Metalliferous Mining in the Channel Islands

Howard Sprenger

It has to be conceded that the Channel Islands have never been part of Hampshire, but perhaps I might be allowed a certain degree of latitude given that, for over 500 years, they have been part of the Diocese of Winchester, even though at the time of writing, "episcopal oversight" has been temporarily transferred to the Bishop of Dover.

On my second visit to Sark in 1998, I saw a view (much to my surprise, it has to be said) not hugely dissimilar to that shown in Figure 28 and, before long, I was looking into the history of mining on Sark and the other Channel Islands. A surprising amount has been written before, but it is not widely known about, and research is still continuing into the history of the various mines. A brief list of references appears at the end of this paper.



Figure 28. A postcard view of Sark's Hope mine, probably taken c1910

Each of the islands supported a quarry industry; mainly for local use, but in the case of Guernsey, Herm and Alderney, in particular, markets for granite were found in the UK and Europe. This quarrying activity inevitably led to searches for metal deposits (either by accident or design) and all the islands were to boast some mining activity apart from Alderney, on which none has been recorded.

The earliest reference to mining in the Channel Islands dates from 1290, and although it is not known exactly where it was, it is likely to be Sark. This article is concerned with the so-called "Channel Islands Mining Boom" of the 1830s and 1840s, and I shall deal with several "false starts" before concentrating on the main mining activity in the nineteenth century, which took place on Sark.

Le Pulec, Jersey

In 1837, the *Jersey Times* reported that John Hunt (of whom, more later) had been making some mineralogical researches in Jersey, during which he had discovered veins of copper and tin. By 1843, a small amount of copper had been worked from a vein found in a quarry at La Moie in the south-west of the island, but no further development took place.

Much later, in 1871, deposits of galena said to be rich in silver were discovered at Le Pulec in the north-west. It was thought that these might connect with those found on Sark, and one vein was worked for a while, but this last attempt to exploit the mineral wealth of Jersey (and indeed, the last in the islands as a whole) came to nothing.

Blanchelande Mine, Guernsey

In 1834, John Hunt was given permission to explore between Clarence Battery and Terres, near the island's capital, St Peter Port. This led to the establishment of the Hope Copper Mine, but it produced nothing and quickly disappeared.

In late 1842, mining rights were leased by William Payne Georges from the Seigneur of the Fief of Blanchelande, Mr George Lefebvre. Four potential sites were identified, and the one at Mount Durand, on the south coast, was said to be "well worth a trial". A large quantity of lead ore was found, but not the expected silver.

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By December 1842, a matter of weeks after mining activities began, locals complained that operations had caused wells in the area to dry up, so on 4th January 1843, the Royal Court ordered that the works be suspended for fifteen days to give the Constables an opportunity to bring an action against the company. The Constables were further granted an extension to one month, but such was the interest in the venture that despite the uncertainty, £4 shares were being sold for £34.

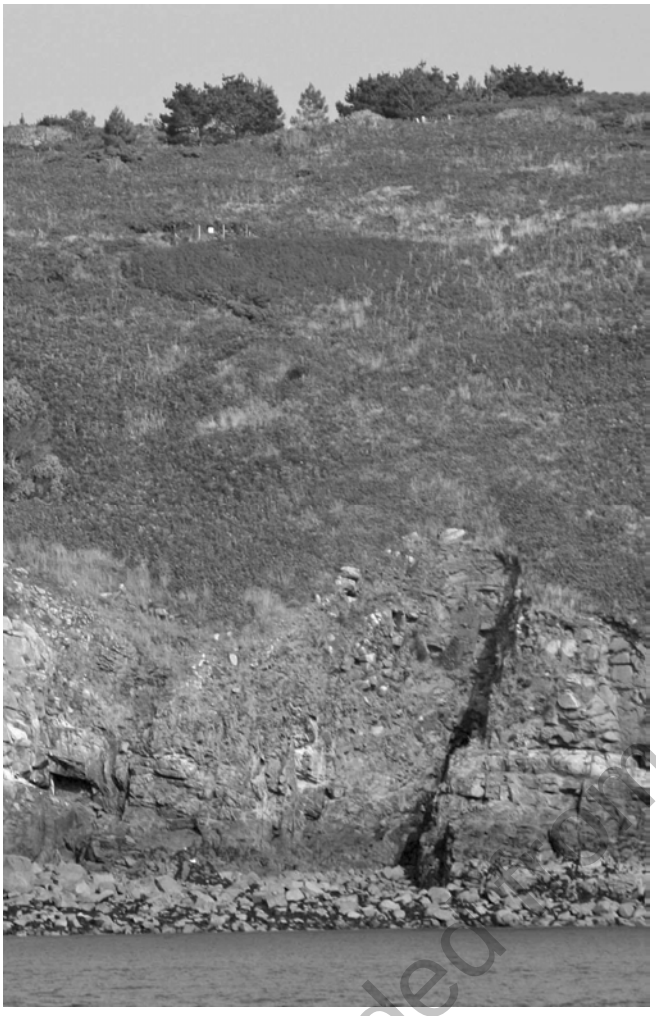


Figure 29. Bishop's Cove adit, Herm, is seen near sea-level to the right of the photograph with the fenced-off shaft on the coastal path above, 26th August 2013.



Figure 30. Close-up of the shaft on Herm next to the coastal path above Bishop's Cove, 26th August 2013.

Due to a large number of legal twists and turns, relating more to the laws governing the ownership of mineral rights than to the grievances of the locals, the case dragged on through 1843 until, in December (a full year after the initial complaint), Georges relinquished his rights, claiming that the abortive enterprise had cost him £400. He was awarded £200 damages by the States of Guernsey, and no further mining took place on the island.

Access to the mine adit is from a small beach south of Mount Durand and adjacent to Petit Port Bay, which can only be reached by climbing down 270 steps. Once on the beach, access to the workings is almost impossible due to tides and rocks.

Herm

Two lodes were known from the eighteenth century, one of copper running north-west to south-east across the island, and one of silver-lead running west to east in the south-west of the island. In 1837, John Hunt obtained a concession to mine on Herm, and formed the Herm Mining Company early that year. The *Mining Journal* reported that it was "likely to become a very rich mine…some very fine ore has been found, which we understand is a sulphuret of lead and silver". It was also, "happy to hear the copper lode is likely to be very productive".

Favourable reports continued to emanate from Herm with the result that Hunt renewed his concession in 1842. A report in the *Mining Journal* in March of that year referred to the removal of unspecified "difficulties which produced a temporary suspension of the works", and that "operations on an increased scale are about speedily to be resumed, by the erection, of the necessary machinery". Despite this optimism (ore from the mine was displayed at the company's Guernsey offices) activities seem to have ceased by 1845, likely due to the high cost of fuel; no actual ore production has been recorded.

Little evidence of the copper workings is visible. There was an adit and probably a small shaft by the eucalyptus trees at Valley Panto, but this has recently been "landscaped" by the resident gardening team! Reading shaft, Lucey's shaft and Gay's adit are pretty much inaccessible. It is uncertain where the names came from, but Mr Gay is said to have kept a public house on the island, and his wife might have been

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called Lucey. "Reading" could have been derived from the fact that a lot of the investors seem to have come from the Reading area.

As for the silver-lead lode, Bishop's Cove adit is at sea level, with a shaft (possibly Boyd's, but there is some uncertainty over which shaft had that name) on the surface by the coast path. There is a small adit just below this shaft.

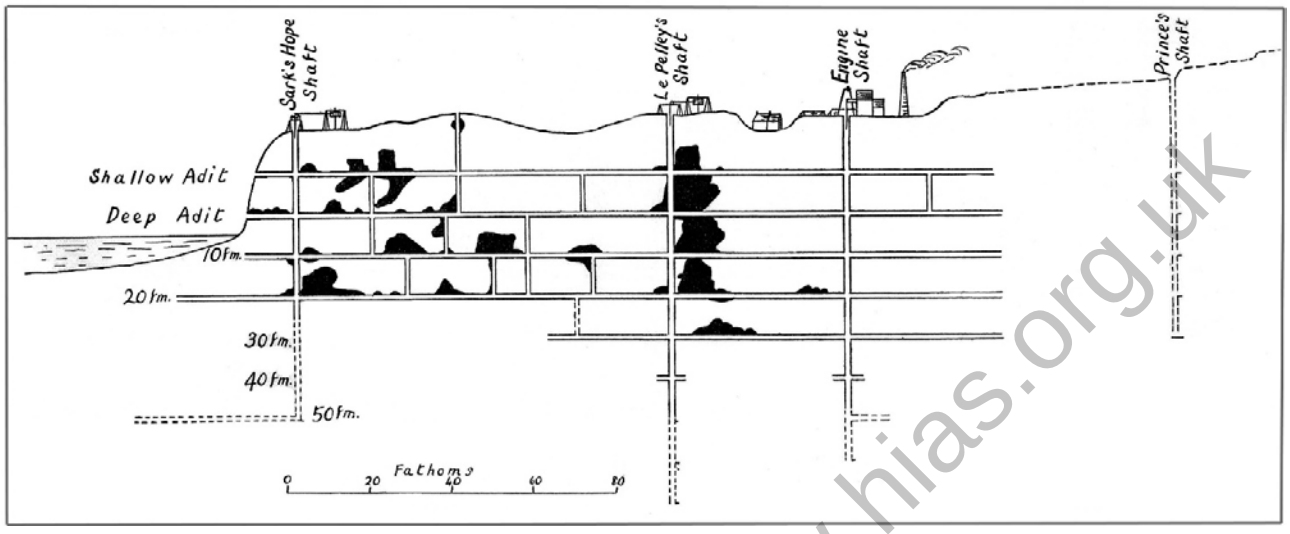


Figure 31. Section of Sark's Hope mine, based on an original made by John Prince, the mine manager, in 1871, and supplemented according to later reports. Broken lines show supposed workings from written descriptions, some of which are doubtful.

Sark – Brecqhou

In addition to his activities on Guernsey and Herm, John Hunt obtained permission in 1834 from the Seigneur, Peter Le Pelley, to exploit Sark's mining potential, and the Sark Mining Company was formed with its head office in Guernsey. Hunt investigated sites on Brecqhou, Port ès Sées and Le Pot using Cornish miners, before a major discovery of silver-lead on the south coast in 1836 led to Sark's Hope becoming the major focus of Hunt's activities.

The explorations on Brecqhou for copper led to an adit being driven at the back of a natural sea cave at the east end of the island in the mid-1830s, and a report in 1838 stated that "the present working lode has a very imposing and promising appearance near the sea". However, all work ceased soon afterwards because of flooding.

The island is now well-known for being owned by the Barclay brothers, whose huge wealth has been generated through media, retail and property. As such it is "off limits" for exploration, but there is very little to explore.



Figure 32. Sark's Hope mine viewed from the South on 29th August 2008. Visible (left-to-right) are the remains (V) of the pumping engine house on Vivian's shaft, the two chimneys (CC) on the top of the hill, the smelter (S) with the site of the timber landing stage below, and the crusher building (W) set into the hillside.

Sark – Port ès Sées

At Port ès Sées there was a copper lode, described by Captain Vivian in 1836, and reported by John Prince as being worked by an adit from the cliff. Some silver deposits were also found, and in early 1838, the *Mining Journal* reported that 150 fathoms (275 m) had been driven on the copper lode in two adits, the deep adit being 5 ft (1.5 m) wide. There were many problems with

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Figure 33. Close-up of the smelter with the levelled loading platform below.

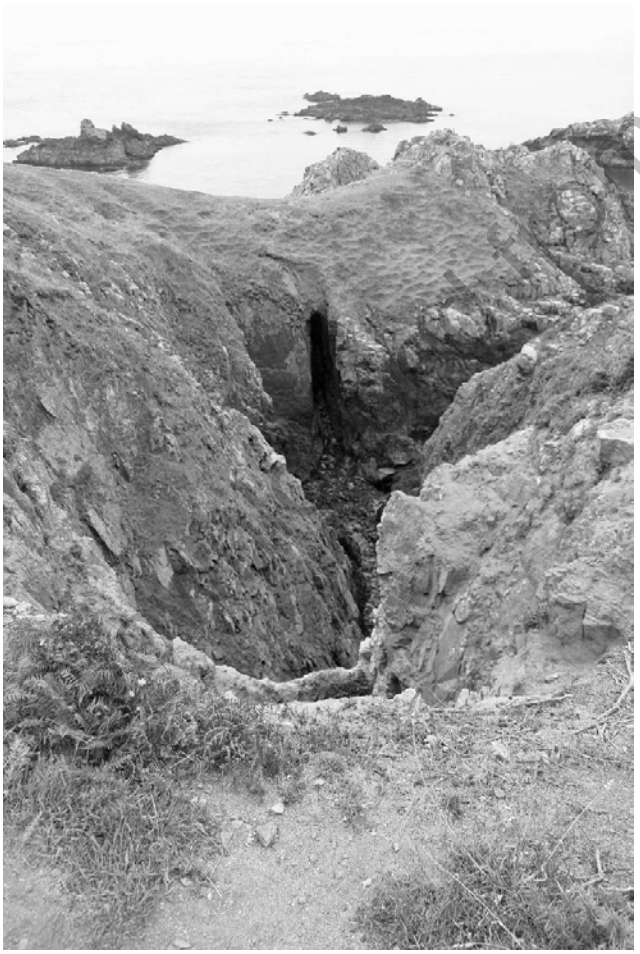


Figure 34. Collapsed site of Sark's Hope shaft with original adit from the sea visible behind, 29th August 2008.

flooding, however, and it was stated that a 230 hp pumping engine was required to keep the working dry. No such investment was forthcoming, and reports ceased in 1842.

Little Sark – Le Pot

Vivian's report of 1836 also referred to the lodes here, work having begun by Cornish miners in 1835, but the early promise was not realised, and by 1838 there was little activity. The silver lode was abandoned, but the intention was to "drive on [the copper] lode, where it intersects Sark's Hope".

Little Sark – Sark's Hope Silver Mine

This was by far the largest mining enterprise in the Channel Islands, with various mine Captains and surveyors from Cornwall enthusing about the quality of the ore. One described its prospects as "more promising than any one that ever came under my notice so much in its infancy", and these positive reports continued to emanate from Sark for several years after Hunt began his involvement.

However good the prospects were, the enterprise was dogged by problems, not least the lack of local labour, so up to 250 people (miners and their families) were brought in from Cornwall to supplement the 70-odd locals, many of whom were not skilled miners and probably worked in the mine alongside their traditional jobs. Many of the Cornish families lived in barracks near the mine which had originally been built at the time of the Napoleonic wars. Some of the wives, together with some local women, became bal-maidens dressing the ore on the surface.

Despite the optimism, the mines proved not to be as rich as was hoped, and the high costs involved in bringing everything to the island and transporting the ore away, meant that the economic prospects of the mine were severely limited. These realities did not discourage Hunt, who raised thousands of pounds from investors within the islands and further afield in the UK. Amongst the most supportive was the Seigneur, Peter Le Pelley, who had granted the rights to Hunt in 1834, but who did not live to see whether his faith in the venture was well-founded; he drowned on his way to Guernsey in March 1839. His brother, Ernest, inherited the fiefdom and pumped more money into the venture, crucially raising funds by mortgaging the fiefdom for £4000 in 1844 to John Allaire, a local privateer.

By 1841, shipments of ore were being taken away for smelting although reports are scant. In August 1841 a shipment was dispatched by the *Lively*, and another by

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the *Veronica* went in June 1842, but not all shipments would have been reported, and one wonders why these two were.

When the ceiling of the mine's deepest gallery collapsed in 1845 killing ten miners, the end was not far away, and all activities had ceased by 1847. Silver ore was assayed at the Tamar Smelting works up to January 1848, and it is likely that this final sample is the last that was sent from Sark.

Ernest Le Pelley died in 1849, and as a result of the collapse of the mining venture, his heir, Pierre Carey Le Pelley was forced to sell the Seigneurie of Sark to John Allaire's daughter, Marie Collings, for £6000. The current Seigneur, Michael Beaumont, is her descendent, his mother being the famous "Dame of Sark".

There was a total of five shafts at Sark's Hope, being (from south to north) Sark's Hope shaft, Footway (a minor shaft, probably mainly for ventilation), Le Pelley's (named after the Seigneur), Vivian's (the main working shaft named after Captain Vivian, whose surveys had done much to encourage Hunt) and Prince's shaft, named after the mine manager John Prince, which was at the junction of the silver-lead lode and the copper lode that ran through to Le Pot. There is evidence of horse whims at Sark's Hope and Le Pelley's (and possibly Prince's), but Vivian's shaft had a substantial pumping engine house, winding engine and associated buildings.

At the south end of the site was the smelter, quay, jetty, narrow-gauge railway, and a wheel-pit. The smelter, which is still extant, was probably used for the calcination of the ore, but could also have been for burning lime. There are few remains of the quay, jetty and railway.

The wheel-pit housed an overshot wheel which was most likely used to drive a crusher, so it would have required a launder to supply the water – there is evidence of a leat a little way to the north. Much of the building still remains, and to the south are some ruins which possibly indicate the site of a horse whim. It is likely that this area was used as a waste dump for Sark's Hope shaft.



Figure 35. Waterwheel pit and remains of crusher, 29th August 2008.



Figure 36. Sark's Hope mine capstan pit near to the Vivian's shaft complex, August 2008. (Photograph courtesy of Pete Joseph)

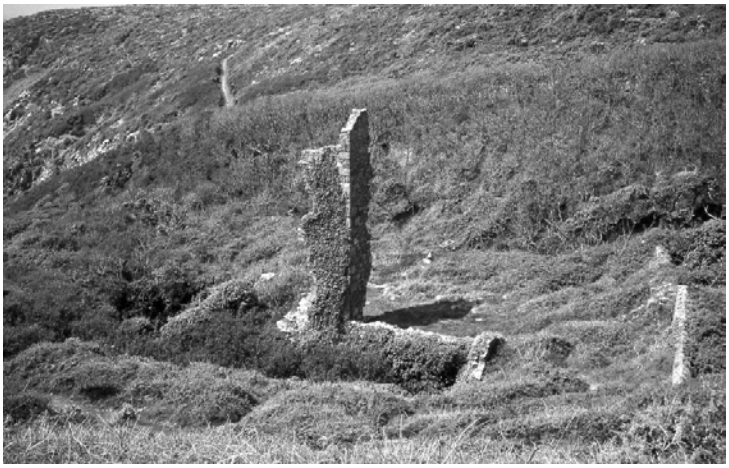


Figure 37. A view of the engine house at Vivian's shaft, and its reservoir (to the right) taken on 10th May 1998. It may be compared with that shown in Figure 28.

The two chimneys above the complex were both associated with Vivian's shaft; the southern one for the winding engine and the northern one for the pumping engine. The winding engine for Vivian's shaft had a

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Figure 38. One of two flues running up to the chimneys on the hill top. This is the one that ran from the winding engine to the southern chimney and is seen on 29th August 2008.



Figure 39. The two chimneys, looking south on 29th August 2008. The far one is for the winding engine and the nearer one is for the pumping engine.

horizontal winding drum. It was reported to have been erected in the summer of 1840, and had two boilers. The remains of Vivian's shaft engine house, the iconic symbol of mining on Sark, have gradually become less imposing over the years, the final collapse coming in the storms of early 2014. The pumping engine house was completed in mid-February 1838, and pumping started in mid-March using a 120 hp engine. In 1844, a 230 hp pumping engine was installed, and the boilers were modified to supply steam to the winding engine so that fuel could be saved.

Behind the engine house are two reservoirs, the primary (western) one possibly being used for dressing water, and the secondary (eastern) one probably being used as the engine pond to supply the boiler at Vivian's shaft. It is possible that the overshot wheel was fed via a launder from here.

Apart from the remains visible on the ground, there is little else to commemorate the Channel Islands Mining Boom. A silver nugget is on show in the small museum on Sark with other mineral samples being held at the Guernsey Museum. Contemporary reports say that a tea service was made from Sark silver and displayed at the Guernsey office of the Sark Mining Company in order to publicise the workings and drum up sales of shares, but its whereabouts are now unknown. In 1837, a medal of Sark silver was presented by John Hunt to Her Majesty's Procureur, Charles de Jersey, and was gifted to the Lukis and Island Museum in 1956, but it was reported as stolen in 1970! The only other known piece is a tie pin, last reported as being held by Guernsey Masonic Museum.

Finally, in this year when the BBC's adaptation of Winston Graham's Poldark novels has revived an interest in Cornwall, mining and topless scything, it is interesting to note that it was not the first tale of love, murder and intrigue to be set against a background of metal mining. *A Maid of the Silver Sea* by John Oxenham was published in 1910, and told the tale of a Cornish mine manager who is wrongly accused of killing a Sark girl's father and brother. It can be freely downloaded from the internet but, sadly, the silent movie made in 1922 and based on the book appears to have been lost.

Principal References:

Several articles have been published on the subject of mining on the Channel Islands, and many are available on the internet. However, there are four major articles, none of which is currently available this way:

1. Kellett-Smith. S. K., *Quarrying and Mining on Herm and Jethou*, Report and Transactions of La Société Guernesiaise, Volume **17**, Part 2, pp 246-263, 1961
2. Kellett-Smith. S. K., *More on the Herm Mines*, Report and Transactions of La Société Guernesiaise, Volume **22,** Part 1, pp 91-96, 1986
3. Laffoley, Nick, *A History of Mining on Sark and Herm, Channel Islands,* Bulletin of the Peak District Mining Historical Society, Volume **9**, Number 4, pp 201–227, 1985
4. Mourant, Arthur and Warren, J. P., *Minerals and Mining in the Channel Islands*, Report and Transactions of La Société Guernesiaise, Volume **7**, Part 1, pp 73-88, 1933

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Milk; from Farm to Consumer

Tony Yoward

Up to the mid-1800s, milk was sold locally in the markets and the summer was the cheese making season when there was a surplus of milk. A cow delivered about 1.5 gallons (6.7 l) per day then.

Dairying was a cottage industry throughout historical times until the middle of the nineteenth century. Country people kept a cow per family and in built-up areas cows were kept at the back of shops, in yards or stables in order to supply the urban population; the start of dairies in towns. The cows were changed at intervals, being returned to the country to "recuperate" and to bring in a fresh cow. One can only imagine the amount of hay and straw needed to feed these cows and the amount of dung that had to be taken out and added to that from the hundreds of horses already working in the cities.

However, in 1865-6 a plague of Foot and Mouth disease in London swept through the London herds causing a shortage of milk. Later, in the 1890s and 1911 there were some very hot summers during which one-in-five infants died because the milk had become bacterially contaminated. There was no refrigeration during transport and the milk was delivered 'loose' to customers.

Louis Pasteur, a French microbiologist, conducted the first pasteurisation tests in 1862. Pasteur is credited with revolutionizing the safety of milk and, in turn, the ability to store and distribute milk well beyond the farm. Commercial pasteurization machines were introduced in 1895. The milk was pasteurised by HTST (high temperature short time) where milk is forced through pipes, which are heated to 72 °C, for 15 seconds. It is then sold as pasteurised milk. The UHT (ultra-heat-treatment) process holds the milk at a temperature of 140 °C for four seconds. By this process the milk is sterilized, not pasteurized, allowing the milk to be stored for several months without refrigeration.

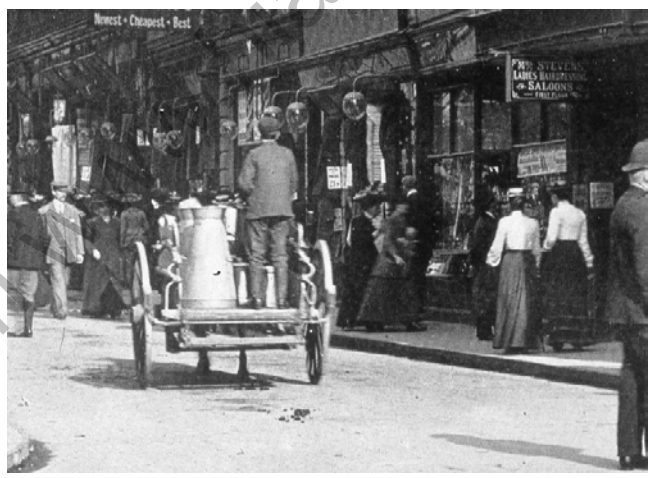


Figure 40. The delivery of 'loose' milk in churns. (c1910)

TRANSPORT

The rapid development of the railways enabled milk to be transported from the countryside to the towns. Specialised companies were formed, which bought the farmers' milk, transported it to the cities and distributed it to their customers.

In 1859 the Salisbury and Yeovil Railway was completed and Semley Station was opened. It became part of the London and South Western Railway in 1878. Semley station is in Wiltshire, about 3 miles north-east of Shaftesbury in neighbouring Dorset.

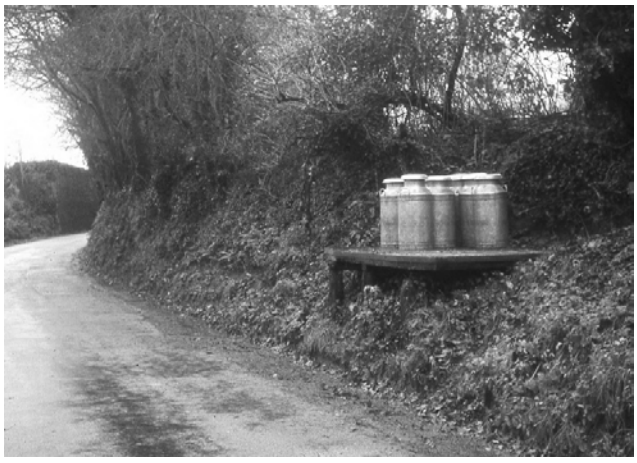


Figure 41. Churns awaiting collection by the side of the road.

Until the commercial possibilities of the railway came to be appreciated, the lives of most people in the Semley area were dominated by dairy cows. Even the pub landlord and the vicar kept cows. Practically the entire local population survived either directly or indirectly on cattle - much of the farmland here was unsuitable for arable crops. The surplus milk they produced was generally made into cheese, but the railway brought big changes;- it gave farmers the opportunity to sell their milk more profitably in liquid form.

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About 1871 Thomas Kirby started a business close to Semley railway station buying milk from local farms and sending it to London for sale. London is about 100 miles by train and a fast milk train could be there within three or four hours. So the delivery from farm to customer could be accomplished well within twelve hours. By 1880, the market leader, Express Dairies, was moving 55 000 gallons of milk each day, requiring over 3 000 churns.



Figure 42. A covered churn stand to shade the churns from the sun



Figure 43. A churn stand made from old railway sleepers



Figure 44. A Derbyshire churn stand

At the farm the milk was put into churns which the farmers took to the station, or they put their full churns by the roadside where they were collected from farms each day by motor transport which would leave clean empty churns ready for next day's milk. From about 1920 it would have been the dairy's own lorry. Every dairy farm had its own milk-churn stand at the roadside, all at the same height as the lorry so that the churn could easily be rolled on board. Churn stands were structures of individuality, every farm had a different model, its size, shape and materials being largely the choice of the farmer. There was often a combination of materials; wood, brick, concrete, steel, local stone or even railway sleepers.

For transporting milk, large conical shaped churns were used - made so as to give them stability - containing 17 gallons (76 l) of milk each. These were collected from local farms and delivered direct to London, where there was a ready market. These churns were replaced in the early 1900s with steel 10 gallon (45 l) churns which could be packed tighter in transit and again, in the 1950s, with lighter aluminium ones. Humping of churns, even empty ones, was labour intensive and as labour costs rose so did the relative cost of milk production.

Kirby's depot was the first in Wiltshire serving primarily the London market. He expanded his business in the 1880s with other depots in south Wiltshire and Dorset and, in 1890, it became the Salisbury, Semley and Gillingham Dairies. In 1920, the business was bought by United Dairies (Wholesale) Ltd. who added a factory at Semley in 1924 and, by 1928, milk was being pasteurised and stored. Cheese was also made there. Semley was the first depot in the country to store milk in bulk and keep it cooled.

In 1927 specially made huge glass lined rail tanks, each holding 3000 gallons, were being used from Semley and from Cheshire and these slowly replaced churns. At Semley in the 1950s and 1960s milk was collected and

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cooled in the factory and was then carried by glass pipes over Station Road to rail tanks for the onward journey to London. Between the wars more milk left Semley station for London every day than from any other station in the country.

In the 1920s farmers were independent, disunited and often could not find a customer for their milk so the big companies could dictate the price. The Agriculture Market Act of the early 1930s enabled the farmers to form their own marketing organisations and in 1933 the Milk Marketing Board [MMB] was born. All dairy farmers had to join the Board which guaranteed a market for all the farmers' milk, negotiating the price and arranging its transport.



Figure 45. Milk collected from the farm is delivered to the dairy (c1960)

Milk being delivered direct to homes is a long-standing tradition in Britain and, by 1921, pasteurised milk in bottles was the norm, in place of loose milk deliveries. However, loose milk continued to be delivered until after World War 2. I can remember we had milk delivered loose by horse and cart from the farm each day, by the farmer's son. It was delivered to the back door into one of our jugs by a pint or half pint measure dipped into the milk can, stirred to distribute the cream, with the reserve in a churn on the cart. The horse was usually a younger one that could be persuaded to trot on his round. I often had a ride on the cart for an hour or so, as milk was delivered to other parts of the town.

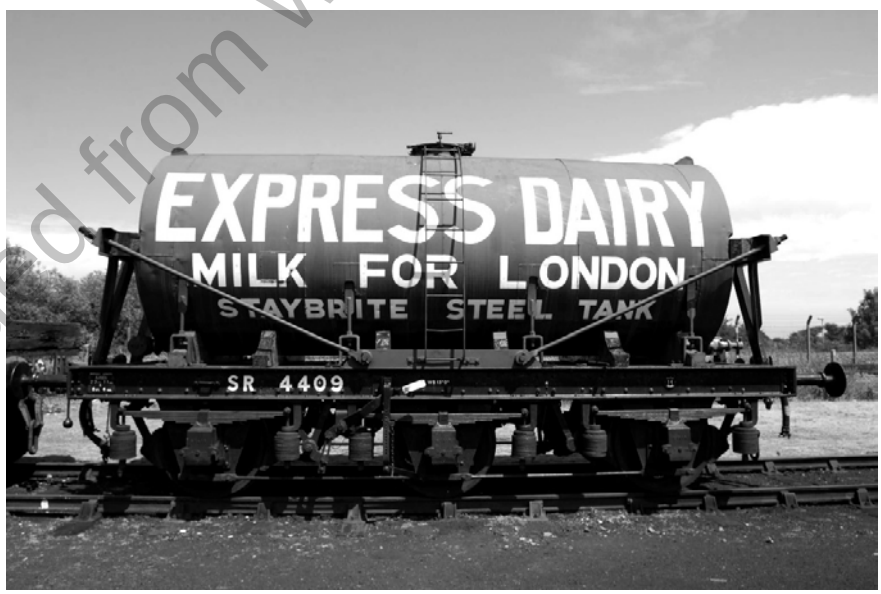


Figure 46. A six-wheeled rail tanker for the carriage of milk

As a boy in Swindon in the 1930s, I watched lorries delivering milk churns to a siding just outside the station late at night. They were loaded into rail wagons which were constructed with every other plank removed so that as it sped to London the milk would be kept cool by the cold night air rushing round the churns. The operation was quite noisy and one could hear the churns banging together two or three hundred yards away well after midnight until the milk train left for London.

Then came a complete change; road tankers collected the milk direct from the farm, where it was stored in cooled storage tanks, straight to the dairies.

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Figure 47. A 'milk-lady' in World War Two

In 1950 the MMB arranged for insulated tankers to collect from farms, thus removing the labour intensive moving of milk in churns, but churns continued to be used until early 1960s. By 1978, the entire collection was by tanker from the farm, with the cooled milk stored in bulk at the farm.

The result was hundreds of thousands of redundant milk churns. Where did they all go? Many were sold abroad where they continued to be used for their original purpose but a few remain visible when occasionally we may see a churn for sale at an antique shop, but more often they are used for publicity purposes outside farms, B&Bs and other tourist facilities and there are always one or two on the platform of heritage railway stations.

And what about the redundant milk stands? Nearly two hundred thousand in the UK are the redundant relics of a nationwide industry and the lone reminders of what was once a busy spot in the countryside twice a day, every day. They have no use now and the solidly built ones are likely to remain, like Stonehenge, silent sentries of the past for quite a while. The more fragile ones have already disappeared.



Figure 48. Direct collection by tanker from refrigerated storage on the farm

In 1965, the Milk Marketing Board decided to withdraw all milk from the Semley depot, bringing to an end nearly 100 years of local employment in milk distribution. The last rail tanker of milk left on 30th Sept 1965 and the last milk tanker left Semley for London by road in the same year. The factory was then converted to a milk powder production factory. British Rail closed Semley railway station in 1966.

The Milk Marketing Board was abolished in 1994 and the dairy farmers have had to return to the 1930s, when the price of milk to the producer is being reduced to the point where production is uneconomic, forcing dairy farmers out of business or to turn away from dairy to arable farming. But that is another story.

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