration had probably taken place at Clohoge¹⁴ because of finds in Carrigeenduff.

It is not known how much lead ore was extracted but he does refer to discoveries of great width up to several tons¹⁵. There probably was never any great exploitation due to lack of capital and difficulty of access. After he sold out to the Mining Company of Ireland he went on to conduct geological explorations in Mexico and the U.S.A. He wrote various geological and paleontological articles including the giant Irish deer¹⁶.

⁹ Donald Stewart, Report by Donald Stewart, Itinerant Mineralogist, *Dublin Society Transactions*, 1800

¹⁰ Edward Wakefield, *Statistical Survey of Ireland*, 1811

¹¹ I added "It is repeated in current OPW literature and will hopefully soon be corrected" but have not checked since

¹² Thomas Weaver, Memoir on the Geological relations of the east of Ireland, *Transactions of the Geological Society of London*, vol. 5, 1821, available online by payment of \$35 <https://trn.lyellcollection.org/content/S1-5/1>

¹³ Registry of Deeds, 418398, 4 June 1809

¹⁴ There are small exploration caves in the townland but no mining took place

¹⁵ Weaver op cit.

¹⁶ *Dictionary of National Biography*, 1885-90. He is also likely to have been the First Lieutenant of the Cronebane Corps mentioned by Cowman, fn. 6. See also Wikipedia.

Mining Company of Ireland

In 1824 the Mining Company of Ireland (MCI) was formed by wealthy Irish gentry and merchants for the purpose of developing Irish mines and more importantly to provide sufficient capital for exploration and exploitation. It was a constant problem for small mine developers in that, more often than not, they were undercapitalised and also vulnerable to uncertainties in metal prices in the market which often resulted in bankruptcy. The MCI's policy of investing in various metals meant that if one metal price fell others would help to keep the mine afloat in expectation of rising prices. To fully cover themselves they invested in lead, copper, coal and slate mines and quarries.

In 1825 the mines were bought for £826/4/3 and 798 shares from the Weaver partnership; included in the price was 30 tons of ore and mine materials. In the first shareholders' report¹⁷ they said they had mined a 120 tons at a cost of £2/10/- and sold on for smelting at £4/5/- a ton. It is not known where the smelting took place as Ballycorus was only opened in 1828¹⁸. As the Weaver partnership's mine lease was described as 'informal' the MCI surrendered it and received a formal renewal for 31 years @ £100 p.a. and a conditional annuity of £200. Reuben Binks was their first agent with a salary of £5/9/- pa.

The history of MCI's involvement in the area can be divided into three periods: development, 1825-47, the profitable years, 1847-75, and decline 1875-90. In 1826 a mine road to the Luganure lode was opened up for the carriage of ore and materials which replaced men that had carried both. This allowed the building of dressing floors at the site as well as the laying of a railway in the mine itself for wagons.

Accommodation was built for agents and workmen. The following year a railway had been laid to 126 feet and Hero mine opened to 30 feet. In 1828 New Hero and Brockagh mountain (the latter was probably later called Foxrock) were opened. Further building was carried out when £28/18/- was spent on a new mine house at Luganure.

Richard Griffith who visited the mine around this time gave the management "much credit".¹⁹ Further developments continued with machinery installed for unwatering Hero and additional housing for workmen in 1829. At this time they received a contract from the Wicklow Grand Jury to build a road from Glendalough to the entrance along the bridle track that went over the Wicklow Gap. However, due to Government dropping excise duty in lead imports in 1828 the price of lead dropped from £30 to £16 a ton which discouraged exploitation and exploration for the next few years and a decrease of wages in

¹⁷ Reports were issued twice a year in January and July

¹⁸ Grenville A.J.C., *Memoir and maps of localities of minerals in Ireland*, 1921, gives a useful overview

¹⁹ Richard Griffith, *The Metallic Mines of Leinster*, 1828

1832. From 1834 lead prices remained low which often resulted in annual losses but they maintained faith and kept investing in plant and machinery.

In 1834 due to these problems they renegotiated their lease for 31 years at £92/6/2 rent p.a. After the MCI closed their lead mine at Kildum, Co. Donegal, because of flooding, they transferred the water wheel to Luganure. Wages also rose that year. In 1835 Ruplagh was opened with a pump house and machinery and a further 16 houses for workmen were built. In 1837 £1,000 was spent on a crushing mill at Old Hero and four more houses. The following year a new water wheel was installed that replaced horse power.

Between 1840 and 1846 there is little documentation but Robert Kane reports that Old Luganure and Hero had ceased production which centred in the Ruplagh complex. He stated that ore is raised by hand labour and machinery, as was the dressing, and then taken by cars to Ballycorus for smelting. The machinery was powered by a rivulet sources from Lough Nahanagan. The veins at the head of the Glendalough valley were known by this time but not worked²⁰. The mines continued to be unprofitable as lead was only £3 a ton in 1848. In 1849 the MCI reported that an improvement of prices would admit extensive workings and afford wages to labourers. Part of the problem was that the main shaft of Ruplagh was flooded in 1844 when a drought caused the pumping machinery to fail.²¹

From 1850 their fortunes started to turn for the better and for the next five years, with the improvement of lead prices, small profits were made and rapidly increased. In 1851 old mine workings were re-opened and a new crushing mill erected. From then on extensions and new machinery was invested in and by 1854 profit rose to c. £4,100 exclusive of £4,500 spent on improvements. In 1856 the MCI purchased a further 5,000 acres in the area to prevent claims and liabilities of an onerous character that was paid out of net profits which shows a growth in confidence.

An anonymous publication²² gave a positive report of the mines with one of the first maps showing the main workings, but not anything on surface works in common with all known surviving maps. It refers to the first explorations of the Van Diemen lodes and adits driven into Camaderry from the Glendalough valley. At this time the Luganure deep adit had been driven under the mountain's watershed. This part of the mine was the easiest to work due to natural drainage and ore was extracted on railways with mules drawing three wagons each.

In 1857 there was further expansion with a crushing mill and water wheel built in the Glendalough valley to improve production efficiency. New accommodation and cottages were built for the miner. At this time

²⁰ Robert Kane, *Industrial Resources of Ireland*, 1844

²¹ Grenville, *op. cit.*

²² *Mines of Wicklow*, published by Law of London, 1856

the MCI developed an interest in forestry and planted 150,000 larch and fir trees and by 1867 had planted around a million saplings on 200 acres at a cost of c. £8 an acre and was valued at £10,000 by Lord Powerscourt's forester. While the main motivation was to supply timber for the mines they also wanted to supply the general market.

Now they were raising around 2,000 tons and making £7,000-8,000 p.a. Insufficient housing was now a problem and a new row of houses were built called Fiddler's Row as, according to tradition every house had a fiddler. Meanwhile, in 1860, they took a year lease to explore the Glen of Imaal but this was negative.

An indication of the casual acceptance of their profits at this time is exemplified in 1861 when they announced a £2,661 profit and added that "The operations at Luganure do not call for any special mention...". They planned to add 10-12 cottages a year as they believed that "by promoting the comfort of the people working for us we do a great deal to improve the interest of the company (hear, hear)". This construction gained favourable comment in the *Freemans Journal* which noted that that formerly the place was noted for its "tumble-down cottages that were indistinguishable from the surrounding heather²³".

Underground works were intensely carried out in this decade. By 1859 the Luganure adits connected with the Glendalough valley. This proved to be a major advantage as ore could be processed in in the valley instead of via the awkward path from Luganure to Old Hero and became the main dressing centre for New Hero, Ruplagh, Moll Doyle and Foxrock, which were further developed over the decade.

There was also constant development of dressing techniques. In 1869 new water courses and dam alterations were undertaken to provide a constant water flow for powering machinery. In 1870, Van Diemen (a miner's nickname) was extended with an inclined railway at a cost of £2,300. This crossed over the river and was a major improvement to the previous mule track on the southern side of the Gleanealo River²⁴ and a tramway on the southern side of the valley that was described in 1860 as an "almost perpendicular line, awful to look at – wagons are rattling along at a fearful speed"²⁵. The MCI estimated that carriage would now cost two pence per ton as compared to several shillings by pony.

1870 proved to be the turning point in the fortunes of the mine and the company in general. That year production dropped due to the emigration of the most experienced miners. Presumably this was due to better wages in the UK, USA and Australia but perhaps they saw future failure. The following year

²³ 8th August 1864

²⁴ In 1995 a culvert survived though the path below had almost been completely eroded

²⁵ G.R. Powell, *The Official Railway Handbook of Co Wicklow*, 1860

production was down due to a drought that caused a power failure; stem power was to be investigated. Further losses occurred for the next two years. There was a small pick-up in 1875 and 1876 and the operation was described as “the brightest feather in our cap” to counter some suggestions from shareholders that the mine should be abandoned. In 1876 a new forge was built between Hero and Ruplagh with further economies in dressing machinery that cut labour costs.

From then on the MCI went rapidly downhill. The price of lead had been dropping over the period due to imports from large lead mines worldwide and, at the same time, all enterprises were suffering due to a recession. In 1880 the mine was reported to be at a standstill though this did not stop them from buying the mine outright from the Archbishop of Dublin for £1,200. The following year it was reported that the company had lost £6,351 over the previous six years. The mines had also run out of lead ore and used up most of its reserves; further exploration had yielded little new ore.

Employment fell dramatically which covered all sections. In a bid to save money the mine manager became the travelling officer and, later in 1880, the paymaster, purser and surveyor were made redundant. The shareholders became extremely restive and the complaints of bad management came thick and fast. In 1882, against the wishes of the directors, the shareholders set up a committee to decide if the mine should be abandoned. This committee included some of the main dissidents who claimed that the management were using the recession as a scapegoat for a company that was “honeycombed with inefficiency” and also complained of the constant claim that “there was hope for the future and good prospects”.

In 1883 a new Board of Directors was elected (after a coup d'état?) who, after reporting a £2,545 loss, put in a major cost-cutting programme. However the continuing decline in the price of lead worked against them and the mine and company collapsed²⁶. In 1890 the mine and lands were sold to the Wynne family for £3,364.

The Wynne Family

Albert and Wyndham Wynne, originally from Sligo, were two civil engineers that went to Germany at the end of the Franco-Prussian War (1870-71) to work on the German railway system. They bought the rights of, as yet unknown, mine which was very successful. They then bought a metallurgical works that processed tailings and gold sweepings from jewellers' workshops. After unsuccessful investments in North America and Tunisia they returned to Ireland and purchased Tigroney House²⁷, the mining rights to

²⁶ The name has, however survived, having been bought by another lead business but it never had any records

²⁷ Where they founded Avoca Handweavers

Cronebane, a lease to the Glenmalure mine and the MCI mines and estate. Glendalough was more of a holiday home at first due to its excellent grouse shooting.

In a report of 1896 they stated that their opinion was “that on the whole in our opinion the closure of the mine was brought about due to an improvident and unminerallike method of working” They believed that with proper development productive ground would be found and worked cheaply²⁸. However they had been working the Foxrock and Hero complex earlier as in 1895, two years’ worth of collected or extracted ore was shipped to Swansea on the S.S. Pacific²⁹.

Within a few years mining was halted due to problems with unwatering and lack of machinery. In retrospect it seems they were not sufficiently capitalised as they were trying to develop the three Wicklow mines at the same time; also the lead exported appears to have been previously extracted by the MCI. At this time they invested heavily in explorations in Snowshoe Mine, Canada³⁰, which was lost, possibly due to corrupt mine management³¹.

In 1913 a small water concentration plant was set up in Glendalough valley to treat tailings from the Lukanure and Van Diemen lodes. A tramway was built that transported the tailings to a primary crusher and the plant. The idea was to create a sufficient cash flow to invest in underground workings. It continued until 1925. Several investors came later to investigate the possibility of further exploration without success. The most notable was Grattan Norman³² who spent several years in investigating the area around 1931. In 1935 a powerful storm destroyed the wooden building and spread the detritus over the whole valley.

During the First World War, 1914-18, a major lead shortage occurred and the Ministry of Munitions (a sub-department of the Home Office) granted the Wynnes £2,500 to re-open the mines with a promise of a further £2,500 should the mine have a good chance of success. In 1917, 40 feet was driven in the Foxrock lode and about 35 tones extracted. With the end of the war the Ministry lost interest and the £2,000 that had been privately subscribed proved to be insufficient for further developments.

In 1942 further exploration was carried out and continued for a further ten years but without exploitation. They were hampered by the fact that, in the meantime, many of the shafts and adits had collapsed. In

²⁸ Wynne papers, Geological Survey of Ireland archives and interview with Patrick Wynne, 29th April 1995

²⁹ *Wicklow Newsletter*, 21st December 1895

³⁰ 2019 Either the Cornucopia Mine, Snowshoe Bay area, Kinora, Ontario, or the Snowshoe mine near Phoenix, Grand Forks, British Columbia

³¹ According to Patrick Wynne op. cit.

³² 2019 see also http://archive.oireachtas.ie/1935/EVIDENCE_23071935_0.html and http://archive.oireachtas.ie/1935/EVIDENCE_11091935_0.html

1943 an unsuccessful application was made for a grant of £25,000 to Mianrai Teoranta³³ on the basis of its potential of lead and zinc which in the previous century was of little commercial use and treated as waste.

In 1950 the Mining Company of Wicklow was founded by E.B. Tipping, W.F. Tipping, J.B. Wynne, J. Esmond, Mrs Wynne, Br. McCartan, W. Clarke, and L.C. Wynne. With the help of Gerald Moorehead, then of Silvermines, and Major Michael Parrish of Mineral Explorations, London, debentures were raised. Mining started in 1952 and continued for four years. However, there were problems of insufficient capital, lack of enough ore, lack of a proper flotation works to complement the mill and, perhaps, bad management. While sufficient zinc was found they did not have the technology to process it.³⁴

Canadian Investment

In 1956, after consultations with William Richardson of Toronto a mining finance middleman, a mining option was taken out by Explorers Alliance Ltd. This was done through the setting up of Wicklow Mining Company (Canada) who leased the mining rights from Wicklow Mining Company (Ireland) and a subsidiary, St Kevin's Mining Company, was set up to actually do the work. In 1957 a second option was refused by the backers and the rights reverted to Wicklow Mining Company (Ireland).

At this time mining was done by drilling and blasting and a railway was laid where ore would be drawn out by ponies that were kept in the adjacent Moorehead farm. However, the ponies suffered from dampness and production was often affected especially when ponies for hire were often unavailable. As a result the company invested in a battery train. All power was produced by diesel generators using converted Leyland engines. In the early period there were only two shifts but under the Canadians there were three. Work became more pressurised with a consequent probable dropping of standards that led to the death of a miner in January 1957 when two miners were drilling when their drill struck a piece of dynamite and an explosion hurled the pair to the ground, killing one and seriously injuring another.

In 1959 £10,000 was granted to the company to drive 815 feet of tunnelling in New Hero with 80 feet of crosscuts and complemented by 700 feet of diamond drilling. This was completed but ultimately unsuccessful due to the condition that the tunnelling had to be completely horizontal and deviations to follow the veins were not allowed.³⁵ The work was carried out by Intrafor Mining Engineers in 1960.

³³ Amalgamation of the former Slieveardagh Coalfield Development Company Limited and the Minerals Exploration and Development Company, Limited, 1941-55

³⁴ The mill map in the GSI was an ideal plan but the zinc part was never completed

³⁵ Interview, Patrick Wynne, 1995 op. cit. In fact the veins are unpredictable in direction, and they can die away or lead to large lodes. It is likely that the MCI probably got most of it judging by the maps of the warren of shafts and

In 1963 a company called Zeumac Metal Mines Ltd, another Canadian Company, carried out surface diamond drilling in the area which was negative due to the nature of the ore lodes. They did, however, report an anomaly for copper in near Van Diemen that they hoped to exploit but nothing ever came of it.

In 1963 the Wicklow Mining Company (Ireland) met for the last time with an auction of its effects around 1965. Some of the machinery was sold to a mining plant in Kenmare, Co Kerry. The distribution of the remaining assets that included £1,000 worth of Prize Bonds took some time and the company was finally removed from the register in 1975.

Thus ended 180 years of mining in the area. During its heyday it was the most important mine in the island producing 83% of the total output between 1854 and 1892³⁶. It was one of the few that consistently produced over 1,000 tons p.a. and over that time produced 40,554 tons of ore. For the period 1834-53 the ore raised was valued at £138,756³⁷. The impact on the local economy must have been phenomenal because not only did they employ up to 500 miners there must have been important sub-contracting economy, for instance among the carters that transported the ore to Ballycorus.

The land is currently owned by the Office of Public Works (Parks) and is now part of the Glendalough National Park.

History of the Miners

Introduction

While there are reasonable sources for the mine and its management there is little contemporary documentation dealing with the miners. What can be found are passing references that provide some clues and, in general, show no significant differences to the miners' lot elsewhere.

As a class miners are interesting because they are the first migrant engineering labourers. They differ from agricultural labourers in that they come from different areas forming friendship bonds through their work and it is likely that they rarely returned to their place of birth. Depending on the fate of the enterprise they worked for, they either stayed for a couple of generations or moved on. Many would have been driven by commercial considerations and not from any loyalty to the mine and others would marry into the local population and make a transition into farming or other local enterprises.

tunnels between the two valleys where most was concentrated. Little was ever found elsewhere with the exception of Glenmalure and to a lesser extent Carrigeenduff.

³⁶ H.J. Daly *Report*, Department for Development of Mineral Resources, 1918

³⁷ *Report Select Committee on Industries (Ireland)*, House of Commons

It does appear that the majority of miners were of Irish origin and that the number of Cornishmen is very much exaggerated except in the higher reaches of management and engineering. John Barrow's was criticised in the in the *Mining Journal* for his claim³⁸ that the miners of Caim, Co Wexford, were Cornish. The management flatly stated that, except for engineers, all the workers were Irish. Crude surname analysis is of little use here given the migration of English to Ireland in the 17th and 18th centuries.

One family reflects mine to mine migration. A Stakum came to Glendalough in the 1870s with a previous generation living in Kilmacoo, Avoca, and family tradition says that they came from Co Waterford, perhaps Knockmahon. He married in the 1880s into the Bolger family then resident in Glenmalure (mines?) but who had originally came from Co Wexford, perhaps from Caim. Some Stakums are known to have migrated to the USA while others stayed and still live in the area.³⁹

Population and Migration

With the opening of the mines there was a natural increase of population that centred in the townlands of Brockagh and Seven Churches. In 1841 the electoral district of Brockagh contained 1,563 people and estimates for 1821 and 1831 are 950 and 1,200 respectively.⁴⁰ The population rose to a peak of 1,659 in 1879 with a 1% increase between 1841 and 1851, i.e. the Famine years. This dropped to 1,357 in 1881 and 702 in 1891; after 1901 the population was less than 500⁴¹. The number of houses rose from an estimated 150 in 1821 to 269 in 1841 to a peak of 294 in 1871 before dropping to 169 in 1901⁴². The numbers of people per household remained stable between 1821 and 1871 at between 5.7 and 6.0 but declined in later years to c. 3. These latter figures could be deceptive since it is known that miner's hostels were used and the 1911 census for the Roundwood area shows that some homes had 30-40 lodgers working on the Reservoir extension.

At its peak it may have employed 500 men but dropped to 35 in 1888. It is not clear how many were employed by the Wynnes before the 1950s but it is unlikely to have had any significant effect on the population except, perhaps, to temporarily slow the endemic emigration. In the 1950s up to 50 people were employed from management to mill. The vast majority were local coming from Glendalough,

³⁸ *Tour of Ireland*, 1835

³⁹ 1991 genealogical Report on the family compiled by the author for James Stakum, Laragh

⁴⁰ The 1821 and 1831 census reports are based on parishes, not electoral divisions (ED). The relevant parish is Glendalough, a sub-division of Derrylossary, which is almost certainly made up of the EDs of Brockagh and Glendalough (but excluding Raheen townland). The estimates are based on the 1841 proportions calculated backwards and while the 1831 estimate is probably fairly close the 1821 could be more inaccurate. All figures in this paragraph come from published census reports, 1821-1911

⁴¹ See appendix for selected townland populations, 1841-91 census reports

⁴² See appendix for lead miners in 1901 census, Brockagh ED

Annamoe and Rathdrum. Of these that stayed after the final mine closure many ended up working on the ESB Turlough Hill reservoir complex.

It is likely that in the 19th century there was a high turnover of miners. For instance, in 1841 the mines inspector, Mr Roper, reported that an “absurd rumour” had been doing the rounds that he was employing miners, with a ship ready in Dublin, and received about 100 applications.⁴³ In 1854 it was reported that £1,000 of remittances were being sent by miners that had emigrated to Australia from Co Wicklow.⁴⁴ As previously mentioned, in 1870 the MCI management reported that some of its most experienced miners had recently emigrated. In 1883 it was reported that many had emigrated to the UK and America while others, c. 30-40, were working in the Baleece quarries, near Rathdrum.⁴⁵ Many of the emigrants to the USA apparently ended up in Virginia where they may have been involved with the Molly Malones⁴⁶. A 1956 letter from William Richardson to the Wynnes mentions in passing that one of the backers, J.B. Byrne’s great-grandfather worked as a miner in Glendalough.

Child Workers

As part of the evolving social conscience of the 19th century concern was growing as to the incidence of industrial child labour which was the subject of a Parliamentary Inquiry in 1841.⁴⁷ The inspector found that the two places in Ireland with no child labour were Avoca and Glendalough. His Glendalough report shows that children and women were not employed. The mine manager was clearly dissatisfied with this state of affairs stating that he had offered to advance money to buy clothing to enable them to come to work without effect. He was quoted as saying that they were too proud but attributed it to laziness even though they had but bare subsistence.

However, this should be seen in the context of the local total economy in which tourism played an important part. Travel writers before the Famine unanimously reported that tourists were inundated with guides, souvenir and refreshment pedlars, temporary servants and beggars. This gave rise to much satire among the writers but it is likely that many preferred to take their chances with fickle tourists than the sheer drudgery of dressing ore, particularly in the winters that were a lot colder than the 20th century. In 1876 the MCI reported that one of their efficiencies was the installation of dressing machinery that meant that 2-3 boys could now do what used to take nine men, but it is likely that these boys had finished their schooling sometime in their mid-teens.

⁴³ Frederick Roper, *Children’s Employment in Mines*, xvi, 1842, House of Commons Reports of Commissioners

⁴⁴ *Freemans Journal*, 19th August 1854

⁴⁵ *Freemans Journal*, 3rd September 1883

⁴⁶ *Glendalough Historical and Folklore Society Journal*, no 1, 1991 and pers. com. Michael Lynham, Laragh

⁴⁷ Frederick Roper, op. cit.

Contribution to Local Education

In 1836 the Rev George O'Connor P.P. Glendalough submitted an application for the 8th National School to be built in the county.⁴⁸ This cost £67 to build to which Richard Purdy, MCI, contributed £1, which was hardly very generous. Their involvement over the years is unknown until about 1860 when, with the growth of typical Victorian paternalism, they became involved with the building of new schools on all their mine properties and grant-aiding existing schools. In 1862 they reported their plan to build schools whose purpose was to provide “good efficient company servants”.

Their paternalist rationale was that, as explained in their January 1864 report⁴⁹, “Visitors should go away with the impression that not only do we contribute to the material wealth of Ireland but to the improvement of the intelligence, morality and good habits of the people. There will be no interference with the religious opinions or prejudices of the children. There will be a three guinea reward for good conduct, cleanliness, regular attendance and subordination to the teachers and a further two guineas for the most progress in learning”. Obviously greater emphasis was placed on pliant over intelligent servants.

But by the end of the year they cancelled this initiative possibly because there were conflicts with existing schools and they were vulnerable to inter-religious controversy. For instance an application to build a school house made by Captain Clemes, MCI, in April 1864; who would contribute a plot at Derrybawn and contribute one-third of the building costs. They estimated the number of probable students, miners’ children, as 142 but would probably increase. It was argued that St. Kevin’s N.S. was too far away and the only other was Laragh school run by the Church Education Society. Rev. Abelhauser was to provide religious education for Church of Ireland students.

However, Rev. Coleman P.P. of Glendalough was against the proposal; “and if they persevere in erecting the school he will feel it is his duty to make use of every lawful means in his power to prevent the children of his flock from attending it; and he has entire confidence in their obedience and docility”.

There was a long explanation from Clemes as to its relative merits and why it did not conflict with St. Kevin’s. The Board granted £204 out of £306 total construction costs and salary. The school closed and was struck off the rolls in 1872 due to low student numbers averaging 20-25. The MCI refunded the Board of Works £327/10/- who handed back the lease.

⁴⁸ Ian Cantwell, *The National Schools of Derrylossary Civil Parish, Co. Wicklow, 1831-c.1900* for the education section <https://iancantwell.com/pdf/NSDY.pdf>

⁴⁹ They mentioned, in passing, that there was a weekly deduction of 1/- per week for a sick fund for the relief of poor people. This is the sole reference to this social service

From c. 1850 there was a separate Protestant school in Laragh that subsequently became a National School in 1880 but closed four years later.

In 1883 as a result of drastic cost-cutting all school grants were discontinued. In 1890 St Kevin's Male N.S. was permanently closed and amalgamated with St. Kevin's Female NS (which they had supported when it opened in 1866) due to the closure of the lead mines and subsequent migration of miners and their families.

Safety and Accidents

The nature of the ore, however, created many safety concerns. When the granite magma intruded into the overlying schist it seriously weakened and fractured the rock creating fissures into which the molten ore seeped. Due to the fissured rock, collapses were possible at any time but techniques were worked out by where tribute pitches were quickly opened and closed.⁵⁰ An example of what could happen was in 1825 when two miners involved in re-timbering Weaver's adit were trapped by a fall of rock and had to wait 33 hours before being released. Part of the delay was caused by the fact that for at least six hours nobody knew until the next shift arrived. The rescuers included miners from Glenmalure who arrived as soon as they heard of the accident.⁵¹ In the 1864-90 period only two fatalities are known, the first in 1864 due to a rock fall in Luganure and secondly in 1874 caused by an unspecified spinal injury.⁵²

The one twentieth century fatality in 1957 was due to a new shift drilling into a previously blasted rock face where one charge had not completely exploded. When the drill hit the dynamite it exploded killing James Mernagh, aged 24 and married with two children, and seriously injuring Robert Carter. It was a strong belief of the local community that the 'Canadians' skimped on safety procedures and this is reflected in the verdict of the inquest jury who added the rider that "The regulations which applied to mining in this country should be strictly adhered to". The jury were all local men: M. Sweetman, Eugene Smith, William Miley, John Byrne, David Roberts, William Edge, Patrick Byrne, John Smith, John Stakum, and William Fanning.⁵³

Contracts and Wages

Miners worked on a contract basis that were auctioned between the available teams, called 'tributers' and appears to have been standard procedure in the industry in the last century⁵⁴. From the mine maps it

⁵⁰ *Freemans Journal* 16th August 1825

⁵¹ *Ibid.*

⁵² Register of Deaths, Annamoe District, see appendix

⁵³ *Wicklow People*, 26th January, 1957

⁵⁴ Des Cowman op. cit.

appears that some of the trial adits were called after team leaders, i.e. Cssey, Darcy, Doyle, and Long. Otherwise little is known of their specific conditions but they were probably not much different to elsewhere. From a mining perspective the ore, when found, was followed from the surface like following a buried string. The veins were like a very irregular string of sausages and it was impossible to predict when it might stop suddenly or suddenly expand into a six foot wide lens of ore lasting for several fathoms. In the 1840s miners were reported as earning 12/- a week.⁵⁵

In the 1950s, by contrast, wages were paid with additional bonuses per ton. A sample wage sheet for February 1955 shows:

Position	Weekly Wage	Bonus (per 10 tons)
Mine Foreman	£14	5/-
Assistant Foreman	£8/10/-	3/-
Shift Boss	£8/10/-	3/-
First Miners	£6/10/-	2/9
Second Miners	£6	2/6
Mechanics	£8/10/-	3/-
Assistant Mechanics	£6	2/6
Compression Men	£5/8/-	nil
Mill Shift Boss	£6/10/-	2/6
Maintenance	£6/10/-	2/6
Mill Hands	£5/10/-	2/3
Storekeeper	£5/10/-	nil

Over the years wages and bonuses added up to over £500 for a mine shift boss, c. £350 for a miner and c. £280 for a mill worker. The average mine bonus was £109 and £41 for a mill worker. Most started off in the mill and moved into the mine for obvious reasons but another factor was that the mill was unheated and on a cold winter's night was very unpleasant due to heavy frosts and lack of sunlight.

Miners' Politics

Politically, the miners were probably Nationalist but without any extreme opinions. They would have attended the various political meetings, as much for the socialising as the content that changed and

⁵⁵ Frederick Roper op. cit.

developed through the 19th century, and made the usual financial contributions. In 1867 the MCI claimed that there were no Fenians in their workforce, if there were they kept quiet about it. Industrial relations appear to have been smooth; the company did not suffer from strikes and other industrial action as in other operations. The miners had a brass band through its history though little is known about it; newspapers occasionally report its attendance at political and religious events round the county and Dublin.

It is not clear whether politics was divided on religious grounds or if Protestant miners were involved in Orange Order activities. It may be that the religious divide worsened through the century. The application for the first national school in Glendalough in 1836 was signed by 26 Protestants and 22 Catholics but from c. 1850 there was a separate Protestant school in Laragh. Before the Famine an Orange Order celebration in Roundwood was disrupted by miners from Lughnure but while there is no evidence of an Orange Lodge in the area the victory of William Acton over James Grattan in parliamentary election for Wicklow in 1841⁵⁶ was the cause of Orange Order celebrations that were often disrupted by Catholics who resented them.⁵⁷

The Demon Drink

It is obvious that the two visits of Fr. Matthew, the Temperance Apostle, in 1842 and 1845 had a deep effect on the local population as many people gave up alcohol, at least temporarily, at the time.⁵⁸ Good relations with the local Catholic clergy, in 1863 they made a presentation of a crozier made from 'St. Kevin's Yew' to Rev O'Neill⁵⁹. William Wilde reported that many miners assisted him with building repairs in the Monastic City and some carved graffiti on the walls of St Sepulchre church.⁶⁰

However, by 1870 alcohol and associated violence among miners became prevalent. In 1874 George Booth, Laragh House, wrote to the Lord Lieutenant stating that the miners were paid on a Saturday, get drunk, and engaged in a succession of free fist fights and that the regular RIC force was not sufficient to cope.

This resulted in a report by Constable James Dwyer who reported that a miner called William Pitt was assaulted by George Hyland who was sentenced to one month's imprisonment, the standard sentence, but before the issue of the warrant Hyland absconded to England. He also described an incident about two brothers, John and Hugh Kenny, who were fighting in a licenced premises belonging to Richard Mahon.

⁵⁶ The original report had no date and, incorrectly, John Acton and Henry Grattan

⁵⁷ John Gowan letter to Dublin Administration, CRSOP, National Archives, 1841

⁵⁸ *Freemans Journal*, 4th & 6th June 1842 and 31st March 1845

⁵⁹ *Freemans Journal*, 9th December 1863

⁶⁰ William Wilde, *JRSAI*, (the original report does not have the exact reference)

He attempted to separate them which resulted in the two coming together and they “commenced to assault every man they met” including “wantonly assaulting two other miners, Patrick Dealin and Cornelius Hopkins. This now lasted for about half an hour and on several occasions during that time both Kennys threatened Sub-Constable Irwin and I that if we interfered with them they would stretch us dead on the road. I did not consider it prudent to arrest the Kennys as I was too far from my Station”.

As a result a contingent of constables from Roundwood patrolled the district during paydays. This was successful and in early 1878 they were withdrawn gradually as there was a certain amount of resistance from the Roundwood force that had to walk to Laragh in all weathers. By July the situation deteriorated and Dwyer reported that five miners, Thomas Grafton, John McGrath, William Brown, James Farrell and John Kenny, were serving one to two and one-half months for offences ranging from drunk and disorderly to assault.⁶¹

Mortality

Between 1864 and 1899, the deaths of 76 miners are registered in the Annamoe District. It is likely that this is an underestimate as many deaths went unregistered in the period. It also does not include miners that died in Rathdrum District either in the Workhouse and County Home or in townlands south of Derrybawn, i.e. Knockrath and Cullentragh. And, of course, would not include deaths of any that changed their occupation, i.e. miner to farmer. Also, the occupations of some were not given, 1864-70.⁶²

The average age of death was 50 years old though before 1880 it was 47.5 years. The following table shows the range of ages:

Under 21	21-29	30-39	40-49	50-59	60-69	>70
2	9	6	19	21	10	9
3%	12%	8%	25%	28%	13%	12%

As can be seen around half died between the ages of 40-59, 25% over 60 and 20% under 40.

53 (70%) died of some sort of lung disease that included miner’s asthma, phthisis, consumption, bronchitis, pneumonia and haemoptysis. Other main causes of death included heart, intestine, fever, and cancer, No-one is listed as dying from lead poisoning but it may have been a factor in deaths from colic, nervous system disease and brain inflammation. Lead poisoning was known at least from the early 1800s at least though, perhaps, it would be a bit much to expect general practitioners of the period to be fully

⁶¹ Letters, 1876-78, CRSOP 1878, National Archives

⁶² See appendix for full list

knowledgeable about its ramifications. It is also possible that the MCI's doctor would have seen it in the company's interest to underplay its effects. Though, on the basis of the causes of death, rock dust and dampness were the main contributors. A comment in 1860 indicates the general lack of healthiness of the work: "poor palefaced miners who look up as we pass with lustreless eye"⁶³

Beasts of Burden

Throughout the literature ponies and mules make fleeting appearances but they must have been the main source of power, being later replaced by water power, which, in turn was replaced by diesel. They were, of course, the main source of transport power around the mines and to Ballycorus and other places in Wicklow until the advent on motor transport in the early 20th century. As there is no sign of stabling in the complex the animals must have been sub-contracted from the surrounding area. We know little of their lives and yet without them much of this employment and wealth could not have been created. One could say they are the unsung heroes of the mining industry if one chooses to be romantic about these beasts of burden.

Sources

As a general note the best information comes from specific industrial sources. Tour guides and travel writes rarely mention the mines as they concentrate on describing the Monastic City ruins and the scenery. This is a curious, but typical, cultural blindness that only relates to Glendalough as when they reach Avoca they often describe the mines though sometimes there is more focus on Thomas Moore and the Meeting of the Waters. Other sources consulted were:

Binns J., *Miseries and Beauties of Ireland*, 1837

Cantwell B.J., *Memorials of the Dead*, Vols. 1 and 4, 1970s

Carlisle Thomas, *Irish Tour*, 1849

Carr John, *Tour of Ireland*, 1806

Forbes J., *Memorial made in Ireland*, 1852

Fraser R., *General view of Agriculture and Mineralogy*, 1801

Hall S.C. & A.M., *Tour of Ireland*, 1841

Haughton S., *Geological Notes on Irish Mines*, 1853

Hardman, E.T. & Baily, W.H., *Geological Survey Memoirs of Ireland*, 1881

⁶³ Powell, op. cit.

House of Commons, *2nd Report of the Railway Commissioners*, appendix 9, 1837-8

Inglis H.D., *A Journey throughout Ireland*, 1834

Kinehan G. H., *Economic Geology of Ireland*, 1866

Lewis S., *Topographical Dictionary of Ireland*, 1837

Nicholson A., *Ireland's welcome to a stranger*, 1844-5

Shaw Mason, *Statistical Account*, 1816

Symons B, Laganure Lead Mines, *Dublin Builder*, vol. viii, no. 168, 1866

Transactions of the Geological Society of London, Indexes

Trotter J.B., *Walks through Ireland*, 1819

Webb A., *Recollections of Co Wicklow*, 1850

Appendices

Appendix 1: A note on the sources (written 1995)

The mines were written up by various people in the following years and these combined with the shareholders' reports provide the basis for much of the mines' history. It should be noted that at this stage no complete set of shareholder reports has been found however the shareholders' meetings were often covered by the *Freemans Journal* and has been used as a secondary source. These newspaper reports are useful because they often cover shareholders' interests not mentioned in the MCI reports. So far only the reports listed in an index of the newspaper⁶⁴ held in the Bray Library have been checked.

Grenville⁶⁵ mentions the documentation held by the Home Office in their Abandoned Mine Series which refers to the responsibility of mining proprietors to inform, with maps, the Home Office mines that they have abandoned under the 1873 legislation. A search of the Home Office and Department of Trade and Industry papers in the P.R.O., Kew, was negative. Correspondence with both departments has also drawn a blank so it seems that these papers have not survived but the date and manner of their destruction is not at this time known⁶⁶.

⁶⁴ Coughlan Index. I am grateful to Mary Davies for lending me her copy

⁶⁵ Grenville, op. cit.

⁶⁶ 2019 A new search may throw up records – but my memory is that there were no mine records for Ireland
<http://www.nationalarchives.gov.uk/help-with-your-research/research-guides/mines-mining/>

In assessing the accuracy of the sources one must take into consideration the psychology of the authors. Mining is always a major gamble with the odds of bankruptcy high; therefore mining entrepreneurs have to be optimistic almost to the point of obsession. While this has the advantage of mining being actually carried out it is often the case that expectations are unrealistic and that they are often unable to accept pessimistic or even realistic projections of their mines.

(2019: online sources include: <https://www.wicklowmountainsnationalpark.ie/history/mining/>
http://www.countywicklowheritage.org/page/the_glendasan_mines
<http://www.glendalough.ie/heritage/glendalough-mines/>
http://oldsitehc.info/fileadmin/user_upload/Publications/County_Heritage_Services/Wicklow/Mining_Heritage_of_Co_Wicklow.pdf and various pages on <https://www.mindat.org/>)

Appendix 2 Wynne Papers, (compiled 2019)

The most useful Wynne of Wicklow papers are held by Trinity College (<https://www.iar.ie/Archive.shtml?IE%20TCD%20MS/10247>) and National Library of Ireland have papers of the family generally at (<http://catalogue.nli.ie/Search/Results?lookfor=Wynne&type=AllFields&filter%5B%5D=format%3A%20Manuscript%22&view=list>) The Geological Survey of Ireland also holds some of their mining-related papers, though see <https://www.gsi.ie/en-ie/more-on-us/facilities/Pages/Archives.aspx> I interviewed Patrick Wynne on the 29th April 1995, the audio tape is held by the Visitor's Centre, Glendalough.

Appendix 3: Selected Townland Populations

	1841	1851	1861	1871	1881	1891
Brockagh	785	903	799	974	775	341
Derrybawn	156	145	87	83	72	43
Laragh East	261	360	290	263	224	192
Lugduff	24	23	22	8	8	8
7 Churches	130	111	238	289	237	84
Brockagh Village		155				

Appendix 4: Wicklow Newsletter, 1858-84

Some years after completing this report I made a sweep search through the *Wicklow Newsletter* microfilms at the Wicklow County Library Headquarters, Bray. The following are the most relevant results for the mines and miners classed under mining, housing, crime, and tourism for 1858-84.

Mining - General

19th April, 1862 In a dispute in the Rathdrum Union over the wages of Dr Hatch, dispensary doctor at Annamoe, it was said that the MCI miner's fund paid for his services

28th October 1865 Presentation of a gold watch and silver goblet to Captain Clemes⁶⁷ who retired after 19 years' service.

12th June 1869 Sale of stock from Glenmalure Mines: 861' of lineal double flange rails @ 17 lbs. per yard, 580' double lines, 385' double lines with sleepers and fasteners, 3 wrought iron wagons, 7 cwt. chain, 25' chain, chain & pulley, tackle with fly wheel, 2 bobs, 150' of 1¹/₈ inch pump rods with joints, 35 cwt. ore, 45 10" pulleys' water wheel 32' by 3' with iron shaft and nails, pedestals, brasses, balance bob, drum & 3 pulleys, 243" launder frames & supports, and a smith's forge.

31st July 1869 MCI mine stock for sale at Hunter's, Wooden Bridge, with list

27th June 1869 A court case of Rathdrum Union v MCI over whether valuation should be £2,500 or £1,500 was dismissed. Reports of appeals were on 24th July, 4th September, 23rd and 30th October. Mine valuation is now £1,724, Rathdrum Union ordered to pay court costs.

29th June 1872 Rathdrum Petty Sessions, Major Bookey appeals against previous judgement against MCI for allowing "poisonous matters" to flow into the river. Dismissed without prejudice

20th March 1875 Rathdrum Union discuss MCI Valuation and rates as "Much pauperism was created in the district y miners dying and leaving their families dependant on the rates". It was decided not to appeal as the Union would have to pay its own court costs regardless of the verdict.

Housing

2nd June 1860 In an article on the mines in the county is this comment, "Great credit is due for the manner they have attended to the domestic and moral wants of agents and workmen. The squalid mud cabins

⁶⁷ Possibly the same Captain H Clemes of Cornwall, who was mine captain in Jamaica and British Virgin Islands, see Sue Appelby, *The Cornish in the Caribbean, 17th to 19th centuries*, 2019

almost indigenous to the soil have disappeared. Neat and clean cottages not without architectural design are dotted over the area. A peaceable and well-clad peasantry are seen that contrasts very favourably with the starving poor of the days gone by.”

Crime

There were numerous drunk and disorderly, and assault cases involving a relatively small number of miners; and though not mentioned by occupation they are fairly easily recognised by name. Rathdrum magistrates, including Major Bookey of Derrybawn, George Booth of Laragh, and Andrew Byrne of Croneybyrne often complained of this state of affairs. For instance, 5th August 1876, “The riotous conduct in the neighbourhood of Laragh is becoming so bad that magistrates should adopt strenuous means of suppression”. However, the clergy did have some influence, 3rd March 1877 “Court gratified to find that the teachings of the clergy in this solemn season are not neglected”. As the list of names in reported cases throws up the same ones time after time, it is likely that many miners were never in trouble with the law or in court.

31st December 1864 Rathdrum Petty Sessions (RPS) Miss Farrell, a young girl aged 14, charged with stealing clothes from Catherine Merrigan. She was the eldest of six children; her mother is a widow and breadwinner working for the MCI @ six pence a day. The theft was committed after an argument with her mother. She was convicted but released as she had already been in prison for one month on remand

19th September 1874 RPS Fines for irregular beams and weights: Mary Neill, Brockagh, 10/-; James Hatton, Brockagh, 10/-; John Moorehead, Brockagh, 10/-; William Mahon, 7 Churches, 4/-; Mary Kavanagh, 7 Churches, 2/6. “Court spoke in strong terms on the shopkeepers who would thus treat the poor miners by cheating them out of their just rights when purchasing flour, meal, etc.”

22nd January 1876 RPS Ellen Long (possibly the widow of a miner, i.e. Long’s shaft on the mine maps) for infanticide; her daughter put the dead child’s body into a drain at Glenmacnass but was spotted and was later buried in a field beside the church. She was acquitted and not charged with concealment of a birth⁶⁸

3rd March 1877 RPS James Hatton, Brockagh, miner, charged with sale of spirits without a license; 18 bottles were discovered hidden in his settle bed, which he claimed was for celebrating the birth of twins 12 months previously. Case dismissed but he was fined £1 for being drunk on the 17th March

⁶⁸ At this time mothers suspected of infanticide were never charged with manslaughter or murder but convicted of concealment of a birth and not registering either birth or death; the standard sentence was six months imprisonment,

2nd November 1878 RPS License application by Robert Mahon who had his license revoked 7th October 1876. Since he was closed down drunk and disorderly cases had increased and now there was no suitable pub for the miners or visiting Dublin tradesmen or a suitable place to pay the miners. The license was granted on the Chairman's casting vote on the basis that Mahon was a reformed character. Previously there were numerous cases of him drunk and disorderly, and fighting in the pub and after hours. Even his family had originally supported the cancellation of the license.

9th September 1882 RPS Eliza Brogan, tramp, charged with assault of Mary Halloran, "a pilgrim of the same order" at a boarding house in Laragh. "They were errant priestesses of fortune who carry roulette tables going to 7 Churches with the view of beguiling some of the hard-earned shillings from the miners". She was sentenced to 14 days in Grangegorm; on hearing the sentence she "howled most piteously".

18th November 1882 RPS James Murphy, publican, Laragh charged with serving drink after hours. He claimed that his clock was set by the mine clock and therefore accurate as the miners use it to make sure they arrive at work in time, as they are fined if late. Patrick Bryan, miner, testified in agreement. The R.I.C. had set their clock by the G.P.O., Dublin, two days beforehand but could not swear it was accurate. Case Dismissed.

Tourism

24th August 1861 Reference to a visit to the mines by the Social Science Congress

7th October 1876 Reprint of an article in *Punch* whose reporter visited Glendalough "Farewell my merry miners with your neat cottages who despise beer and whiskey and call for your bottles of wine on pay nights". He finished with a poem:

Give me fatigued with mead and rock

And dangerous researches

The little hotel of Glendalough

In the Vale of the Seven Churches

Appendix 5: 1901 Census Brockagh ED

Alexander Duffy, aged 70, widower living alone, R.C. born Co Wicklow, cannot read, Brockagh – no. 62

Denis McCoy, aged 48. Married with 6 children, aged 4-14, and also living with his sister Elizabeth (aged 56) and mother Margaret (aged 86), R.C. born Co Wicklow, cannot read, Brockagh – no. 67

Mathew McCoy, aged 49, married with 4 children aged 7-14, R.C. born Co Wicklow, read and write, 7 Churches – no. 3

Denis Kavanagh, aged 56, married with one son aged 25, R.C. born Co Wicklow, read and write, 7 Churches – no. 6

John Moorehead, aged 50, unmarried & living with widowed mother Jane, a seamstress aged 74, all born Co Wicklow, C. o I, read and write, 7 Churches – no. 16

In Knockrath ED Nobody gave their occupation as a miner in 1901

Appendix 6: Registered Deaths, Annamoe District, 1864-1899⁶⁹

The list does not include 1) unregistered deaths, 2) deaths in Rathdrum Workhouse⁷⁰ or County Home, 3) deaths in other districts i.e. Knockrath, 4) deaths where the occupation was not given – common 1864-70, or 5) deaths of those that changed their occupation from miner to another.

Surname	First Name	Address	Age	Marital Status	Year	Cause of Death
Lawless	Thomas	Glendalough	59	M	1864	General Debility
Reid	George	Brockagh	28	S	1864	Killed by fall of earth in Liganure Mine
Collins	Francis	Glendalough	23	S	1864	Brain Fever, 8 days
Kavanagh	Henry	7 Churches	21	S	1865	Consumption, 18 months
Kennedy	William	Brockagh	31	M	1865	Congestion of Bronchitis, 5 days
Toomey	John	Glendalough	47	M	1866	Lung disease, 6 months
Clark	James	Glendalough	53	M	1866	Chronic Bronchitis & Paralysis, 2 months
Ennis	Thomas	Glendalough	75	M	1866	Chronic Bronchitis & Dyspepsia, 3 years
Kavanagh	Denis	Brockagh	54	M	1866	Chronic Bronchitis, 2 years
Douglas	James	Brockagh	49	M	1866	Asthma, 5 years
Pitt	Thomas	Brockagh	44	M	1866	Asthma & Lung congestion, 11 days
Fagan	Michael	Brockagh	46	M	1867	Asthma, many years
Moorehead	William	Glendalough	55	M	1867	Heart disease, many years
Magin	William	Brockagh	25	S	1868	Phthisis, 6 months
Douglas	Michael	7 Churches	61	M	1868	Phthisis
Cullen	Charles	Brockagh	45	M	1870	Phthisis, 3 years
Kavanagh	Patrick	Glendalough	47	M	1870	Phthisis, 18 months
Fleming	James	Brockagh	38	M	1870	Phthisis, 6 months
Toole	James	Laragh	21	S	1870	Phthisis, 15 months
Doyle	Andrew	Brockagh	45	M	1870	Peritonitis, 3 years
Lyons	John	Brockagh	56	M	1870	Chronic Bronchitis, 2 years

⁶⁹ I like to thank the Wicklow Registrar for access to this information in 1995

⁷⁰ <https://www.wicklow.ie/Living/Services/Arts-Heritage-Archives/Archives/Collections/Digitised-Collections/Wicklow-Workhouse-Records>

Kavanagh	John	Brockagh	70	S	1871	Chronic Bronchitis, 2 years
Norton	Michael	7 Churches	70	M	1871	Hepatitis, 3 weeks
Long	John	7 Churches	43	M	1872	Fever, 2 weeks
Ruth	Thomas	Brockagh	26	S	1872	Struma, 18 months
Ryan	Daniel	Brockagh	62	M	1872	Heart disease, suddeny
Redmond	James	7 Churches	46	M	1872	Fever & Pneumonia, 3 weeks
Byrne	John	Brockagh	66	S	1873	Bronchitis, 1 month
Moorehead	John	Brockagh	47	S	1873	Paralysis, 2 years
Doyle	William	Brockagh	36	M	1873	Phthisis, 5 months
Kennedy	Andrew	Laragh Bridge	38	S	1873	Phthisis
Ryan	Myles	Brockagh	72	M	1874	Natural decay
Bolger	Edward	Glendalough	56	M	1874	Cardiac Dropsy, 2 years
Donnelly	Patrick	Brockagh	17	S	1874	Phthisis, 1 year
Mulhall	John	Brockagh	44	M	1874	Spinal Injury, 3 hours
Kavanagh	John	Brockagh	67	M	1874	Bronchitis, 3 weeks
Donnelly	James	Glendalough	38	S	1875	Phthisis, 1 year
Carton	Ralph	Brockagh	63	M	1875	Chronic Bronchitis, 4 years
Byrne	Andrew	Glendalough	41	M	1875	Fever, 14 days
Devlin	Thomas	7 Churches	73	M	1875	Paralysis, 2 days
Yates	Thomas	Brockagh	63	M	1875	Paralysis, 5 weeks
Crofton	Thomas	7 Churches	38	M	1875	Anasarca
Burke	Thomas	Brockagh	50	M	1875	Bronchitis, 3 weeks
Joyce	Patrick	Brockagh	44	M	1876	Phthisis, 1 year
Kirwan	Michael	Brockagh	53	M	1876	Haemoptysis, 1 year
Reid	Jeremiah	Brockagh	40	S	1877	Pneumonia, Phthisis Haemoptysis, 17 months
Toomey	Michael	Brockagh	46	M	1877	Phthisis
Butler	Andrew	Laragh	60	M	1878	Cancer
Kavanagh	John	Brockagh	23	S	1881	Consumption, 18 months
Farrell	James	Brockagh	19	S	1881	Phthisis, 1 year
Kirwan	James	Brockagh	75	M	1881	General Debility
Tallon	John	Brockagh	57	M	1881	Bronchitis, 7 days
Magan	James	Brockagh	85	M	1882	General Debility
Doyle	Patrick	7 Churches	56	M	1882	Miners Asthma, 12 months
Neill	Michael	7 Churches	52	M	1882	Chronic Bronchitis & Acute Catarrh, 3 days
McCoy	Michael	Brockagh	62	M	1883	Miners Asthma
Toole	Michael	7 Churches	83	M	1883	Chronic Bronchitis & Heart failure
Doyle	Thomas	7 Churches	28	S	1883	Miners Asthma
Stakum	Patrick	7 Churches	41	M	1883	Pneumonia & Bronchitis
McGinn	Leonard	7 Churches	60	M	1884	Chronic Bronchitis & Syncope
Birmingham	Thomas	7 Churches	51	M	1884	Miners Asthma
Toole	John	Brockagh	49	M	1885	Miners Asthma 4 years
Byrne	Mark	7 Churches	40	M	1885	Miners Asthma, 2 years
McGrath	James	7 Churches	55	M	1885	Acute Pneumonia, 6 days
Kenny	Michael	7 Churches	57	M	1885	Acute Pneumonia, 7 days
Byrne	Patrick	7 Churches	55	S	1885	Asthma, 10 years

Toole	Francis	Aghowle	52	S	1885	Intussusception, 11 days
McGrath	Patrick	7 Churches	52	M	1885	Miners Asthma, 3 years
Lawless	John	Brockagh	55	M	1888	Chronic Phthisis, 3 years & Haemoptysis, 15 minutes
Kavanagh	John	Brockagh	25	S	1888	Follicular ulceration of intestine, 2 months & Diarrhea, 1.5 months
Quinn	Denis	Brockagh	55	S	1889	Chronic Bronchial Asthma, 7 years
Ryan	Daniel	Brockagh	47	M	1889	Phthisis, 4 years
Moran	Peter	Brockagh	78	M	1891	General Debility
Kavanagh	James	Brockagh	53	M	1895	Miners Asthma, 6 months
Toole	Andrew	7 Churches	65	M	1895	Miners Asthma, 2 years
Dolan	Robert	Ballinastoe	53	M	1899	Circoma of tibia, 6 years & Deposit in stomach & intestines, 5 months

There is only one memorial in Glendalough graveyard: Erected by Laurence and Edward Ennis in memory of their beloved father Thomas Ennis who depd this life July 15th 1866 aged 75 years and their mother Margaret who died the 11th Octbr 1857 aged 53 years. Late of Seven Churches⁷¹

Appendices 7-10 are on a separate file as they are images: No 7. is lead prices 1783-1980, no. 8 are historical, account and dividend notes by an unknown compiler that were not included in the report but given here for future reference, no. 9 is a plan map of mine works in Glendasan valley, and no 10. is photos taken in 1995.

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⁷¹ Brian J Cantwell, *Memorials of the Dead*, vol. iv, 1975