

MINING ON SARK - THE FRENCH CONNECTION

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ABSTRACT: Further information concerning the end of the lead-silver mining operation on Little Sark, Channel Islands, is presented. The mine operators were obviously aware of other lead-silver operations in north-western France, and the promoter of many of the Channel Islands ventures, John Hunt, took out a lease on the old lead-silver mine at Pont-Péan in France in 1842. Subsequently, in 1851 a company was formed to operate the mine, and many of the shareholders were from the Channel Islands. Some of them had been directors of the Sark Mining Company. The operation had mixed fortunes, but was obviously a profitable operation despite considerable disagreements between the French and British shareholders as to how the mine should be run. Ultimately, the lack of clear direction in the management led to the formation of a new company in 1879, in which Channel Islands and British names no longer figured.

INTRODUCTION

In 1985, I wrote an account of mining on Sark and Herm in the Channel Islands (Laffoley, 1985). At that time it seemed as though that was the end of the story, despite conflicting reports of the reasons for the final demise of the operations on Sark. The publication of the paper coincided with my extended absence from the country, and so it was not until early 1986 that I read PDMHS Newsletter No. 36 in which Mme Anne Brulé of Vitré in France asked for information on silver-lead mines in Britain. Apparently the British connection was of special interest because it was British engineers and capital that was used to re-open the major Pont-Péan mine in north-west France in the 1850's. I therefore duly wrote to her, sending her a copy of my paper.

To my astonishment, when Mme Brulé replied to my letter, it turned out that many of the British shareholders were in fact from Guernsey and had been shareholders of the Sark Mining Company. This stimulated me to undertake further research, and Mme Brulé subsequently published a history of mining in Brittany (Brulé, 1988). In the following account, unless otherwise stated, the information is drawn from written communications with Mme Brulé and her book (Brulé, 1988).

I had originally intended only to concern myself with matters directly relating to the Guernsey shareholders, but the story of the Pont-Péan mine proved to be of greater interest, and so I have taken the opportunity to translate sections of Brulé's (1988) work to make it accessible to a wider audience. Any errors in translation are my responsibility. It must be one of the more unusual stories of riches to rags, and then riches once again.

THE DEMISE OF MINING ON SARK

The author pointed out in 1985 that reports of the reasons for the demise of the mining operation on Sark were contradictory. However, further research fails to support either the loss of a load of ore in a shipwreck or the collapse of the deepest level of the mine, drowning ten men, as reasons for the failure (Gibbons, 1975). Nevertheless, it is possible to speculate as to how these two stories may have arisen.

There are no contemporary accounts of the shipwreck, and the earliest published reference to it is in Barnes (1890). However, the following note in the Mining Journal suggests

how the story might have arisen, and the date would be approximately correct: 'VESSEL WRECKED WITH SILVER-LEAD ORE.- During the storm of Saturday last, the 21st inst., about three o'clock in the morning, the Devon (Capt. Beer), with a rich cargo of silver-lead ores, the produce of East Tamar and Holmbush previous sales, consigned to Mullins, Brothers, and Co., London, smelters, was driven over to the French coast, and became a wreck: crew saved, and the cargo insured at Lloyd's' (Mining Journal, 1846d).

With regard to the question of flooding, whilst it is clear that there was some sort of an influx of water into the workings in 1846 (Mining Journal, 1846c), there are no records of the death of ten miners. A disaster of such magnitude would surely have been reported in the pages of the Mining Journal, since accidents in the Channel Islands do appear (e.g. a near fatal mishap at Vale Quarry, Guernsey - Mining Journal, 1846b).

Prior to the start of 1846, some of the proprietors apparently became discouraged, and accordingly called in a gentleman in Guernsey who was reported to be a dentist and an expert in mineralogy and the mining. He had previously been a shareholder, but had got rid of his shares. He apparently stated that although the ore was rich, and that the works were scientifically and judiciously managed, there was basically insufficient ore to make the operation profitable. This understandably caused great consternation, and the share price dropped. The mine then fell into the hands of 'English capitalists', although whether these were the English members of the original Board of Directors, or new Directors, is not clear (Mining Journal, 1846a). Inconsistencies in this last report do, however, suggest that it may not be a reliable documentary source.

In the end, it would appear that the mines just could not make money, and that the expenditure required for further pumping equipment was not justified (e.g. De Quatrefages (1854)). The mine probably finally failed some time during 1846, under English management, and the Guernsey Directors had withdrawn at some time previously, in 1844 or 1845.

PONT-PÉAN BEFORE THE CHANNEL ISLANDS: 1730 - 1842

In 1841 mention was made of the similarity between Sark's Hope Mine and a silver mine in Brittany which had been

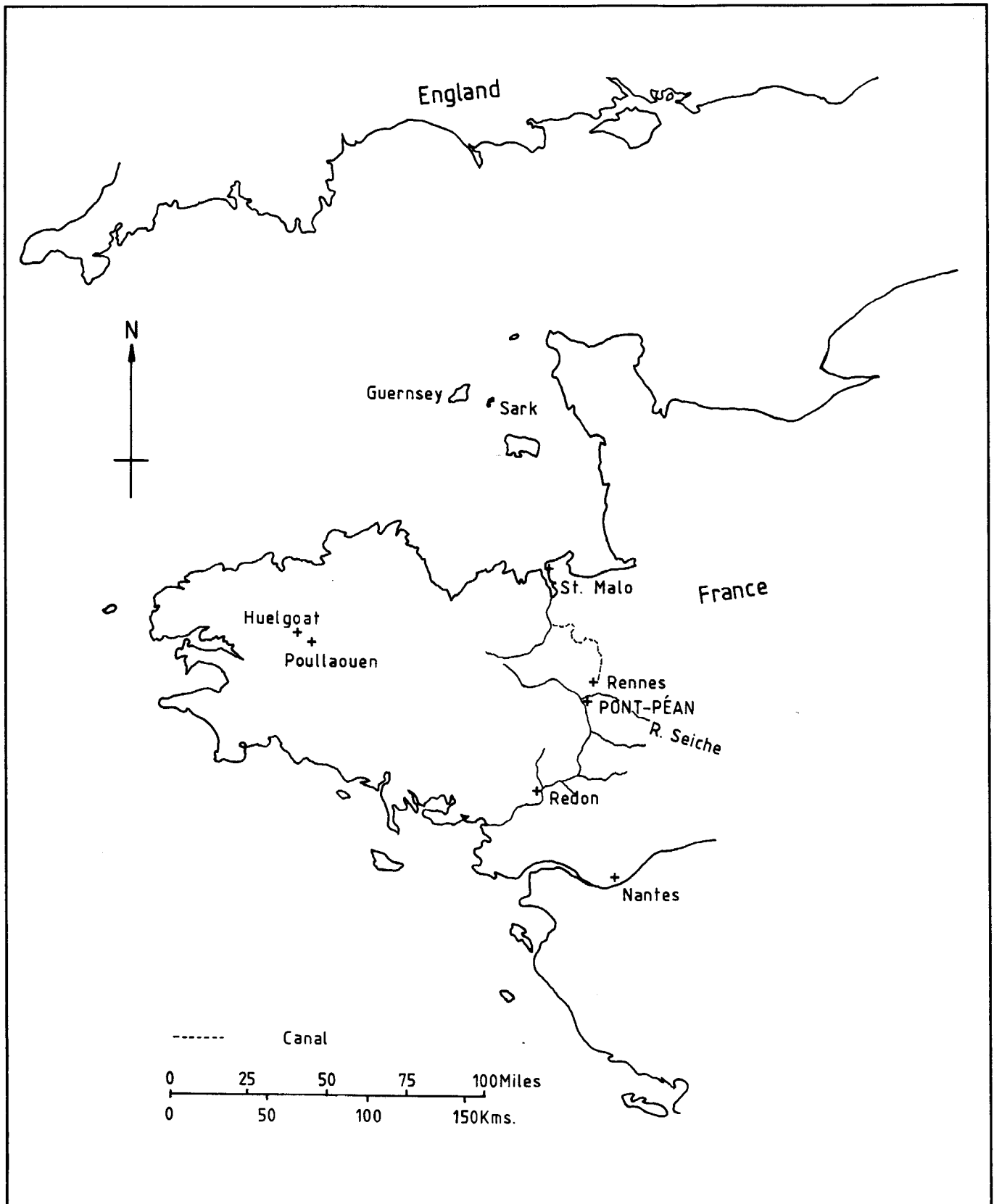


Fig. 1. North-west France and the Channel Islands with locations referred to in the text.

producing a profit of £50,000 per an num '... for some time past ...', and it was stated that from the direction the Brittany vein beared that it was '...not unlikely to be a continuation of the same vein, as mineral veins have been traced to much greater distance than that between Sark and Brittany' (Mining Journal, 1841). Although they had been inactive since 1798 (or 1794 - Mining Journal, 1842), it seems likely that the mine referred to was the argentiferous

lead mine of Pont-Péan, which was the only substantial silver mine in the area. The only other substantial mine, Le Huelgoat-Poullaouen, operating at this date was much further to the west and it is highly unlikely that it would have been considered as a continuation of the Sark's Hope structure.

At Pont-Péan the ore was mined from orebodies located within a major fault zone, trending approximately NNW

within Precambrian schists. The principal orebodies came from a laterally persistent fault that was known as the 'blue clay'. The sections in Brulé (1988) suggest a normal fault system with the downthrown eastern block covered by Oligocene clays, sands and limestones. A significant dolerite dyke is associated with the fault zone. The mine area is unconformably overlain by alluvium, silts and gravels.

Pont-Péan mine operated sporadically from 1730 (or 1732 - Mining Journal, 1842), but between 1794 and 1798 work came to a halt due to taxation, the requisition of lead for the civil war that was raging at the time, and the inability to obtain from England the steam engine necessary to continue working at depth (due to the blockade then in force). The mine had certainly been very rich (Table 1), and in its last years of operation the annual receipt was 274,000 Fr. (about £11,000) when the expenses, including the machinery which was at that time very expensive, came to less than £8,000. And all this was without recovering any of the zinc and only recovering some of the silver as a by-product of the lead! (Mining Journal, 1849).

The mine was then sold, and subsequently inherited by a merchant from Rennes, one Mr. Couannier. As a result of a law passed in April 1810, he found himself obliged to bring the mine back into operation or lose the mineral rights. Couannier tried to set up a company to work the mine, but with no success, although it must be remembered that there were severe political and economic difficulties within France at this time and it was very difficult to attract local capital. But he was obviously a very determined man, and his efforts are described in detail by Brulé (1988).

Despite this lack of success, Pont-Péan was the site of one interesting experiment. The Normandy industrialist, Boucher, who had specialised in the manufacture of needles, was forced to abandon his brass wire factory in 1817 which he had built about ten years previously at Jemmapes. This was land that had been annexed by the Republic, and which contained deposits of calamine (smithsonite or hemimorphite), an indispensable mineral for brass manufacture. Boucher was therefore obliged to look for a source of zinc within France. He was an influential person, a member of the Manufacturing Council, and with the assistance of the Mines Administration and the famous chemist, Berthier, he succeeded in successfully making brass with sphalerite from the Pont-Péan halvans (waste dumps). However, operations did not take off at Pont-Péan because it lacked the other essential ingredient for the process - coal (Brulé 1988).

PONT-PÉAN AND JOHN HUNT: 1842 - 1851.

Brulé (1988) notes that prior to the French Revolution, capital for the working of Pont-Péan and Huelgoat-Poullaouen had not been obtained locally, but had instead come from Paris and Geneva, the seats of banking and finance. In addition, there was great British interest in the potential of northwestern France, and British experts were to be found all over assessing and evaluating sites up until the 1880's when the Belgians moved in. It would appear that the British were respected for their technical competence, and they were also maybe looking for lucrative uses for English coal. Between 1844 and 1854, the majority of the dressed ore from Pont-Péan was sent to the smelting works at Tamar, Combmartin and Newcastle. Later, whilst the galena was treated by the Laveissière works in Rouen, the sphalerite was still purchased by Dillwyn of Swansea.

It is thus not surprising that Couannier, in his search for capital, should look overseas. By the 1840's the 'Channel Islands Mining Boom' had become well-known in France, and during 1842 he approached John Hunt of the Sark Mining Company with a view to bringing Pont-Péan back into operation. Hunt visited the mine several times during the year, and on August 23rd, 1842, leased the mine from Couannier for forty years, with an option to renew the lease at the end of that period for a further forty years (Mining Journal, 1842). Couannier was to get 10% of the net profits, and in return Hunt had two years in which to get the mines running again or else the lease would be terminated and 10,000 Fr. paid to Couannier (Brulé 1988). The concession extended for eight kilometres over 60 hectares. Hunt ascertained that the mine could be brought back into operation for only a very small capital outlay due to very fortuitous circumstances:

Firstly, prior to closure the mines had been drained by hydraulic machinery. The mine had been so well worked that once a steam engine had been erected and the water drained it would be possible to start underground operations immediately. The vein varied from 18 to 30 yards in breadth, and during its last period of working the ore had yielded 'about 65% lead and about 30 oz. of silver per ton'. As a result much rich ore, then considered as waste, had been left in the levels. In the 18th century the level had been worked for a length of 250 metres, but had not been worked further because of problems with the water. Hunt ascertained that the vein extended a further 2,400 metres from the point where the workings stopped! And then on dewatering it was found that the mine waters had been impregnated with zinc sulphate which had '...preserved the woodwork of the galleries in the most perfect state.'

Secondly, on the surface many thousands of tons of sphalerite had been thrown aside as worthless, from which a considerable quantity of zinc could be extracted. Also it was found that the slag from the 18th century smelting still contained much lead which could be easily and profitably extracted. The surface halvans, amounting to some several thousand tons of argentiferous lead, had become oxidised during the fifty or so years since their abandonment making their treatment particularly easy because the galena had been converted to anglesite.

Finally, the mine was in an excellent position. It was situated eight kilometres from Rennes, near the main road to Nantes, and was also on the banks of the River Seiche which afforded communication with the ports of St. Malo and Redon (Mining Journal, 1842, 1845).

The local Press in Guernsey commented that '... some of our island capitalists are about to embark with Mr. Hunt in this undertaking' (Mining Journal, 1842). Hunt made a further contract with Couannier on June 13th, 1843, which gave him the right to treat the surface halvans at his own cost, in exchange for which right he was charged with the responsibility of forming a company to finance and recommence underground operations.

Surface operations commenced in 1844, and in 1845, by means of only twenty-five workmen, 24,000 lb. of washed ore was being produced per month, yielding 60 to 65 lb. of lead per cwt' (Mining Journal, 1845). The number of workers was subsequently increased to seventy.

The formation of a company, however, met with less success despite Hunt's obvious technical competence and public

relations skills. Hunt initially (1844) appealed to local capitalists by way of various publications, but with no success. He then approached the 'Compagnie des Cabinets-Unis', which had offices in La Rochelle, Bordeaux and Saintes (1849), but with no better success. According to estimates of the time the ore would have yielded at least 378,952 Fr. (£15,158) per annum, giving a net profit of £6,558 after deduction of all expenses (Mining Journal, 1849). The Chief Engineer of Mines, Monsr. Mathieu, visited the mine some time prior to September 1849, and he reported that the vein exposed in the 18th century workings would yield about 10,980,195 Fr. (£439,208), and that the ore would be accessible as soon as the workings were dewatered. He estimated that a steam engine of 60-horse power would be sufficient, and would allow the mine to be worked to a far greater depth (Mining Journal, 1849). Hunt himself calculated that a capital of 300,000 Fr. (£12,000) would be necessary to resume the workings by the new company, which was being reorganised, and that in all probability the calls would not exceed £8,000. A company thus formed, with a capital of £12,000, would immediately obtain from the proprietor (Couannier) the concession of this mine, consisting of all the former works and superficial erections, with the right of working the level, and to extend the workings more than eight square kilometres, on condition of his receiving 1/10th of the net profits, and a certain number of shares, for the advantages that he gives up to the company' (Mining Journal, 1849).

The first moves to obtain capital from England did not meet with much success, as there was a movement to withdraw English capital from France in the years preceding 1848. So Hunt eventually turned to Guernsey and the former shareholders of the Sark Mining Company.

PONT-PÉAN AND THE BRITISH DIRECTORS: 1851 - 1879

Eventually the company, 'la Compagnie pour l'exploitation de la mine de Pont-Péan, was formed in December 1851 with a capital of 100,000 Fr. in 40 shares, 80% of which was provided by British shareholders. (The term 'British' is used here, even though the majority of the shareholders were undoubtedly from Guernsey. Nevertheless, the proportion of Channel Islanders is not known and the contemporary records do not differentiate between Channel Islanders and those from the mainland, hence the use of the more general term). Three Guernsey merchants, Thomas Dobrée Uttermack, Deric Carey and Collings junr., travelled to Rennes to sign the transfer of the lease. Table 2 shows that some of the British shareholders were in fact former directors of the Sark Mining Company, and that many other Channel Islands surnames are represented. In 1852 the share capital was increased to 250,000 Fr. and underground work by the 'Société en Commandite pour l'Exploitation de la Mine de Pont-Péan' recommenced in 1855, after the acquisition of a steam engine and the reopening of the eight shafts in 1853. In 1855 there was a further increase of the capital which strengthened the British leadership (Brulé, 1988).

Despite frequent interruptions and production problems, the operations grew systematically between 1844 and 1870, and were far from small. Between 1844 and 1853 the rental increased exponentially. In 1867 the mine engineer in charge of the operation calculated that the average profit during the years 1846 to 1863 was 21,347.61 Fr. Brulé (1988) estimates the annual capital investment during the same period to be 26,041.25 Fr, to which must be added the dividends

distributed amongst the shareholders: 40,000 Fr. in 1858/59, and 50,000 Fr. in 1863 and 1864. Precise figures for the dividends between 1864 and 1874 are not available. In addition, 250,000 Fr. in exceptional dividends was distributed amongst the shareholders between 1872 and 1874. The results were indeed satisfactory, and the mine was producing.

From the technical point of view, the operations were not so successful. By the early 1870's the winding engine was at the limit of its capabilities (240m below surface), the pine pumping rods were damaged and could not be repaired since there was not a second pumping machine to take over, and the deepest levels, (around 300m below surface) could only be accessed by ladders, a long and tedious business. The good financial results only occurred because of a number of happy accidents: the deepest level of the former workings, at 140m was found to be intact and immediately useable; soft masses of galena and sphalerite were found at shallow levels that were easily and cheaply extracted and treated; and the discovery, later, of the important North orebody at a time when the silver prices were elevated at the start of the 1870's. During the years 1872 to 1875, the grade increased progressively from 406 g/t to 1,046 g/t. Brulé (1988) describes some of the technical problems in detail.

Hunt disappeared from the scene in 1855, and his brother-in-law, one Lukis, left the board of directors of Pont-Péan during the same year, to take up a position on the board of directors of Pontgibaud Mine, Puy-de-Dôme. The new company created a surveillance committee to oversee the Franco-British duality (Table 3), and again Channel Islands surnames figure prominently. (Lukis may have been John Walter Lukis, who sent large quantities of ore specimens from Brittany to his father Frederick Corbin Lukis (1788-1871) in Guernsey. It is possible that these collections may still exist in Guernsey. J. W. Lukis was Vice-President of la Société Scientifique de Morlaix from 1879 until his death in 1894. Dr. A. Mourant, written communication).

However, despite the preponderance of British shareholders, actual day to day working of the mine was undertaken by the French shareholders, due to their proximity to the operations, through the intermediary of a body known as 'le Comité de Rennes'. The French directors, however, despite the obvious benefits, refused to augment the capital as the British directors proposed and restrained investment in machinery and exploration work as far as possible. Presumably the French shareholders were comfortable with their dividends. In 1864, the British shareholders proposed, with no success, that the working capital be increased to 1,200,000 Fr., which in view of the potential of the property, was reasonable.

In 1864 a new director was appointed, Frédéric Saumarez Brock, nephew of one of the British directors, but there was little change in the situation, and 'le Comité de Rennes' continued to block all developments. This even extended to not allowing the water supply for the boilers to be modified to use water from the nearby river Seiche, as recommended by the mine engineers. Instead, for over twenty years the boilers used water pumped from the mine until the encrustations inside were sometimes as thick as 17 cm. Moreover, when the Orme orebody was exhausted in the mid-1870s, they even proposed that the mine be closed without undertaking any further, albeit costly, exploration.

The mine also had technical problems. The mine site was regularly flooded in winter. Also the vein was overlain by the Tertiary sands of the Rennes basin, which made workings and shafts unstable, as well as presenting the risk of

inundations. The problems of mastering these natural challenges and new technology led to a very high turnover of supervising mining engineers: nine in ten years (Brulé, 1988). The mines at Huelgoat-Poullaouen used hydraulic power, and this undoubtedly inspired some of the cumbersome engineering efforts at Pont-Péan, which possibly delayed the discovery of the North orebody by nearly twenty years.

TABLE 1. PRODUCTION OF PONT-PÉAN MINE

Year	Argentiferous ore (kg)
1789	660,200
1790	656,050
1791	682,150
1792	778,863
1793	662,750

Average yield per quintal

	Quantity	Value (Fr.)	Value (£)
Lead	32 kg	250,000	10,000
Silver	250 gm	24,000 (est.)	1,000

Source: *Mining Journal*, 15/9/1849

TABLE 2. DIRECTORS OF THE PONT-PÉAN COMPANY (1852)

British	French
Carey	Paul Duplessis
Colonel James Priaulx	Mitoufflet
Thomas Dobrée Utermarch*	Baudry
Thomas Priaulx*	Couannier
Joseph Collings	A. Marteville
Joseph Priaulx	L. Blaise
Ollier Clementson	Gagneux
Colonel de Lancey	
Thomas Mancel	
Hutchesson	
Thomas Hutchesson	
John Mesurié	
John Hunt*	
Lukis	
80% of capital (200,000 Fr.)	20% of capital (50,000 Fr.)

* former director of Sark Mining Company

Source: Brulé-Garçon (1982)

TABLE 3. MEMBERS OF THE FRANCO-BRITISH SURVEILLANCE COMMITTEE OF PONT-PÉAN MINE

	British	French
1855	J. Hunt J. Priaulx J. Collings Joseph Priaulx Utermarck	A. Marteville Mitoufflet L. Blaise
1864	John Ollier David Drackfort Joseph Collings Joseph Priaulx	J. L. Ménard A. J. Péan A. Marteville

Source: Brulé-Garçon (1982)

Farcot, one of the best French engine makers of the time, recognised the serious problems faced by Pont-Péan. In 1856, to make up for the deficiencies of the Newcastle engine, a new engine that had been demonstrated at the Universal Exhibition in Paris in 1855 was installed by him. This had a 65 cm cylinder with a 1.3m stroke and was installed at the Républicain shaft where it had the near impossible task of driving the pumps in the shaft, the crushers, a ventilation fan and also the hoist through a system of clutches and belts! The experiment did not last long. Hoisting soon stopped as clutch slippages led to numerous falls of rock in the shaft. As a result, Farcot had to provide another engine, free of charge. The 'Little Farcot' successfully hoisted the Républicain shaft until 1876. Subsequently, the main engine - the 'Big Farcot' - ceased to drive the fans, and the pumping arrangements were also hardly satisfactory. The pump system set up great stresses due to the reversal of forces during a complete pump cycle, and the frequent damage that resulted would stop both the pumps and the treatment plant. During repairs the water level would rise, causing settlement of the Tertiary sands, and dewatering could take several days as the capacity of the pumps was only slightly greater than the inflow.

In the face of all these setbacks the 'Comité de Rennes' was eventually persuaded to put a second pumping engine on the Députés shaft in 1866. And this only after repeated interventions by Massieu, the District mine engineer, and Grüner, professor of mineralogy at the School of Mines in Paris. The engine was provided by another French manufacturer, Poynot. Poynot was not a specialist firm, and provided a direct acting engine which was widespread in the coalfields. It turned out to consume much more coal than originally expected (2.71 kg of Cardiff coal per hour per horsepower, instead of 1.5 to 2 kg). The reason for this is that the rods were insufficiently heavy to pull the piston back to the starting position, and the machine was unbalanced. The manufacturer could not improve the situation, and the disequilibrium could not be improved, and there were numerous breakdowns which led to stoppages during the repairs. One further problem was leakages from the rising main which was made of easily corroded rivetted sheet steel, instead of the more usual cast iron.

In 1867/68, the newly sank Midi shaft was equipped with a second-hand Cornish engine from Hayle, and this engine performed perfectly until the closure of the mine in 1904. The return to proven engine technology after the experiences with the new French engines was a total success, but after the problems experienced with the original British engine from Newcastle, the desire to use French engines was perhaps understandable.

In 1879, a Belgian engineer, Charles Eloy, who had been working at Pont Péan since 1864, became director. He was a man of great energy, intelligence and competence. In 1875 he had started to place the mine onto a sound technical footing. This had included the exploration of the deeper mine levels by drilling, leading to the discovery of the North orebody, and the purchase of a new winding engine in 1876, manufactured by Libert, capable of hoisting a 1,000 kg load from depths of up to 500m. This increased productivity by 40%.

From 1873/74, Eloy had also sought to widen the audience of the operation, and to acquire more active and powerful shareholders. The first people he persuaded to participate were the Belgian industrialists, the firm of Dumont Frères. They were specialists in the treatment of galena and sphalerite. G. Dumont visited the mine in 1874, and he was

so struck by the lead and silver grades of the tailings that he purchased the whole lot, which immediately improved the liquidity of the company. Furthermore, Dumont became directly involved in the company, and it was he who persuaded the shareholders to buy the new Libert machine. This was funded by the issue of 240,000 Fr. worth of bonds guaranteed by Gicquel, a Rennes banker.

Ore sold increased by nearly 60% over the next ten years. However, the marked recovery of 1876/78 could not prevent the crisis of 1877. On the 31st of March the liabilities of the mine rose to 256,350 Fr., and by July they stood at 300,000 Fr. as everyday expenditure exceeded income. Production levelled off, and then Dumont had to suspend the cash advances which he was making against the ore reserves. These advances were what had been providing the working cash. Then Gicquel threatened to do the same.

Paitel and Cazo, the overseeing directors in Rennes, therefore rushed to Guernsey and persuaded the principal shareholder, Colonel Priaux, to sell 380 of his shares, and to provide guarantees of 200,000 Fr. per year, for two years, to the Rennes banker. Once again disaster was averted, but it was becoming clear to all that the mine could not go on surviving in this fashion. Eloy, with support from Dumont, persuaded Gicquel that the whole nature of the company had to change. Then he succeeded in enlisting the support of Edgar Le Bastard.

Le Bastard was a prominent figure in Rennes. He had been a member of the Chamber of Commerce since 1872, becoming its president in 1877. He took up the position of assistant mayor in 1870. The Belgian industrialist and mine engineer, guessed that with him at the head of the Company progress would speed up. Le Bastard accepted the post of President of the Board of Directors of the future Limited Company. His presence became even more important when he became senator and mayor of Rennes in 1880. The mine therefore achieved a much higher profile and the way was smoothed towards the transformation of the Company.

In 1880, the Board of Directors took its final form: Its principal members were influential business personalities of the Rennes bourgeoisie, François Doret, Picard the iron merchant, Guy the smelter, and the timber merchant Bossard. Two large landowners were also appointed, Maxime de Coniac and the Vicomte de Legge de Kerléan. The capital of 2 million shares was subscribed without any problem, and it appears that most of the shares were taken up locally. The British directors were removed or retired without any legal proceedings, to the profit of local prominent citizens, and Eloy took over from Frederick S. Brock as the director of the operation. This brought to an end a thirty-five year connection between Pont-Péan and the Channel Islands.

It is worth noting that Pont-Péan, under the directorship of Eloy, then underwent a golden period which lasted into the 1890s, during which it became the leading argentiferous lead producer in France. Total production is estimated at 155,000 tonnes lead, 30,000 tonnes zinc and 232 tonnes silver (Meloux, 1978).

CONCLUSIONS

John Hunt must have been a remarkable person. He was the main protagonist of the Sark and Herm mining ventures in the Channel Islands, and was probably largely responsible for the 'Channel Islands Mining Boom' of the 1830s and 1840s.

However, in the end the only serious venture on Sark, ended dismally with (as far as is known) expenditure of £32,400 and income of only £2,370 (Laffoley, 1985). To persuade some of the Sark Mining Company shareholders to invest further in the Pont-Péan mine in 1851, must therefore have been no mean achievement. Maybe the prospective directors were impressed by Hunt's activities between 1842 and 1851. Maybe they were impressed by the French shareholders' philosophy of maximising returns and minimising investment. Or maybe they were basically rich enough to partake in this type of activity without any problems. For instance, it is possible that Thomas Dobrée Uttermarch was a member of the Dobrée family of Nantes, the ship owning family. (A. Brulé, written communication). Whatever the answer may be, as far as can be ascertained, the former shareholders of the Sark Mining Company must have been well pleased with their investment in Pont-Péan compared with the Sark fiasco. No direct figures are available, but the performance of the mine suggests that the venture must have made money.

The significance of the British contribution to Pont Péan must not be underestimated. It would appear that it marked the start of a history of British investment in French silver mines. For example, it was with British capital (Taylor Co.) that la Société des mines et fonderies de Pontgibaud (where Hunt's brother-in-law, Lukis, was a director) was formed in 1855.

ACKNOWLEDGMENTS

The author is very grateful to Mme Anne Brulé for drawing his attention to the connection between mining on Sark and at Pont-Péan, and for making a copy of her book available to him. Dr. Arthur Mourant commented on an earlier draft of the manuscript.

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