

LEAD MINES AND TRIALS IN GLEN AULDYN, ISLE OF MAN

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ABSTRACT: The rich lead mines of Great Laxey, North Laxey, and Snaefell in the hills in the north of the Isle of Man, and the discovery of small veins on the northern slopes at the boundary of the upland region has led to repeated searches for northward extensions of the Laxey veins. The Glen Auldyn adits and the Ellan Vannin mine are about 1.5 km west of Ramsey in a deep glen descending northwards from the hills towards the northern plain. A number of adits dug from 1868 to 1874 have been explored, and are described here.

INTRODUCTION

Lead has been known at Great Laxey for several hundred years. Snaefell mine and North Laxey mines have also produced quantities of lead. A search for northward extensions of the Laxey lode has resulted in a number of prospects in the hills between Laxey, Snaefell, and the northern plain. The hilly ground north of Laxey is cut off by an east-west fault, running from Ramsey towards Ballaugh, and with a downthrow to the north. Many small river valleys flow out of the hills onto the northern plain, as shown in Fig. 1. In these valleys, exposures of the veins have been found and prospected, with little positive result.

LOCATION OF THE MINES

The Glen Auldyn mines are the largest of these northern trials. Glen Auldyn is about 1.5 kilometres west of Ramsey, on the south side of the Ballaugh Ramsey road. It runs north-south for nearly five kilometres.

There are several adits in the different branches of Glen

Auldyn. Most are merely short trials. The main ones, in the western branch of Glen Auldyn (Cartwright's Glen) are located on Fig. 1. The 1897 6" O.S. map shows Ellan Vannin Mine and the "Great Dowk lode" at map reference 4260 9270 and "Lead mine" at map reference 4365 9250 and Glen Auldyn lead mine at 4400 9255. The Ellan Vannin mine lies in a northern sidebranch of Glen Auldyn. The Fern Glen shaft lies south and east of Brookdale House.

GEOLOGY OF THE AREA

Ordovician slates, of Tremadoc-Arenig age were uplifted in Devonian times, during the Caledonide orogeny. They have subsequently been deeply eroded to reveal the underlying granites at Dhoon, Foxdale, Oatlands, and several lesser localities in the central part of the Island. Post-Carboniferous mineralisation has led to formation of north-south and east-west trending zinc-lead-silver veins with gangue of quartz, calcite, and some barite, in several localities, such as Foxdale and Laxey. (Lamplugh 190, pp 490ff, and Ineson et al 1979). Erosion during Quaternary times has cut deep ravines into the hill country. Glen Auldyn is one of these. Typical

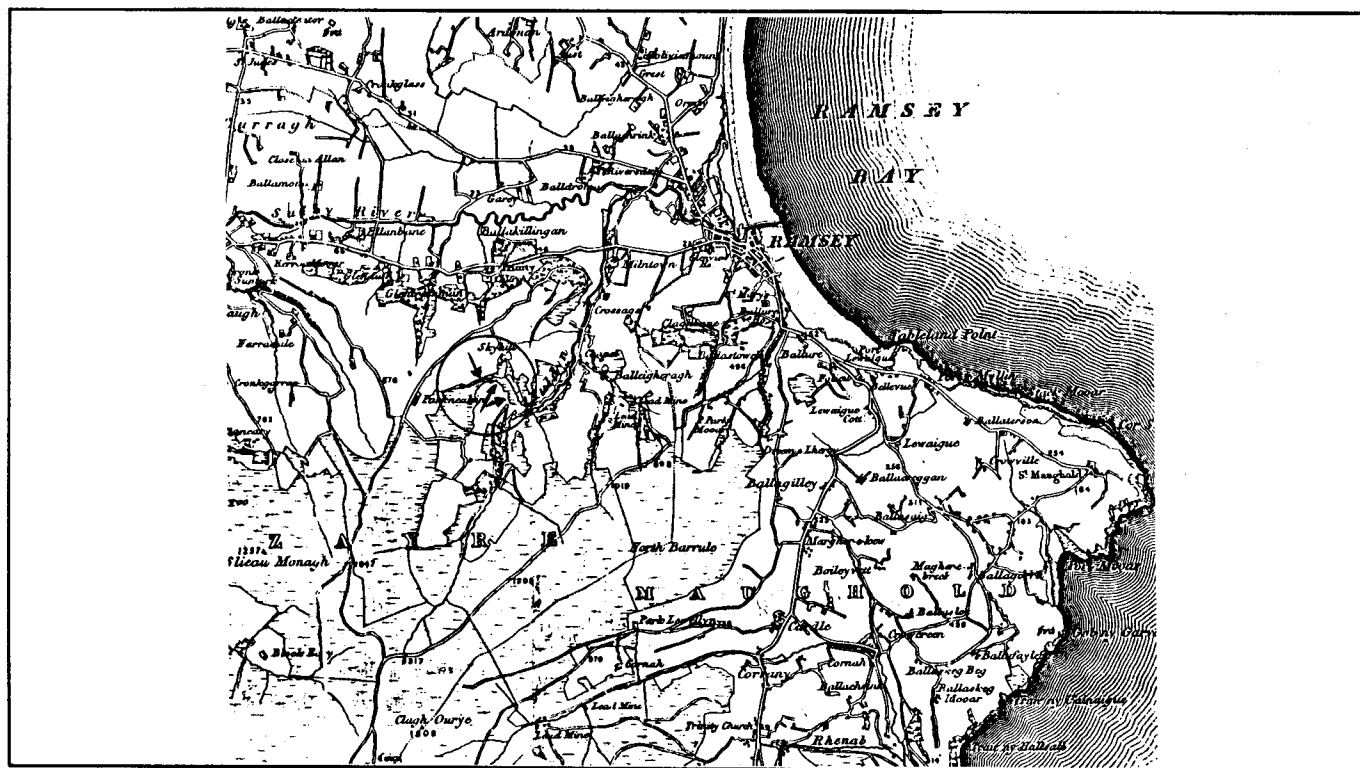


Fig. 1. Map of the area west of Ramsey, Isle of Man. Mines are marked with arrows inside the circle.

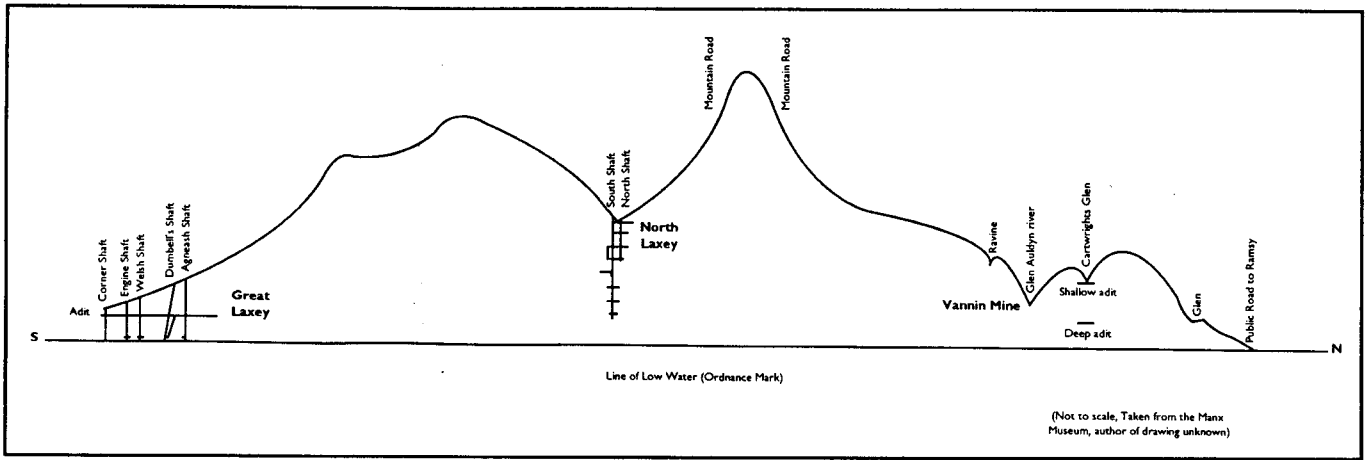


Fig. 2. A section of the ore lode, showing Great Laxey, North Laxey and EllanVannin Mines.

gossan areas revealed in the stream beds there show quartz veins, iron staining, and, in some places, hydrothermal alteration of the slates into soft clays. Further west, quarrying activities have revealed pockets of lead ore such as at Kerrow Mooar above Ballaugh.

The lead discovered in Glen Auldyn led to the idea that the Great Laxey lode should extend northwards, probably in several branches, through Snaefell mine, North Laxey mine

and the other smaller mines of the Corrans Valley, into the northern glens. Fig. 2 shows this relationship. A number of trials throughout the centuries has been made in an effort to locate the northern ends of the ore lodes.

LEAD MINES IN GLEN AULDYN, ISLE OF MAN.

Early History

Glen Auldyn is a glen about one mile west of Ramsey on the south side of the Ballaugh-Ramsey road. The glen runs nearly north south for about three miles. Mining in this glen has been recorded since 1740. In a report by Grime and Simpson for the Governor and the Company of Mine Adventurers dated 17th December 1740, it says of Glen Auldyn:-

"In the parish of Kirk Christ Leyair near Ramsey, a small string of ore appeared to the day in the foot of a hill. And was tried by Sir John Askin with two men only who wrought there about four months after the rate of nine shillings a week each. This vein or string runs near East and West, but is very hard for they only drove about four fathoms and sunk one and raised only one ton of ore. As we are informed, they left no ore in sight in any part of their working. The workmen here are no ways acquainted with blasting for it happened that one of the workmen who was setting a blast was killed dead upon the spot therewith, so the mine was given over and never wrought since".

The next mention of the mines in Glen Auldyn was in a letter to the *Mona's Herald* on Wednesday 2nd August 1865 under the heading "The North and it's Mines". It says:-

"We next came to Glen Auldyn, here we found near the entrance some prospecting trials had been made, but abandoned. Higher up the glen we came to the set now in the hands of Capt Rowe, where a number of men are employed in driving a main level at the foot of the hill, and another adit or drain is being driven into the old works. Here it is still remembered by some old men that about seventy years ago about 60 tons of lead was obtained in this locality - which fact is corroborated by the Customs books at Ramsey, where it is entered for shipment. At present there is every reason to believe that this place is calculated to make a first-class mine. Even now there is visible a promising string of spar, intermixed with lead ore".

This letter was written under an alias: Mannangh Ruggit as Faoggist.

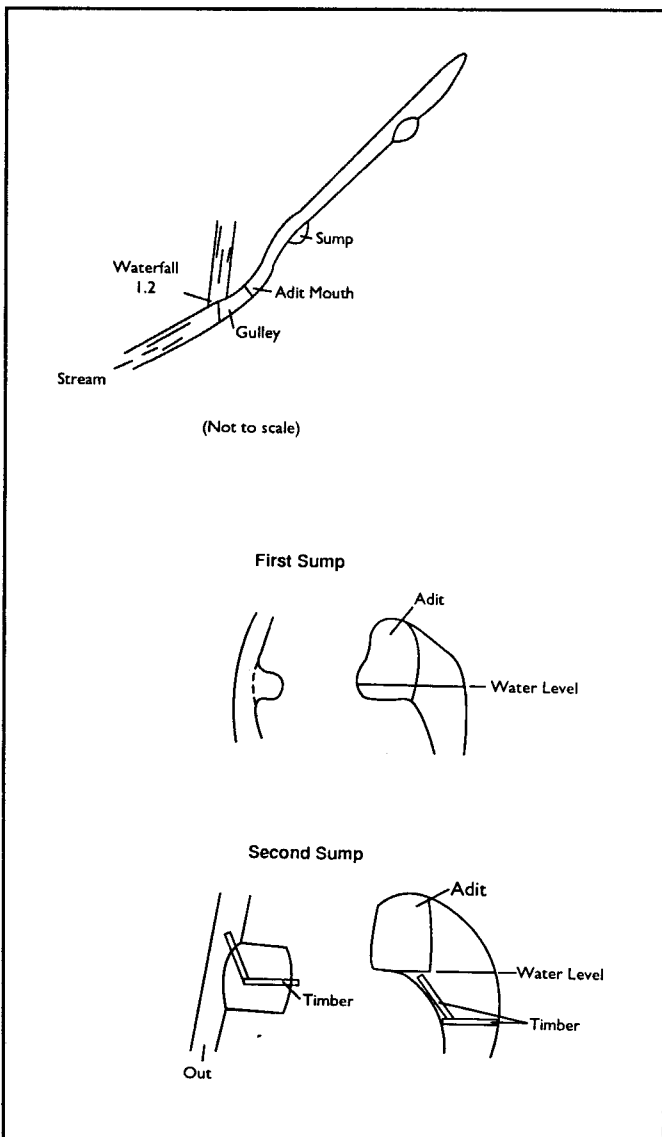


Fig. 3. Ellan Vannin Mine Lower Adit.

The site mentioned is hard to identify but is more than likely to be the Glen Auldyn mine going by the description. "Spar" was a Manx term for quartz.

NINETEENTH CENTURY MINING VENTURES AT GLEN AULDYN

Ellan Vannin Mine

Lamplugh (1903) p.544 wrote -

"This was really an unproductive trial made between 1870 and 1875 in a glen which runs south from Skyhill Farm to join Glen Auldyn. The workings were started on the discovery of some lumps of lead ore in a gossany north and south vein in the bed of a stream, which was thought to be the prolongation of the Laxey lode. (see fig 2) A level was then driven from the bottom of the valley 200 yards lower down below the bend of the stream, to cross-cut the lode under the hill. This was said to have reached 104 fathoms, with branches. In a report of 1874, Sir W.W. Smyth noted "that the long level failed to show the least sign of any vein on which to open workings". A shorter level 30 fathoms long driven north north west from the fork of the stream south of Skyhill, to test another supposed lode known as the Douk Vein, was equally unsuccessful. The cost of the trials must have been considerable, and no ore was marketed." In Mackay and Schellmann (1963) it suggests that the long level may not have gone far enough into the hill.

Glen Auldyn Lead Mine

Lamplugh continued, on p.545. -

"This name was given to a series of trials in the upper part of a glen which falls into Glen Auldyn from the east of Ballagheragh. The earlier workings in the ravine, 500 yards west of the Mountain Road below N. Barrule consisted of sinkings and short levels on a vein striking N.20.E with a westerly dip. A deep level was afterwards started 200 yards lower down the valley, to cross-cut the lode, and was driven 69 fathoms, but is said only to have cut the "flookan", a subsidiary vein, and not the main lode. The workings were referred to in Sir W.W. Smyth's report of 1866 where he described the vein as a "soft lode on which adits are driving with small isolated stones of lead ore". No returns were recorded. Another level was driven south in another branch of the same glen, 400 yards west of the above, but no lode was visible." This is at the location marked "lead mine" on the 1897 O.S. sheet No. 5.

There are two other levels in Glen Auldyn, both at the top of the valley. One is connected to the slate quarry and the other was driven west, and is about 200 metres down from the

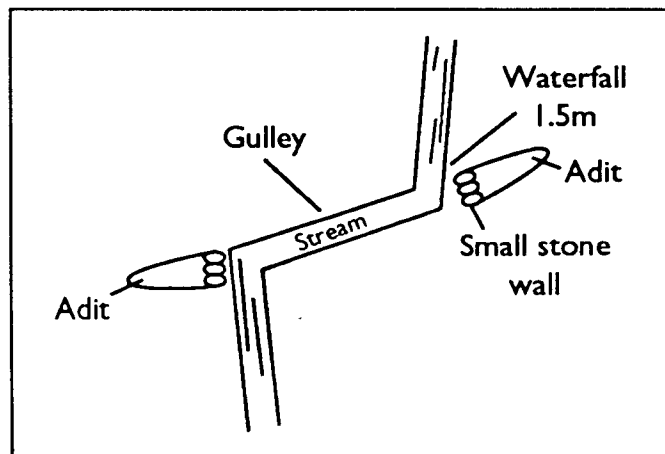


Fig. 4. Ellan Vannin Mine Upper Adit.

quarry, seeming not linked to the quarry or the other adit. A shaft also exists in a side tributary at Glen Fern, east of Glen Auldyn. It goes 15 metres down to water, and has not been explored.

Some documentation exists in the archives of the Manx Museum. These two mines were run by different companies. The Ellan Vannin was run by the Vannin Silver Lead Mining Company Ltd. which was first registered on the 7th October 1870 with a capital of £15,000. The directors were Mr. Dumbell, an advocate of Ramsey, Richard Rowe, Mine Agent of Laxey, Robert Archer, a draper of Douglas, William Clague, a draper of Douglas, Charles Banks Nelson, John Clague an ironmonger from Ramsey, and William Henry Rowe a Mine Agent from Ramsey. Only 1635 shares were sold at the start, but by 1872, 5285 of the £1 shares were sold. The sett was 500 acres. This mine is incorrectly named "Ethel Vannin" by Mackay and Schnellman (1963), in their appendix three, item 38, page 19.

Burt et al (1983) note:

Northern Hills, Glen Auldyn

Production:	Lead, no return
Ownership:	private company
Management:	1867-1873, Richard Rowe 1874 W.H. Rowe
Chief Agent:	1866 Richard Rowe

This information is not clear about whether it is Glen Auldyn in general, or the Glen Auldyn mine in particular. No material specifically relating to the Glen Auldyn mining company itself has yet been found.

RECENT EXPLORATIONS BY A MANX BASED GROUP

This material is reproduced verbatim from *Man Underground* No. 11. (Dec. 1992.) A few comments and references to

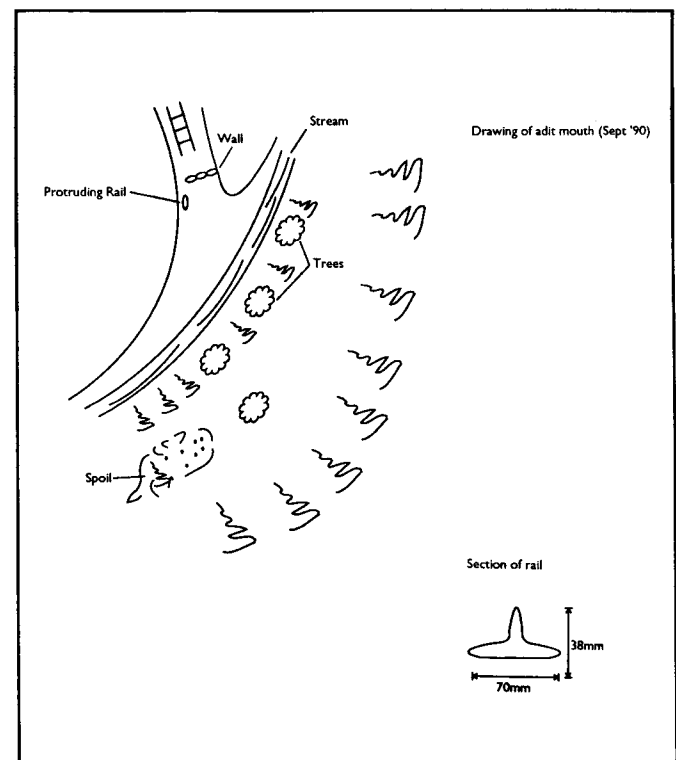


Fig. 5. Plan of the lower entrance to the deep adit, Ellan Vannin Mine.

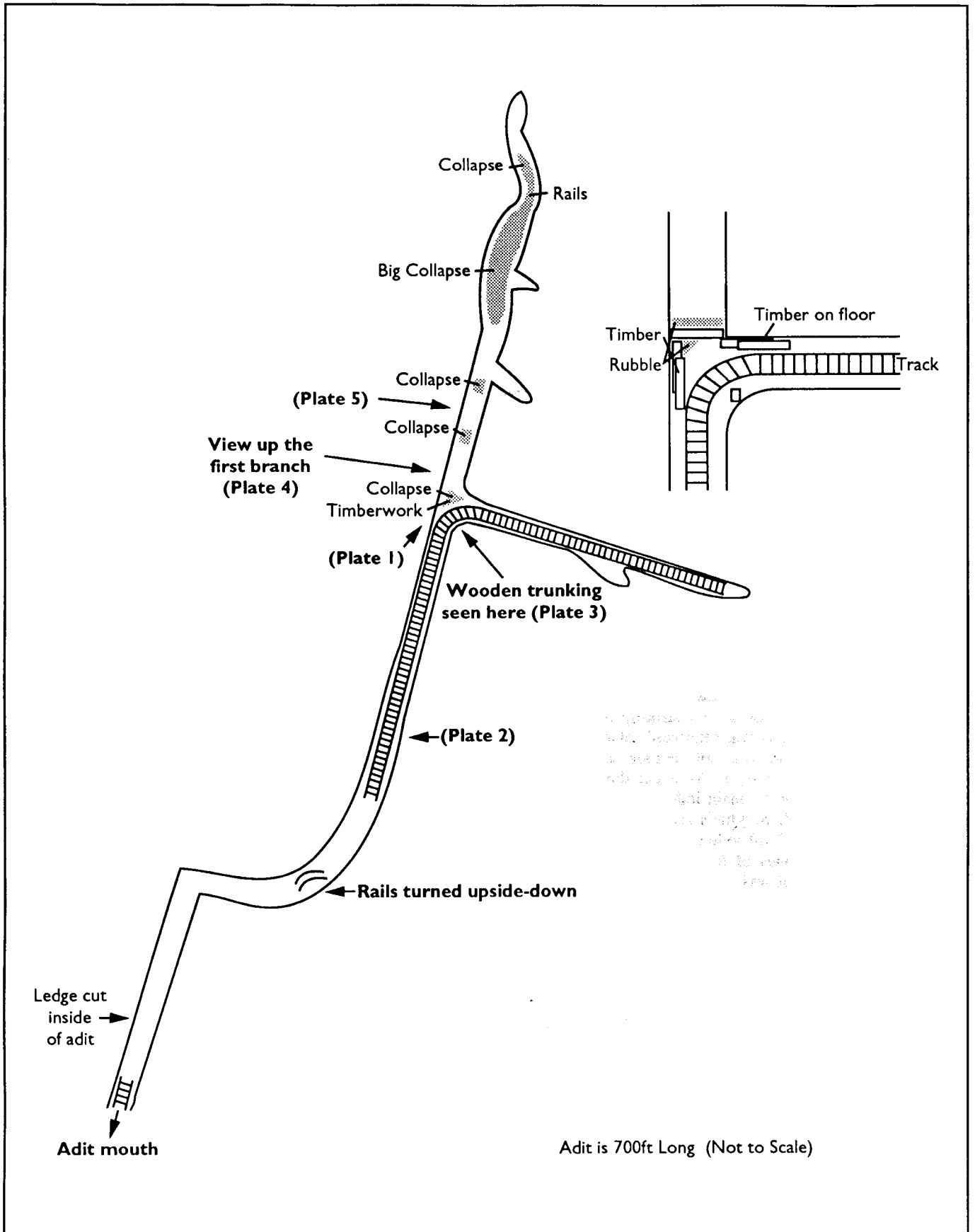


Fig. 6. Sketch of deep adit at the Ellan Vannin Mine.

figures and plates are inserted extra to the original material.

Ellan Vannin Mine

"When we first visited Cartwright's Glen or as known locally

Jackie Pallister's Glen after the man who had a small holding at the bottom of the glen, we walked up the south side of the glen to about half way up, where we came to an adit mouth on the northern bank of a little stream. We ventured in. The

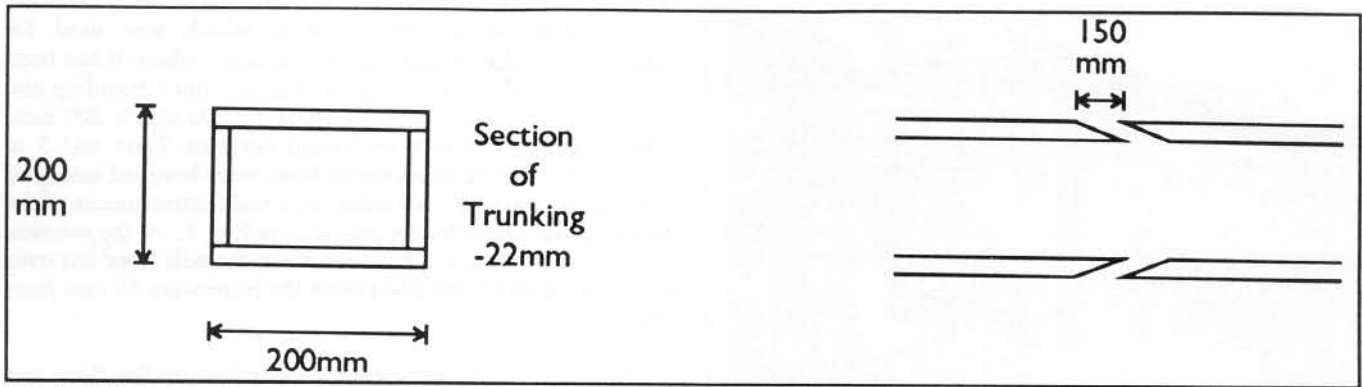


Fig. 7. How the sections of ventilation trunking were joined.

adit headed in a northerly direction. There was about 45 cm of water in the entrance which was approx 1.8 metres high by 0.9 metres wide. About 10 metres in on a slight bend, on the right hand side was a sump about four feet deep (1.2 metres). A short distance further the water stops. In another 15 m. also on the right is a second sump but this one comes half way across the adit and is some 2.4 metres deep. Some timber can be seen in it. The adit came to an end after another 10 metres. There was no sign of any lode. "A sketch of the lower adit appears in Fig. 3.

"On leaving this adit we headed up the glen following the stream. After going another 200 metres we came across another adit in the south side. This was only 8 metres long. The stream now came down a gulley but at the other end was another short adit". Fig. 4 shows the Ellan Vannin mine upper adit.

"So far this trip was a bit of a disappointment for we had not found the long adit we were looking for. So we descended down the glen on the northern side until a point about 70 metres below the first adit we found. Some young lads were seen coming out of an adit we had missed. We went in". The plan of this adit appears in Fig. 6. The entrance to it is sketched in Fig. 5.

"The entrance of the level is 2.1 metres high and 1.2 metres wide. In it is a stone wall 1.2m high which someone has

partly removed. Where the wall has been removed, protruding out is a piece of rail which goes inside. In the water, the track continues on another 18 metres, as can be seen in plate 2. The railway track goes for about 18 metres, then the track appears to have been removed. You can still see the indentations where the track once was. The tracks were 43 cms apart. At this point, 18 metres into the adit, there is a ledge that has been cut into the side of the adit. It goes for 8 metres and is 250 mm wide and is 50 cms off the adit floor. It was probably used to take the wooden ventilation trunking (found further in) to keep it out of the way of the ore wagons. This part of the adit goes straight into the hillside for 65 metres till it comes to a hanging wall at 90° to the adit. The adit turns 90° to the right to follow it for a short distance. There is a trace of a bluey clay vein in the adit ceiling but it soon disappears. The adit then turns to the direction it was originally headed. Here the railway track re-appears. In this 30 metre section to the first branch to the right of the adit, the rails turn into this branch and continue

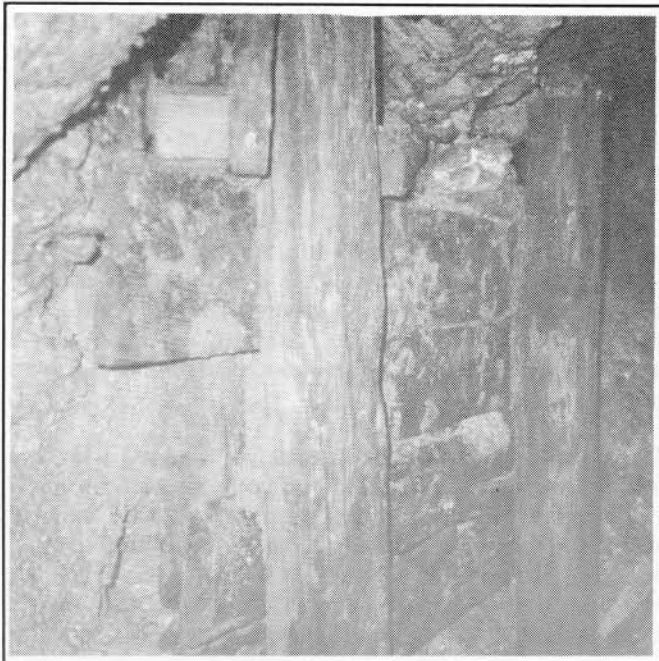


Plate 1. Wooden wall bracing in Glen Auldyn north adit.

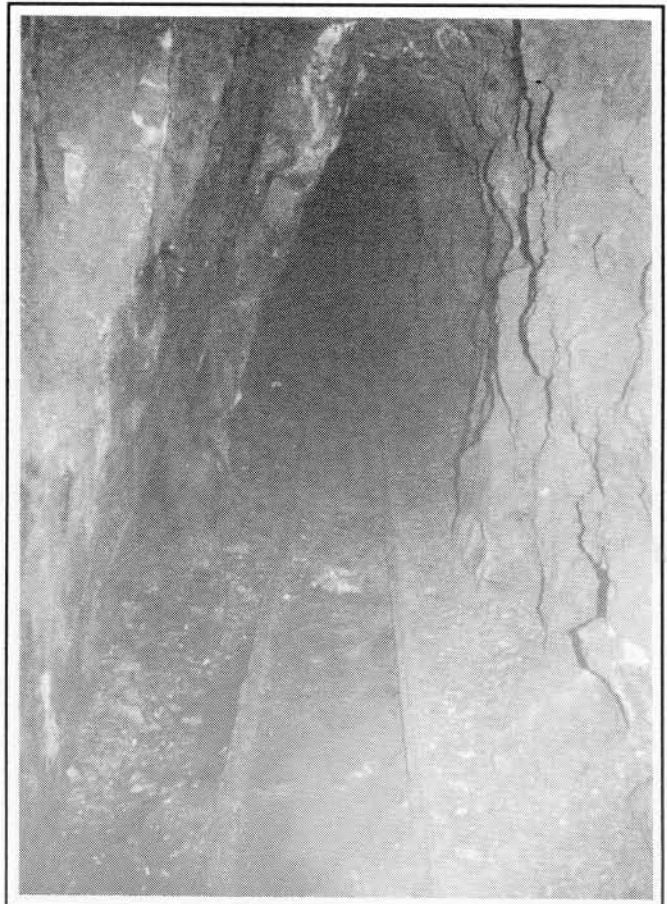


Plate 2. The rails disappear into the adit.

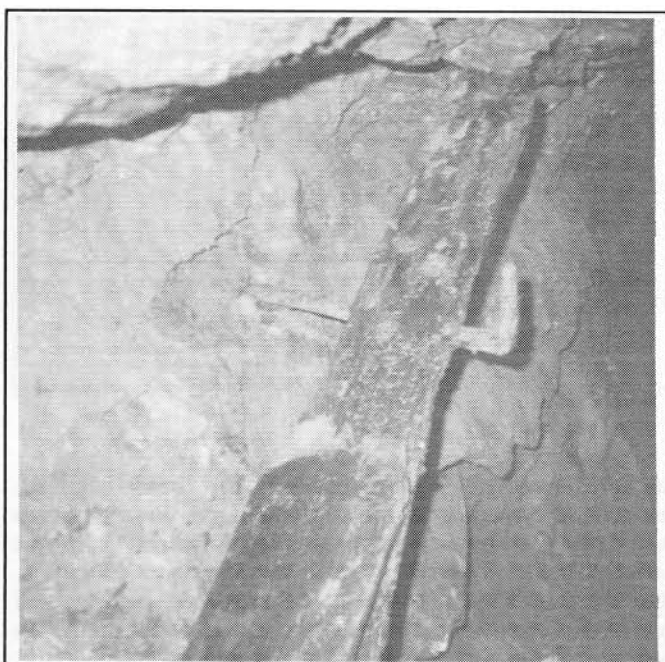


Plate 3. Wooden trunking in the adit, showing iron retaining spikes.

to its end 30 metres on. At the junction of this branch to the adit is some timberwork, props and shuttering, also some timbers lie on the floor. There is also a small collapse at this junction. This timbering is shown in Plate 1. The view up the branch is shown in Plate 4.

Also in this part are some iron spikes protruding out of the

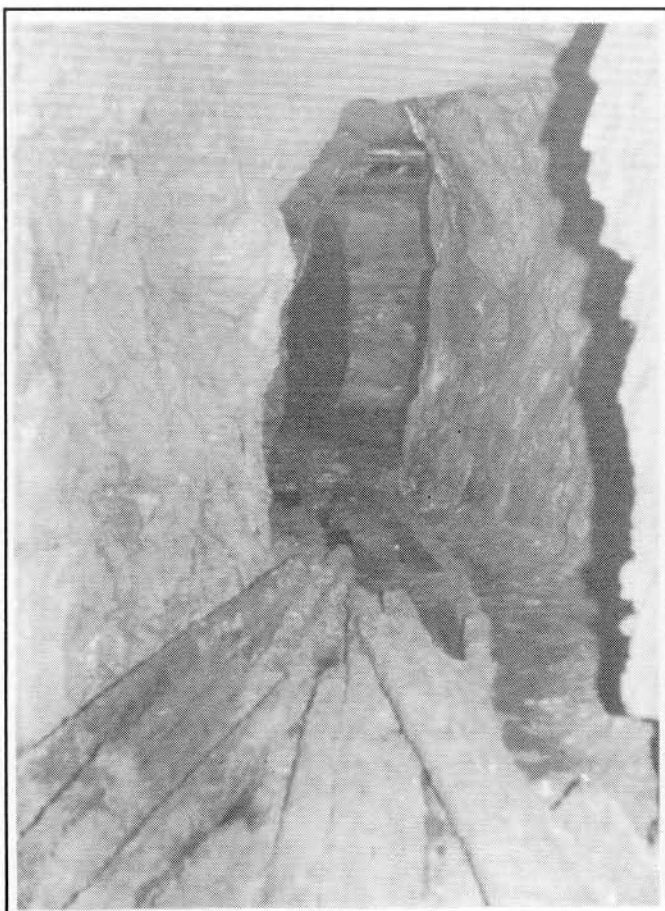


Plate 4. The first branch off the deep adit.

adit wall, (Plate 3) as much as 40 cms. On some of them are the remains of wooden trunking which was used for ventilation. This is only the second mine where it has been found. The trunking was made of 22mm thick boarding and made the cross-section of the trunking 200 mm x 200 mm. The length of the sections varied between 2.4m and 3 m long. The joints between the sections were bevelled into each other up to 150 mm. All sides, tops and bottom pieces of the trunking were bevelled as indicated in Fig. 7. At the junction the iron spikes were 1.2 metres from the adit floor but over 20 metres towards the adit mouth the irons were 50 cms from the floor.

In this first branch also some timber lies on the floor and here, a little way in, there is some light timbering holding-up some timber the roof.

From the junction with the first branch the adit continues. In this section of the mine is a series of four collapses. Most of the small ones are where parts of the vein or the adit wall have given way. The water that has collected behind them is only 30 cms deep. Two of these collapses have been timbered. This has rotted and given way. The big collapse is where the roof has caved in. This collapse is 11 metres long, and it is possible to squeeze past it into the final part of the adit. The adit is only another 25 metres long and there is a piece of railway iron to be found. There is one small collapse in this part but it is passable. This final part of the adit ends at the forefield, on the vein. Plate 5 shows the small collapse.

The iron and manganese staining seen here is typical of that at the forefield, a few metres further up the passage. The vein is quartzly with bluey clay intermixed. We could not find any samples of lead ore in the adit or in the spoil heap near the entrance. The spoil only forms a small heap at the adit entrance, so most of it must have been removed elsewhere."

The three adits explored are marked by arrows within the circle on Fig. 1.

CONCLUSION

It would appear that the major effort was made during the 1740s, possibly again around 1790 to 1800, and finally from 1865-1875. Unfortunately, artefacts from the earlier working periods have not yet been found, but in Ellan Vannin deep adit, rails and air trunking typical of north British mining of the mid 19th century, and like that present at other localities in the Isle of Man, have been recorded. No large lead ore deposits were uncovered.

The relation of these northern veins to those around Laxey is neither proven nor disproven. It is a pity so many of these adits headed north, away from Laxey. Driving towards the south might have produced better results, and established a relationship between the Laxey lode and these northern exposures.

The existence of wooden or box-metal air trunking in this and several other mines on the east and north sides of the island is interesting. First, the places where it has been installed are mostly short adits, open direct to day, not winzes or other passages. Hence the natural circulations induced by air pressure variations of the weather should be sufficient to ventilate these small mines. Blasting might have created a

foul atmosphere, but it was normal practice to blast at the end, not beginning of a shift. Thus, the air should have cleared before entry of the next group of workers. However, it has been noticed by present-day explorers that a slightly sulphurous smell in addition to the natural damp, clayey smell, and a few patches where breathing becomes difficult, persist in some of these adits.

A cause has to be found for these gas pockets. The likelihood is that the same hydrothermal activity as turned the slate to grey clay also brought with it the iron staining, some sulphur dioxide or hydrogen sulphide, and also carbon dioxide. At this time, it is not known how much of the alteration of these veins is hydrothermal, or how much of the alteration is due to penetration of water and oxygen from surface. One could model the situation in terms of deposition of iron sulphides and/or carbonates which were later oxidised and hydrolysed from surface waters. This would release gases containing sulphur, produce iron oxide-hydroxide compounds, and create the acid conditions necessary to bring about rock decay, without any need for post-mineral hydrothermal activity. Two factors militate against a surface water permeation. The veins only outcrop at surface in a few places, so penetration from surface would be limited. Even at the forefield - of Glen Auldyn and several other mines - the distinctive yellowing of the vein and rotting of the country rock to grey clay is evident, in even some of the deepest adits. On present evidence and understanding, it seems that, post mineral deposition, some hydrothermal activity broke down the metal ore veins, producing gases which were released from fissures in the rocks during mining.

Future potential of this and other mines in the locality appears to be zero. However, that does not preclude future finds of ore closer to the main bodies at Laxey, North Laxey, or Snaefell.

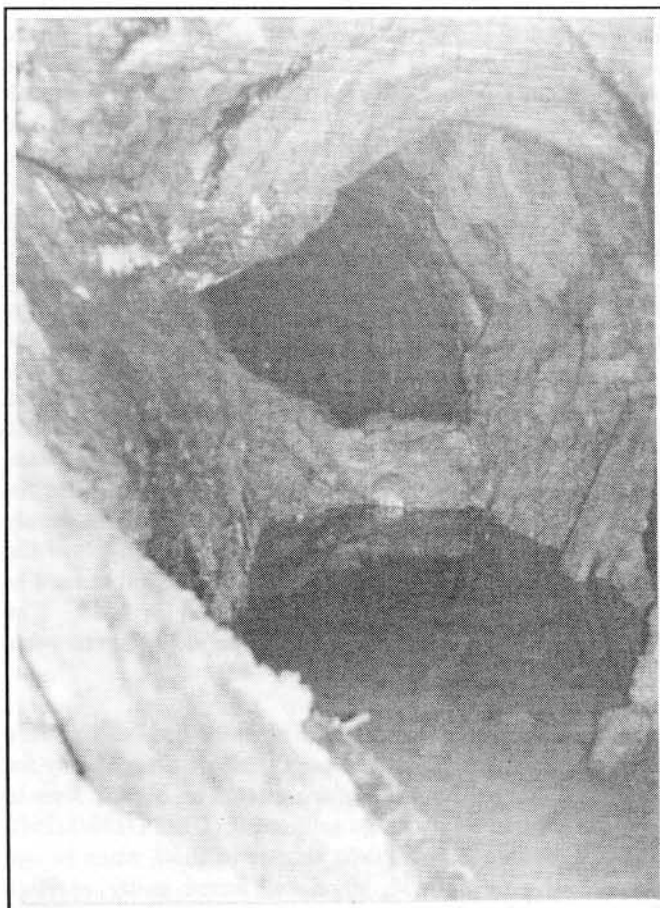


Plate 5. The vein in the deep adit, between the two small collapses.

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