

Tamar

Journal of the Friends of the Tamar Valley
Number 37 – 2015



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EDITORIAL

‘*Tamar*’ No. 37 opens with an interesting and meticulously researched article by Helen Wilson on the career of the Calstock-born mine engineer and manager, Ernest Terrell. He played an important role in the late stages of mining in the Tamar Valley and elsewhere in the region, notably as assistant manager at Gunnislake Clitters Mine in the early 20th century during its final development phase.

Gary Hicks extends the maritime history of the Tamar Valley with his article on the schooner *Elizabeth Drew* and its links with the Sims and Willcocks families of Gunnislake and Calstock.

Once again, we benefit from the industrial archaeological research undertaken in the Tamar Valley by Colin Buck and the Cornwall Archaeological Unit. In this volume, Colin focuses on key sites in the Danescombe Valley as well as lime kilns nearby at Cotehele.

Tamar No.37 includes several short items. Jane Kiely records the launch of a new gig at Cotehele, plus the disruptive landslip at Lower Kelly, Calstock in May 2014. There is also a brief glimpse of two very different ‘Tamars’, a report from the AONB, and a book review.

The volume is completed by Helen Wilson’s reports of the Friends’ talks and walks during 2014. Helen again supplies a thorough record of the very diverse events organised by the Friends. Of course, thanks are due to the Programme Secretary, the speakers and walks leaders who provided them.

This 2015 edition has again appeared very late in the year, despite promises of earlier delivery - apologies! But contributions to bring forward Volume 38 for 2016 would be much appreciated, be they detailed research articles or shorter items with relevance to the Tamar Valley. Please get in touch via the email address below if you have something to offer.

Ernest Terrell: A Tamar Valley Mine Engineer

Helen Wilson

There is a saying in Cornwall that a mine is a hole anywhere in the world with a Cornishman at the bottom of it. This refers to the diaspora that occurred in the C18th and C19th when the opportunity arose for skilled miners to find work abroad, spurred on by the later decline of the copper and tin mining industries in Cornwall. One did not have to travel as far as the USA, South Africa or Brazil, however, to find a Cornishman in a foreign hole. Many skilled miners migrated to Dartmoor tin mines. Indeed, it is unlikely that the tin industry on Dartmoor could have met with any success without the knowledge and experience brought by Cornish miners.

The route by which many miners made the journey, sometimes over several generations, from deepest Cornwall to Dartmoor was via the Tamar Valley. The boom and bust nature of the mining industry meant that when a mine began to become profitable men were encouraged to migrate eastwards from other parts of Cornwall and often to cross the border into Devon. The men most in demand were the ones capable of organising the engineering necessary to open up the mines and maintain output, as efficiently and cheaply as possible. This knowledge was gained most often by experience and later by training at the Camborne School of Mines, founded in 1888 and inspired by John Taylor, the great engineer who was responsible, among many other achievements, for the Tavistock Canal.

One engineer with roots in Cornwall whose family migrated to the Tamar Valley was Ernest Terrell. He first came to my attention when I read an article in the Dartmoor Tinworking Research Group newsletter on Stormsdown Mine, near Ilsington, north of Ashburton. In January

1907 Ernest Terrell became mine manager at Stormsdown, having previously worked at Gunnislake Clitters as assistant mine manager. He was charged with installing new machinery and bringing the mine into production. The choice of plant at Stormsdown had been influenced by the successful modern plant that had been in operation at Gunnislake Clitters a few years earlier. The plant installed at Stormsdown was even more sophisticated and efficient.

Here was a man at the cutting-edge of mining technology at that time and I wondered how he had got to where he was in 1907. I thought his name was probably Cornish and that at some point I would find his Cornish lineage. What I discovered was that Ernest Terrell did indeed come from several generations of Cornish miners and that although he worked most of his life in Devon, his affinity with his home county never waned. This research was full of interesting discoveries but the real surprise for me was that the place he made his home for the last couple of decades of his life was in Lockyer Road, Plymouth, just down the way from where I live. Here he died at the relatively young age of 44, leaving behind a modest fortune, a widow and three children.

Ernest Terrell was born in Calstock parish in 1879, the eldest son of Stephen Terrell and Emma (née Nicholls). In the 1881 census the family was living at Wheal Arthur House, near Albaston, and Stephen was a 'Captain Tin Dresser'. This fits well with known production at Wheal Arthur, which was mainly a copper mine, but between 1870 and 1885 was also worked for tin. The couple had two more sons, Fred Lancelot (1884) and Stephen Llewellyn (1885), before Emma died in 1888. Captain Stephen Terrell soon married Mary Elizabeth (née Jane) from St Mellion and they went on to have another son, William Henry, in 1891. By this time Stephen was a tin mine agent living with his family at 23 Calstock Road, Gunnislake, and the three older boys attended school. By 1901, however, when the family was living at King Street, Gunnislake, it seems that Stephen's fortunes had waned

somewhat, as he was no longer an agent but merely a tin dresser. The family income was supplemented by the two middle boys, by then working as tin miners, while Ernest was making his own way in the world. The last we see of Stephen and Mary Elizabeth Terrell is in 1911, when they appear in the census at Newbridge Hill, Gunnislake. Although Stephen is an out-of-work tin dresser they appear to be living quite comfortably in a six-roomed house, with all the children settled elsewhere.

Stephen, like his four sons and his first wife, was a native of Calstock parish but his father, another Stephen, was born in about 1823 in Redruth. It was he, with his wife Emily Louisa Ann (née Bray from Bodmin) and their two eldest children, who made the journey from mid Cornwall to the Tamar Valley, where at least six more children were born in Calstock parish. Stephen senior is first recorded there in Middle Dimson working as a copper miner in 1851 but by 1861, living with his family at Masons Row, he had become an engine driver, a more responsible and better paid position. Again, though, middle age brought less good fortune, and Stephen was described in 1871 as an 'inveled'. Stephen and Emily, with eight children ranging in age from 3 to 24, lived at 2 Sims Cottages, Gunnislake. Luckily for the family's finances, one son was an engine driver and two daughters were also employed at the copper mines.

Ernest Terrell, growing up in Gunnislake with mining all around him, was inevitably drawn to this sphere of employment. He went to school in Gunnislake but it was not until the census of 1901 that it becomes clear that his education surpassed that of his father and grandfather. In that year he was living with his new wife Mabel Annie (née Gregory) in Chapel Street, Gunnislake, and described himself as a 'Lecturer in Mining Science, Assayer and Mine Surveyor'. His higher education had been at Camborne School of Mines, and the lecturing probably took place there as well. Fred Lancelot Terrell, his younger brother, was also

a student there, according to a newspaper report on his marriage to a Camborne woman. There is also a strong possibility that the third brother, Stephen Llewellyn Terrell, was also educated at Camborne, since he was described as 'Mining Engineer, Assayer and Mineral Dresser' in the 1911 census and is mentioned in mining literature in relation to various reports.

We know that before 1907 Terrell was working at Gunnislake Clitters as assistant mine manager. The operation at that time was the reworking of dumps, mainly for tin and wolfram (tungsten), by Clitters United Mines. The successful production of these two minerals from dumps was made possible through the introduction of electromagnetic separators. In this process, the raw ore, after calcination, was fed beneath electromagnets to attract the wolframite, which is weakly magnetic. At Clitters a large and complex plant was built by the German company Luhrig Coal and Ore Dressing Appliances Ltd over a series of stepped levels on a steeply sloping hillside, arranged to enable the continuous movement of ore by gravity (Fig.1, p.8). The material was delivered by narrow-gauge railway at the top of the mill and the finished tin and wolfram concentrates were bagged at the bottom. Some of the remains of the buildings that housed this machinery are clearly visible today (Fig.2, p.9), near the incline plane that now provides access to the steep hillside for walkers (Fig.3, p.10) The plant was considered the most up to date in the world at the time and proved highly successful, treating nearly 450 tons of wolframite between 1902 and 1909.

Terrell then went on to Stormsdown Mine in 1907 to oversee the installation there of modern machinery. The magnetic separator purchased was described as 'a Wetherill type machine by the Humboldt Co., similar to the Clitters machine, but iron frame instead of wood' and costing over £800. While he was employed at Stormsdown he made his home at Ashbourne, Ashburton, where his son Kenneth

Lancelot Gregory Terrell was born in November 1909. He also became part of the local community, being a star member of the Ilsington Wanderers Cricket Club. In July 1909 production at Stormsdown was stopped and most of the workforce were laid off. From then until 1913, Terrell appears to have continued his employment there as chief agent. This may have been initially as part of a holding operation while attempts were made to sell the mine, although in July 1913, after the death of the owner, the mill was re-activated to process outstanding stockpiles of ore, but operations finally ceased in 1914.

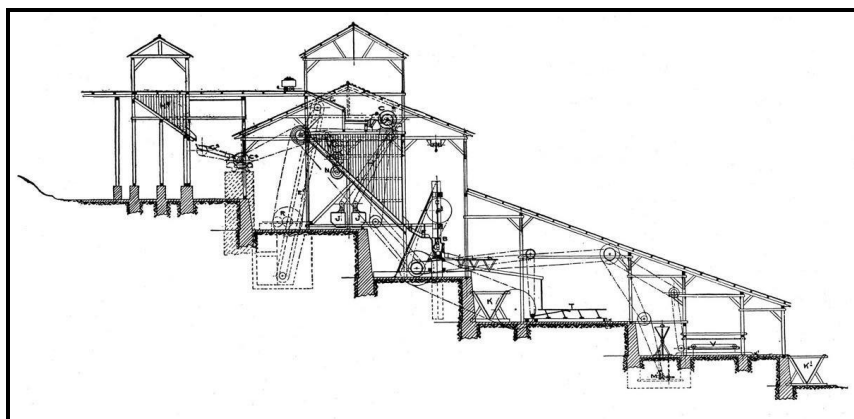


Fig. 1 *Section of the Clitters Tin Concentration Mill.*
From Mining Journal, Dec. 7th 1901.

By 1910 Terrell was also listed as chief agent at Wheal Friendship, near Mary Tavy, employed by Wheal Jewell Syndicate Ltd. Wheal Friendship was later worked with Wheal Jewell by Wheal Jewell and Mary Tavy Mines Ltd, and Terrell referred to himself as mine manager for that company as late as 1921. Wheal Friendship had been the most important copper mine on Dartmoor but by the time Terrell arrived tin, arsenic and tungsten were the main minerals produced. The significance of Wheal Jewell in its early days was due in no small part to the skill of the engineer John Taylor, who among his many interests

was the establishment of a mining school, later realised in the Camborne School of Mines. Terrell thus owed Taylor a debt twice over.



Fig 2. *Remains of the mill at Gunnislake Clitters.*

In the census of 1911 Terrell was living with his young family at Bryn Tavy, Mary Tavy, and he described himself as a mining engineer and mines manager. In the entry for Wheal Jewell in Dines, it refers to a report by S. Terrell and states that “... a proposal to drive a tunnel from the valley near Hill Bridge towards No. 3 shaft was put forward by Terrell, but not carried out”. This has to be the brother Stephen Llewellyn Terrell, who was also living in Mary Tavy in 1911 and was probably employed by the same company as a mine engineer. It is certainly Stephen Llewellyn referred to by Dines in relation to Huckworthy Bridge Mine, where it is stated that “...the outcrop of a manganese-bearing lode on the same line of strike has been recorded (R. W. Toll, and S. L. Terrell)”.



Fig.3 Former incline at Gunnislake Clitters Mine

A report by Ernest Terrell produced in 1914 relates that in the later period of mining at Wheal Jewell (1912-18) power was provided by a two-stage air compressor sited at Wheal Betsy, worked by two Pelton wheels. “Compressed air at 90 p.s.i. was piped to the mine, over a mile away, through a 6” cast iron main... where it was used to work pumping, winding and rock drilling machinery... (and) worked well”. Terrell was undoubtedly responsible for introducing this method of powering machinery at Wheal Jewell. In January 1914 he delivered a paper entitled ‘Compressed Air, Its Transmission and Delivery’ to the Cornish Institute of Mining, Mechanical and Metallurgical Engineers at Camborne School of Mines, which was later published in the Institute’s

Transactions. Despite living and working in Devon, Ernest Terrell was not only a member of the Cornish Institute (founded in 1913) but also served on its Council.

In 1915 Terrell published a paper in *Mining Magazine* on ‘Tin and Tungsten in the West of England’ and in 1917 was appointed to the Cornish Tin and Tungsten Research Committee. Meanwhile, for the duration of WWI, he served as West of England mining representative in the Ministry of Munitions and produced reports recommending that the reserves of wolfram ore at Hemerdon be exploited for Government contracts. He then became managing director of British Tungsten Mines Ltd that ran Hemerdon until closure in 1919, purchasing the magnetic separator that he had previously installed at Stormsdown.

It is difficult to be sure when Ernest Terrell moved to Plymouth, although it was probably after the Great War, and it is quite remarkable that he did so, considering he was still working at Mary Tavy. He lived in one of the respectable suburbs of the town and became a pillar of Plymouth society, a leading light in the Rotarian Club and a team captain of Plymouth Cricket Club.

In September 1921 Terrell organised a tour by the Rotarian Club of the Hemerdon wolfram mine, where he had calculated that reserves were sufficient to produce 400 tons of wolfram ore a day for 70 years. Government demand for wolfram ceased in 1919 because of supplies under contract from China and the mine was closed. This visit with the Rotarian Club was reported in the *Western Morning News* under the headline “Slump in Wolfram. Inexhaustible Mine in Devon. Why Hemerdon Works are Closed”. Terrell was, however, optimistic and predicted that one day valuable business would be done at Hemerdon. In his opinion the use of tungsten was only in its infancy and there were far greater uses for it than merely aiding steel production. Today his words seem almost prophetic as the mine at Hemerdon is being redeveloped.

Terrell was a prolific letter writer to the *Western Morning News* and held forth on subjects such as the introduction of a new drying method to the china clay industry, for which he was partly responsible, and defending the Tavy mines from accusations of fish kills. He wrote two long letters in 1921 on the need for labour and capital to work together to overcome the economic depression that was affecting the mining industry, the nub of which was that workers needed to accept lower wages. One wonders, though, if he would have advocated such a drastic course of action to his own father and grandfather. Another debate in which Terrell participated several times was on the relative evils of drinking and smoking.

Ernest Terrell reached his 44th birthday on Wednesday 20th June 1923. He had recovered after a week's illness from pneumonia, but then collapsed and died on the Saturday after his birthday. He had suffered from asthma for over seventeen years, which had prevented him serving in the Great War. He left £9,657 8s 3d, which he bequeathed to his wife and children, worth about £350,000 today.

What I find remarkable about this story is that Ernest's father Stephen Terrell, who, at his peak, had been a mine agent, managed to send two, probably three, sons to college to learn the science of mining and to better themselves. With this education behind him, Ernest achieved a great deal and became a well-known and respected mining engineer and manager. The springboard for his education had been his father's and grandfather's employment in the mining industry of the Tamar Valley, based on the experience and skill of Cornish forebears. Ernest's funeral, held at St Gabriel's Church, Peverell, Plymouth, was attended by the Mayor and many of Terrell's associates and friends from Mary Tavy, Ashburton and Plymouth. He is buried at Efford Cemetery, Plymouth.

Sources

Censuses, BMDs, directories and probate records were accessed at www.ancestry.co.uk and www.thegenealogist.co.uk. Numerous local newspaper reports were found at www.britishnewspaperarchive.co.uk. Some of the information on Terrell's association with Hemerdon Mine was located at www.dmrs.org.uk and on Gunnislake Clitters at www.tvia.org.uk.

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The Schooner *Elizabeth Drew* and the Sims and Willcocks families of Gunnislake and Calstock

Gary Hicks (www.plymouthmerchantships.info)

The Royal Cornwall Gazette of Saturday, 29 July 1871 reported the launch of a well-modelled schooner on the evening of Wednesday 26th from the shipbuilding yard of Captain John Stribley, at Padstow: “she was christened the *Elizabeth Drew*, and owned by Messrs Sims and Co., Calstock.” Sims and Co. were in fact William, Charles, Henry and Frederick Sims who described themselves on her Register as “Merchants of Plymouth” although the declaration of ownership they completed on 24 July (among the ship’s papers Plymouth & West Devon Record Office, Ref: 2381/33) showed that they were all born at Calstock. The *Elizabeth Drew* must have been substantially complete and ready for sea when launched, for they registered her at Plymouth on 3 August; each holding sixteen sixty-fourths. Some shares were sold among her four owners until the death of Frederick Sims, when his shares passed to Elizabeth Drew Sims answering the question – who



From a photograph in
the author's collection

was Elizabeth Drew. Further shares passed to Elizabeth, so that on her death, on 2 April 1884 she held 48 sixth-fourths in her name-sake.

Whether the figurehead in this photograph of the *Elizabeth Drew* is simply a fine example of the sculptor's art, or is actually a portrait of the lady in question, is probably something we will never know. Her register describes the figurehead only as "Woman Bust", but does seem to show that the schooner carried it throughout her life, for her description was never altered to show its removal.

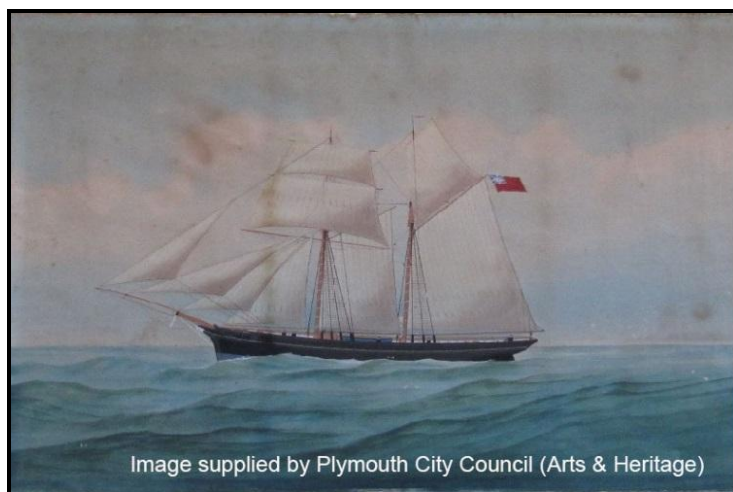
My transcripts of the Plymouth Merchant Shipping Registers show that the Sims family owned nine trading vessels registered at Plymouth, the smallest the schooner *Volunteer* of 76.70 tons and the largest the barque *Emma Sims* of 417.41 tons. The *Elizabeth Drew*, of 99.51 tons, was their third acquisition. Although my primary interest is in the vessels, it is almost impossible not to be drawn into some research into significant owners. This revealed that John Sims, born at Redruth in 1795, had moved to Gunnislake and married Elizabeth Drew Spettigue in 1834; the first owners of the *Elizabeth Drew* were four of their seven sons and they also had two daughters. Living at Oakenhayes, John is described in the 1841 Census as a mine agent and later, when living at Slimeford, as a manganese merchant, his sons are similarly described from time to time in various documents and this appears to have been the family business. Plymouth & West Devon Record Office (Refs 1506/4, 5 and 6) contain correspondence between John Sims of Slimeford Manganese Works, Calstock and solicitors acting for landowners, regarding applications for licences to search for manganese on their clients land. The sad and mysterious circumstances surrounding the death of Henry Sims, found drowned off Plymouth Pier, are known from an inquest into his death (P&WDRO Ref: 1650/365).

A little more than a year after the death of Elizabeth, the first shares in the *Elizabeth Drew* to be sold out of the family were sold to Thomas Shugg Grenfell of Calstock, merchant, who became the ship's

managing owner on 13 July 1885. The Sims family gradually sold their shares, but the last block of 15 sixty-fourths were only sold on 17th February 1914, following the death of Charles John Sims.

Grenfell did not long retain his interest, selling two blocks of 8/64ths to John Willcocks Master Mariner of Calstock and John Willcocks junior of Calstock Master Mariner.

In 2012, I was asked by the Curator (City & Maritime Heritage), Plymouth City Museum & Art Gallery whether, from my research in the Plymouth Merchant Shipping Registers, I could confirm that a watercolour (below) in the Museum & Gallery's collection, awaiting conservation and investigation of provenance and history, was of the Plymouth registered schooner *Elizabeth Drew* (the name of the vessel is just legible, on her bow, in the original, but cannot be seen in the image of the watercolour above).



The portrait is unsigned, but bears the initials "EW". I should perhaps be said that a ship's portrait is not simply a painting of a ship, but is an attempt to portray the vessel in accurate technical detail for a very

discerning and critical client, such as the master or one of the owners. Almost inevitably the vessel is depicted, beam on, as here, and while there is nothing in this painting to denote ‘place’, many were painted by artists in Mediterranean ports, with appropriate backgrounds; the Grand Canal at Venice, with the Doge’s Palace behind, or the Bay of Naples with an erupting Vesuvius in the distance. Many portraits have titles, for example “Schooner Sea Nymph, George Wright Commander leaving the Port of Venice 1850”. Given that title, it was possible to trace the voyage and to say that the painting was completed when the *Sea Nymph* was in Venice from 23rd May to 10th June 1850. There is no such title here, unfortunately.

From April 1854 every British registered vessel was given an Official Number, which appeared on all paperwork relating to the ship and was also cut deeply into her main beam, the number was unique to the vessel. Useless to an artist, the number is, however, very occasionally used in a description or added to the reverse of a painting. The next official introduction was, however of use and indeed delight, to artists, for it introduced splashes of bright colours to ship portraits.



Following consideration by a Board of Trade committee, established in 1855, a commercial code of signal flags, used to transmit simple messages and to identify individual vessels, was introduced in 1857. The code was alphabetic but used only the consonants, less the letters x, y and z, since the permutations available from those letters were ample for the ships then existing and the committee considered (choosing their words carefully) that if they were not omitted: “every objectionable word composed of four letters or less, not only in our own but in foreign languages, would appear in the code in the course of the permutations of letters of the alphabet”. Since the Plymouth-registered

schooner *Elizabeth Drew* was built in 1871, she was immediately allocated the identifying four letter code R.C.N.V. Translated into flags, her signal letters would have been as shown on the left. The annual Mercantile Navy Lists post 1856 list British Registered Merchant Ships in both name and Official Number order, giving their signal letters, but the artist who painted the portrait of the *Elizabeth Drew* did not include this unique identifier.

Lloyd's Register of 1872 shows only a single vessel named Elizabeth Drew and she is the Plymouth schooner of that name. This was useful in identifying the vessel in the watercolour, but not conclusive evidence, and there was at least one other *Elizabeth Drew*, built 11 years later and owned at Plymouth at the same time, although this vessel was a smack (almost certainly a river barge).

The face of the painting therefore contained no incontrovertible proof that the subject was the Plymouth schooner. However, the reverse of the painting was addressed in pencil "*Mr. Cap E. Willcocks Calstock P/S Empress North Corner*" and an Edmund Willcocks, Master Mariner of Calstock purchased shares in the schooner *Elizabeth Drew* in two blocks in July 1909 and April 1914. A paddle steamer, named the *Empress*, the only vessel of that name registered at Plymouth, and almost certainly the vessel named in the pencil annotation on the reverse of the painting, is shown in Venning's Directory of East Cornwall for 1887, in regular employment as the Market Boat from Calstock to Devonport, where North Corner was often the terminus. Registered at Plymouth on 26 February 1880 the life of the *Empress* overlapped the Willcocks ownership of shares in the *Elizabeth Drew* for the register of the *Empress* was closed on 27 August 1931 "Vessel converted into a houseboat". Initially, there seemed to be a possibility that Edmund Willcocks was the master of the *Empress*, but this now seems unlikely.

Research at the date of the Museum's enquiry revealed a second portrait of the *Elizabeth Drew* - an oil on board painting, 51 x 81.5 cm, depicting a very similar beam view by C. Southey, held in the collection of the National Maritime Museum (Ref: BHC4154), which can be viewed on-line at www.bbc.co.uk/arts/yourpaintings/paintings/the-topsail-schooner-elizabeth-drew-175653. The National Maritime Museum does not have any information relating to the artist associated with the catalogue entry for BHC4154; even his full name is not known.

My reply to the Plymouth Museum enquiry was that the watercolour was almost certainly of the Plymouth- registered schooner *Elizabeth Drew*, but that further research would be undertaken to try to establish whether there was a family connection between Edmund Willcocks; John Willcocks (senior) and his wife Mary Priscilla; and John Willcocks (junior) and his wife Jessie who had begun acquiring a controlling interest in the *Elizabeth Drew* from January 1887. This connection has, however, proved stubbornly difficult to unravel, but it seems that John senior is Edmund's father and Mary (or Matilda) Priscilla his second wife and that John junior is Edmund's eldest brother.

Despite this overall lack of progress, the research did reveal that an Edmund Willcocks married Mary Jane Southey at Plymouth in 1891. Born in 1868, Mary Jane Southey appears in the 1881 Census living at Fore Street Calstock with her father Richard (a quay labourer), mother Mary Jane, and her brothers Harry, Richard and Charles (aged 6). On the night of 5 April 1891 the Census shows "Charley", in the family home, Church Street, Calstock, employed as a general labourer. The marriage certificate of Edmund and Mary Jane, although it shows Mary Jane living in Plymouth, gives her age in agreement with the 1881 Census, her father's name as Richard and his employment as a "coal porter", consistent with the 1881 census. but most importantly gives the Groom's profession as "merchant seaman", his father as John

Willcocks, mariner and the Groom's address as "Schooner Elizabeth Drew Plymouth".

The marriage certificate therefore shows that Edmund Willcocks had a personal connection to Calstock and to the *Elizabeth Drew* and the inter-connection of the Willcocks and Southey names suggests the interesting possibility that C. Southey of the National Maritime Museum oil painting was Charles Southey, the brother-in-law of Captain E[dmund] Willcocks, the addressee of the watercolour reproduced above. An enquiry was made of the National Maritime Museum in an attempt to ascertain whether there was any marking on the painting or information in its acquisition history, which might help to substantiate this possibility, unfortunately, the acquisition history of the painting shows only that it was acquired by Dr. Basil Greenhill, director of the Museum, in March 1983 from the Parker Gallery.

Two sources were then used to establish the extent of Edmund Willcocks' connection to the *Elizabeth Drew*, a crew list provided the key to this, showing Edmund Willcocks, born Looe 1868 (home address Tamar Terrace, Calstock) as the Master of the *Elizabeth Drew* between January and December 1913. This enabled Edmund to be identified with certainty in the 1891 Census in which he was at Llanelli on board the *Elizabeth Drew*, single and at the early age of 22, her master. In the 1901 Census he was at home at Lower Kelly, Calstock with Mary, Edmund R. born 1894, Philip J. born 1895, Freda M. and Charles H. The 1911 Census found him at Runcorn, the master of the *Elizabeth Drew*, with James Goard, of Calstock mate, and Philip John Willcocks, aged 16, cook, the youngest of his crew of four.

Edmund Willcocks served in the Merchant Service during WWI, probably continuing as master of the *Elizabeth Drew*, but on the 1 May 1918 Edmund and John Willcocks (senior) who had, between them owned the whole 64 shares in her since 1914, sold the *Elizabeth Drew* to the Hook Shipping

Company of Hook Colliery Haverfordwest, ending her 47 year connection to Calstock and her 27-plus connection to Edmund. The company fitted her with an auxiliary paraffin engine and at the end of the post-war boom in shipping, sold her in 1923 to Charlotte Eliza James of Saul in the County of Gloucester. Under magnification the name 'Elizabeth Drew – Plymouth' can just be seen on her rail, in the adjacent photograph, from the author's collection. The location of the photograph is not known, but from the garb of the two seated figures it may perhaps date to the 1920s. Her square topsails were removed

about 1923, which may help to date the photograph.



She was again sold on 4 June 1931 to Robert William Anstey of Cardiff, Master Mariner. While in the ownership of Robert Anstey she was the subject of a third portrait, being depicted in a pen and ink drawing by Philip J. Oke, dated 19 January 1932; the drawing forms part of the collection of the National Maritime

Museum, Greenwich (object ID PA173371) but, unfortunately, is neither on display nor available online.

Her final owner was Robert Ogilby Carver of East Hill House, Ottery St. Mary, Devon, Gentleman, who purchased her on 22 November 1932 and her Plymouth register was closed on 23 August 1933 "Ship totally

lost on 19 July 1933”. Notice of her demise appeared in the Times of 20 July 1933 - “SCHOONER SUNK IN CHANNEL – COLLISION IN FOG. When fog was particularly thick yesterday off Folkestone the *Elizabeth Drew* motor auxiliary schooner, owned by Mr. R. O. Carver, of Hove, sank in collision with the German steamer *Mimi Horn*, bound from Hamburg to the West Indies with 15 passengers and 5,000 tons of cargo. The crew of four, including the skipper, Thomas Rooney, of Rush, Co. Dublin, saved themselves by jumping into their boat as their craft sank. They were picked up by the German steamer and landed at Folkestone. The *Elizabeth Drew* had a cargo of 150 tons of coal and was from Blyth to Padstow.”

The same edition of the Times under the headline “Casualty Reports from Lloyds” reported the following wireless message: “Elizabeth Drew – North Foreland Wireless Station, July 19 – Following from German motor vessel *Mimi Horn* at 11.25 a.m. G.M.T. – Schooner *Elizabeth Drew* sunk this morning 10 a.m. in lat 51.0.30 N long 1.11.45 E., dangerous to navigation. Crew saved, will be landed at Folkestone.”

Edmund Willcocks died at Calstock on 11 January 1943 and is buried at the Parish Church.

In conclusion I might say that the *Elizabeth Drew* has rather drawn me into her web. I would be most grateful for any assistance which might help me add to the above and in particular I would like to hear from anyone who can tell me more about the Sims or Willcocks families, either of the portraits, or more concerning the *Empress*, or her masters.

The Danescombe Valley: an Industrial Archaeological Study

Colin Buck

This article draws on a report produced by Cornwall Archaeological Unit for Cornwall County Council (Buck, 2003), arising from an archaeological assessment of a project area that included parts of the Danescombe Valley, the lower half of the nearby incline railway, and three lime kilns. This area contains the remnants of two 19th century mines (Cotehele Consols and Danescombe Valley Mine) with associated shafts, adits, leats and reservoirs. Other significant buildings include an 18th century paper mill, a 19th century sawmill and lime kiln complexes.

The archaeological assessment combined a desktop assessment of the historical background of the area and detailed field surveys. The sources consulted included historical documents, maps, plans and other published material held by the Cornwall County Records Office and Cornwall's Local Studies Library, as well as published histories and local research. The maps used included the 1843 Tithe Apportionment Survey and the 1st and 2nd edition 1:2500 Ordnance Survey map.

The archaeological assessment resulted in recommendations for shaft treatment, consolidation of buildings, landscaping, footpath restoration and wall rebuilding, vegetation management, safer public access and interpretation. The project was formulated with the co-operation of the local Calstock community groups and landowners. However, this article does not detail the management recommendations in the source report, but rather focuses on the historical background and key industrial archaeological features it identifies.

Location, setting and site overview

The main site considered is the Danescombe Valley, including the paper mill and the lower half of the incline railway and lime kiln on its eastern boundary. The study area also includes lime kilns on Cotehele

Quay and on the edge of Bohetherick Wood (outside the Danescombe Valley itself).

At the southern end of the Danescombe Valley project area are the remains of a water turbine powered sawmill. North-east of this site, in the centre of the valley, are the remnants of two 19th century mines (Calstock Consols and Danescombe Mine) on either side of the stream. Both the surviving mine buildings have been converted for residential use. Mineral lodes run at right angles to the north-west to south-east line of the valley.

Approximately 65m further up the valley is the site of Cotehele Consols Mine, with an engine and boiler house, copper crusher house, large buddles, chimney and flues.

Adits were driven along the bottom and sides of the valley. The lower examples were used mainly for drainage, and the intermediate levels for access and ore extraction. . There are leats running along the southern side of the valley, some of which are still operational. With the exception of adit shafts and the well preserved remnants of a reservoir pond (used for the boiler houses and latterly the sawmill), there are few other archaeological features on the southern side of the valley.

The northern side of the valley demonstrates a completely different kind of land use. Documentary references from the late 18th century attest to market gardening of fruits and flowers, an activity which lasted up to the 1950s. The valley side is characterised by tracks, retaining walls, low hedges, platforms and small ponds. Wild daffodils, strawberries and remnants of orchards are still visible in the spring, as are the remains of the corrugated sheet-clad buildings erected as packing sheds.

The National Trust owns the majority of the land within the project area (14.4 ha out of 15.0 ha). A broad range of works have been tackled in

the recent past by the National Trust and the Landmark Trust, who converted Cotehele Consols engine house for residential use and consolidated the nearby crusher and boiler house.

Geology, Mineral Lodes and Shafts

According to Dines (1956: 644): “*The chief lodes are markedly uniform in an east-west strike, with the notable exception of those of Cotehele Consols and Calstock Consols which approach north-east. All the lodes have yielded principally sulphide ores, (and fluorspar)...with a little tin. Insignificant amounts of lead have been obtained from Danescombe Mine and Okel Tor Mine*”.

The copper and arsenopyrite lodes in the valley are oriented between east to west and south-west to north-east. There are five main lodes, two of which have been the centre of operations for the mine complexes at the bottom of the valley, with shafts, adits and stopes visible along the lodes where they intersect the sides of the valley. These mines were relatively shallow, the main shafts bottoming at only 60 fathoms, with drives both east and west along the lodes.

There are five mapped shafts in the study area:

- Hughes Shaft (SX 4234 6929) is vertical to the 10 fathom level, and follows the underlie of the lode to the 45 fathom.
- Engine Shaft (SX 4230 6928) is vertical to the bottom of the mine (60 fathoms), passing through the lode at the 10 fathom level.
- Whim (Tree) Shaft (SX 4215 6950)
- Old Engine (Air) Shaft (SX 4225 6951)
- Shaft (SX 4229 6950)

Historical background

In 1337, Edward III created the Duchy of Cornwall for his son, utilising seventeen Cornish manors that had been obtained by Richard Earl of

Cornwall in the mid-13th century. Calstock was one of these manors. One of the prime reasons, however, for this more formalised royal ownership of prime sites in Cornwall lay in the associated mineral rights that accompanied the land as well as the right to receive a tax (1/40) on all tin that was exported from the county. Danescombe, lying in the western side of Calstock parish, was no exception to the rule. Brooke (1986) has recorded a reference to Calstock mines in 1302-4, possibly an early outcrop working or perhaps demonstrating evidence for streamworking or lode-back works at the base and sides of the valley.

The history of the valley up to the 19th century is a little sketchy, although Calstock thrived as a village, ferry and toll site with boat/barge building etc. It was not until the mining boom of the 18th and 19th centuries that the village developed, responding to the needs of the mining and agricultural communities that had expanded at this time. Lime kilns, boatyards, coal merchants, carpenters shops and smithies were built, changing the face of the valley to give it its present day appearance and character.

Key industrial archaeological sites

Note: only a selection of the sites featured in the archaeological assessment are featured here. For full details consult Buck (2003).

Danescombe paper mill (SX4177 6980) Fig.1

This building, owned by the National Trust, was built in the mid 18th century. Harris (1972) stated that six paper mills working paper making were working on the fringes of Dartmoor from the 1750s. These water-powered mills used rags and hemp, which was probably imported through Plymouth and carried up the Tamar. The earliest documentary mention of the Danescombe site is in 1788 (Todd and Laws 1972) when the mill was insured for £600. The mill was advertised for sale in 1811 when it was described as carrying on the brown paper business and having '*one large vat and all the fixed machinery constructed on*

the best principles'. Booker (1972, 38) states that it was making coarse brown paper, paste and millboard. In 1825 the mill was owned by Peter Hill '*...a manufacturer of coarse brown papers at Calstock*'. A local market for brown paper seems to have been assured by the need for packing, wrapping and boxing locally-produced horticultural produce with millboard. The National Trust Archaeological Survey (1987, 31) states: '*In 1851 the mill was working with one vat and a beating engine, and continued in production until 1857*'. The mill stopped working in 1857 when it was supplanted by a larger mill at Hatches Green, further up the Tamar.

The paper mill lies on the west side of the Danescombe stream, set into the side of the valley. It was powered by a water wheel (probably overshot) mounted on its northwest wall. The water was supplied by a leat from a header pond sited approximately 44m upstream. The ground plan of the mill consists of a main rectangular section 17.4m long and 6.9m wide, with two additional (single storey) bays on the south west side. Near the front of the building (between the stream and its front face), a further two additional single storey buildings are sited, sharing a continuous north east wall.

Internally, the extension wall retains a smooth plaster finish and the floor each side of the wall was heavily cemented and the walls coated as if to form tanks for liquid. Given the coarse nature of the product from the mill (brown paper used for flower/fruit packing), it is likely that wood pulp (as opposed to rag cloth for finer paper) was used as a raw material. This section of the building may have contained the large vat with swinging arms powered by the water wheel that mixed the wood pulp with water, prior to the mixture being pressed, dyed, formed and dried (at the top of the building) to make coarse brown paper.



Fig. 1 Danescombe Paper Mill, from Buck (2003).

Danescombe Sawmill (SX4247 6907)

Danescombe sawmill was built and owned by Stephen Grills of Fursden, St. Dominick, and opened in April 1878. The Western Daily Mercury for 6th April 1878 reported the opening ceremony and described the machinery therein: *'The mill is 90 feet long by 40 broad; the roof is constructed wholly of iron, which gives it a very light appearance. The machinery is driven by an American turbine of 13.25" wheel, having a fall of 43 ft, and consists of racks, saw benches, band saw, and saw sharpening machine. Timber is also drawn up on a tramway by the same power from the riverside to the mills. 2000ft of timber can be completed by the mills in one hour. They were considered by all present to be the most complete waterpower mills in the west of England'*. The site is shown as disused by 1905 (OS 1:2500 map), presumably a direct result of the closure of the nearby mines, and thus the loss of the market for cut timber. Prior to its eventual closure, local

tradition holds that the building was being used as an explosives store for the mines.

The purpose-built, water turbine-powered building (Fig.2, p.30) provided timber primarily for the Cotehele estate and the mines, presumably from the estate's woodlands. The building was stripped of its iron-girdered and corrugated steel roof structure once the mines were no longer using it as an explosives store at the turn of the century.

A University of Leicester survey of the site (1994) describes the building thus: *'The mill is a rectangular building 28.3m long by 10.9m wide. Its side walls are 3.7m high with the south – east wall rising to 5.4m above ground level. The building is constructed of local killas with yellow brick quoins to the windows and doors. It was a single storey building divided into two thirds and one third by a partition wall which has a large central opening with a built-in fireplace and chimney breast'.*

A survey commissioned by the National Trust (1996) noted that *'...the building has been built a little way into the side of the valley; its walls are extant to roof plate level. The head of water and leat supply comes into the building on its south side (via a small tunnel) and then under the floor to a water wheel (that powered the turbine to generate electricity)'.*

The sawmill was fed by a leat, shown on the OS 1884 map as originating north of Cotehele. The leat enters the wood west of the sawmill and runs down the centre of a shallow tributary valley. At a point approximately 80m from the intersection of the track running along the bottom of the Danescombe Valley, a second leat feed was taken off the sawmill leat to go to a 40 ft water wheel that was in use by the 1840's.



Fig. 2 Former sawmill in Danescombe Valley, November 2015 (Photo Clive Charlton)

Danescombe Valley Mines

The history of mining in the Danescombe Valley from the early years of the 19th century is convoluted and complex, like that of other nearby mines. The various developments are outlined chronologically below. The principal sources are Morgan (1972), Hamilton Jenkin (1961) and Brooke (1986).

1821-8 Wheal Calstock - 92 tons of copper realised (value of £500). The mine was centered on the buildings now known as Danescombe and Engine Cottage.

1835 Danescombe Valley Mine had a steam engine erected by William West. However, one year later the mine's effects were auctioned, and were purchased by the Danescombe Mining Company (Brooke 1986).

1837-1842 Danescombe Mining Co. owned by 1842 a 30" pumping engine, an 18" steam whim, horsewhim, 40ft water wheel, and crusher with stamps with '*a right of using a Quay at Kelley Rock*'. The

pumping engine was sold to South Hooe Lead Mine in Sept 1843, and the whim engine to Marke Valley. There was also '*a large and convenient Account House, Smith and Carpenter's Shop, and other convenient buildings on the mine*'.

1845 Wheal Calstock Mine was restarted on the western boundary of Danescombe Mine, served by the same deep adit which had been driven north beneath the valley, an eastern branch extending into Danescombe and a western one into Wheal Calstock,

1848 A shallow adit was driven through Pawley's Shaft on Wheal Calstock for a total length of 200 fathoms. At deep adit level a wooden pump of 5 inch bore was found

1849 The Danescombe sett was acquired by Calstock Consols Mining Co., the joint adit was cleared and two water wheels erected of 40ft and 50 ft diameter, with a new leat, and a grinder.

1850 Calstock Consols Mining Company now comprised four setts and extended for nearly two miles, the principal workings centered on the elevated ground to the east of the Danescombe valley.

1864 Calstock Consols had reached a depth of 62 fathoms below adit and 32 people were employed. The mine had a 40" pumping and 25" winding engine, with a 40ft water wheel (Collins 1912, 433). The mine produced 3707 tons of copper ore from 1856 to 1864.

1868 Operations ceased (work below adit had stopped in the previous year), but machinery remained on site until 1872 (Spargo, 1865).

1872 The 40" pumping engine, 25" rotary engine, boiler, pitwork, Smith's house, shaft gig, and water wheel were placed for sale (Brooke, 1996).

1880 Reworking of Danescombe Valley Mine with Calstock Consols. Output recorded of 6 tons of 8.25% copper ore (worth £21.90) and 323 tons of mispickel (arsenical pyrites), worth £239.30 (Burt et al, 1987). A new engine house and crusher building were built for the Cotehele Consols copper and arsenic mine.

1884-5 Cotehele Consols taken over by Okel Tor Mine (dissolved 1883), and renamed the Calstock and Danescombe Consolidated Company. Copper pyrites was taken by barge for arsenic extraction. Both Calstock and Danescombe Mines from 1884 to 1885 produced 390 tons of 4.25% copper ore and 3141 tons of pyrites (partly arsenical).

1885 Cotehele Consols was up for sale for £500.

1887-1895 Under the names of Calstock and Danescombe Consols and Danescombe Valley Mine, over 11,104 tons of arsenical pyrites were returned (Dines, 1956), and 917 tons of copper ore to a value of £1108 (Burt 1987). During this period, an average of 20 men worked underground and 13 people at surface, per year. From c1890, the combined mines within the valley produced such vast amounts of mispickel that Danescombe became the main producer for a decade. The ore was roughly crushed on site, and then carried in horse-drawn carts to the Coombe Arsenic Works at Harrowbarrow for refining.

1896-1904 Coombe and Danescombe Arsenic Co. acquired three setts with a combined length of approximately one mile from east to west and half a mile from north to south, to continue refining the arsenic ore at the 20 acre Coombe Arsenic works site (Brooke 1996).

1904 The company closed down, in its final year producing £1421 of refined arsenic, and having copper ore sales of £27 (Brooke 1996). The years 1898 to 1902 saw 4462 tons of arsenic treated, producing 659 tons of refined product.

1909 After a few years of inactivity, attempts were made to revive arsenic production. Under the ownership of Consolidated Tamar Mines Ltd, small scale work was producing arsenic and copper in 1912, but seems to have petered out by 1914 (Brooke 1996).

Cotehele Consols Mine (SX 4229 6937)

The tall copper crusher engine house is an imposing structure on the floor of the valley and its conversion to domestic occupation by the Landmark Trust has ensured its continued preservation. The boiler house and copper crusher were also consolidated some years ago. A pair of stone-edged buddles, approximately 4.0m apart, are sited approximately 11m south of the copper crusher.

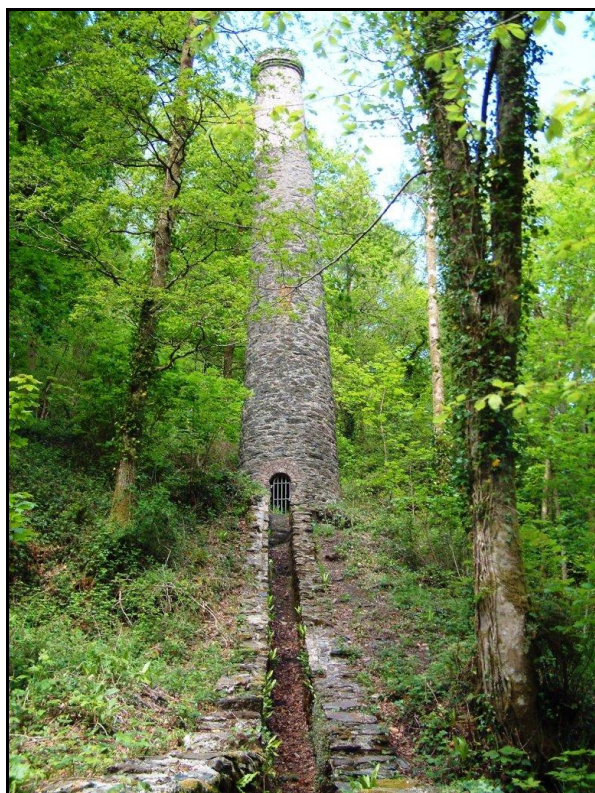


Fig. 3 Cotehele Consols Mine, Danescombe Valley: chimney and flue

There is an open adit adjacent to the south west corner of the engine house crank pit and loadings. The mouth is grilled (with a hinged gate)

and is approximately 0.9m wide and 1.7m high. Water drains out of the adit and partly enters a small ceramic drain that takes it to the river. The boiler house flue runs from a distance of about 25m from its twin feed (from two boilers) upslope to the chimney (Fig.3). The roof of the flue has long been robbed, leaving its side walls (0.45m thick and 0.5m high) enclosing a flue 0.54m wide. At a point approximately half way up its length, this flue was joined by another flue running parallel but west of the engine house. It is assumed this flue was associated with the steam whim, sited west of the engine house.

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The engine house chimney is in a relatively good state of repair and measures approximately 13m in height, although has a slight lean to the east. The opening is brick arched and has brick sides, although some of these are cracked and some missing.

Engine Cottage (SX 4220 6929) Fig.4, p.35

This building is shown on the 1838 Mining Grant plan (held by Calstock Archive). The cottage was originally constructed as an engine house. It is likely to have been built in the mid-1830s and to have been not only the first steam engine erected on the mine, but also within this part of the Tamar Valley. A 30" pumping engine was sited in the building from 1835 to 1843, which was sold to South Hooe Mine. The engine was probably made at Harvey's Foundry, Hayle. A larger 40"

pumping engine was documented as being used on the mine from the 1850's until it was advertised for sale in 1872.



Fig.4 Engine House and chimney, Danescombe Valley

The Incline Railway

The history of the incline railway is also closely related to the production of lime. The Tamar Coal Manure & General Mercantile Co. Ltd issued 1200 shares on 1st January 1859 to raise £6000 for the construction of an incline plane to transport lime and coal from the western quays to the 'Butts' (a height of 350ft, a line length of 35 chains and a gradient of one in six). *'Traffic was worked on the counterbalance system using the weight of descending vehicles to assist a small engine in the raising of wagons up the slope'*. On September 3rd, a prospectus

was issued by the company to ... *'carry on the business of Lime burners and Manure and General Merchants at Kelly. The Inclined plane is nearly completed from the quays at Kelly to the Butts, being a short distance from Albaston whereby the hill will be avoided. It is proposed to erect at the Butts; limekilns, storehouses, yards, corn crushing and other machines'* (Calstock Archive - Incline Railway).

The Cornish Times on November 19th 1860 reported: *'The incline plane was opened on Tuesday last, by drawing the first coals to the top of the hill....On Thursday morning the foundation stone of new limekilns at the top of the hill was laid'* (the Albaston lime kiln was started on March 13th 1860). By September 10th 1864 the Cornish Times carried a statement: *'Vivian & Sons respectfully inform their friends and the public that they have succeeded to the business of the Tamar Coal Manure & General Mercantile Co. at the Kelly Quays, Calstock'*. However, at a meeting held at Commercial Wharf, Kelly on Wednesday 28th December 1864, the Tamar Coal and Manure Company passed a special resolution to be wound up voluntarily (Cornish Times January 14th 1865). After some delay, the incline system was taken over by the East Cornwall Minerals Railway as part of its narrow gauge line to Kelly Bray, which opened throughout in May 1872 (Booker, 1972). The depot at The Butts was used as a maintenance depot for the single engine that worked the line (Barton 1964).

Lime Kilns

It is quite likely that the lime kilns on and near Cotehele Quay pre-date the mine buildings in the valley. In an unpublished MSS on lime kilns in Cornwall, Atherton (1996: 29-30) stated: *'In respect of the whole county, the Tamar Valley, probably holds the longest record for dealing in lime, it is certainly recorded as being the valley's oldest industry, with barges bringing sea sand and river-estuary mud for liming the land long before mining became important. Similarly, winning, burning*

and transporting the limestone continued to be a major industry after many of the local mines had long since gone out of production (Halton Quay still burnt lime in 1916). This long tradition is now reflected in the extensive remains that litter the whole valley. Most of the kilns remaining were built between 1770 and 1830. They would once have been an impressive site, working at almost every quay and landing place along the Tamar'.

Lime kilns were built in the 18th century to provide agricultural lime to reduce the acidity of land. Lime was in substantial demand over the following century and appears to have resulted in two main build phases: the grain crisis following the Napoleonic Wars resulted in an estimated two million acres of land being brought into cultivation between 1790 and 1810, agricultural lime being necessary to treat the soil. Secondly, the in-rush of workers from the c1840's to the 1870's created massive demand for living accommodation, and therefore lime-based building products (lime mortar and lime-wash).

From evidence provided by the lime kilns on and near Cotehele Quay, it appears the early agricultural kilns operated as *continuous*, *running* or *draw* kilns. These kilns were operated either continually or in tandem, being charged with alternate layers of five parts limestone and one part coal. The later mid-19th century kiln needed a higher quality of lime, with no ash/coal inclusions. These were often *flare* or *intermittent* kilns, sometimes smaller and narrower than their predecessor. Lumps of limestone would have been built into a dome shape forming a cavity for the fire using slow burning hardwood. The resulting lime, unloaded from the top was of a high quality and when slaked produced the basis for fine lime mortar and washes (Atherton 1996).

Cotehele Lime Kilns SX 4233 6805

Although Cotehele Quay is probably contemporary with the earliest phases of Cotehele House in the medieval period, its two sets of lime kilns are of much later date, both dating from the late 18th century. Only

the southern set of kilns (with three wells), are considered in this article. The earliest reference to kilns at Cotehele is in a sale notice of 1793 listing ‘dwelling house, granary, cellars, limekiln etc’ in the tenancy of Martin Rickard (National Trust Cotehele Estate booklet 1994). Booker (1967) describes it as being extant in 1819. It is shown on the 1843 Tithe map, but depicts only the two northern wells, the third to the south being added at a later date (prior to 1884). Isham (2000: 46) comments that the date of the last burning of lime took place in 1901. The building is Listed Grade II.



Fig. 5 *Lime kilns, Cotehele Quay*

The building measures 21.3m in length across its front face. The two half-arched openings which provided access to the fire grate openings of the three wells are an unusual design in this locality (with the exception of one of the arches in the Bohetherick kiln). The building is located approximately 50m from the main quay. It is constructed of slate masonry. Access to the top of the kilns for loading the layers of culm and limestone was from the main road that runs around the kiln's north side and then parallel to its front.

The northern half-arched entrance leads to a high-arched roof to provide access to the northern well stoke hole. The central well is also accessed via this entrance (on its southern side). The southern half entrance has external dimensions similar to those of the northern one. The foundation of this part of the building is on bedrock.

The middle well opening is about 3.5m diameter, and is approximately 2.0m in diameter at its base.

Bohetherick Wood lime kilns SX 4230 6789 Fig.6

This lime kiln has similarities to the kilns at Cotehele Quay which, from documentary evidence, date from at least as early as 1793. A map of the study area by Gardener in 1784 does not appear to show the lime kilns (although the map's shading for the wood may obscure the details). Interestingly, a road or track is shown leading to the lime kiln site (or the quay area upon which the kiln was later built), which may be evidence of its existence prior to 1784. Certainly by this date, as described in the historical section above, there was increasing effort to expand areas under cultivation, creating a market for agricultural lime (to neutralise acidic soils).

A water colour in the Royal Institution of Cornwall, dating to 1817, shows the kilns in operation in what was probably their final form. They were apparently named 'Dung Quay' at that date. This is probably a reference to 'Dock dung' from Devonport, which was delivered at the adjacent quay for distribution (with the lime) to nearby fields, as a nitrogen/phosphate fertiliser.



Fig. 6 Bohetherick Wood lime kilns

On the 1841 St. Dominick Tithe Apportionment map, the site (No. 530) is titled 'House and Waste', but by 1862 all of the Cotehele lime kilns were let together. By 1884 (OS 1884 1:2500 map), the Bohetherick kilns were disused. The building is Listed Grade II and has been scheduled as an historic monument.

In plan, the lime kilns have three wells, comprising a central larger kiln with two smaller kilns on each side. The western kiln is smaller than the other two, and appears to have been a later addition. As with many kilns, it was built into the bank of the Tamar for top loading, and sited to leave an open space for the unloading of coal/culm and limestone, and collection of the finished product.

At the front of the central kiln a central pilaster rises to a slate string course that extends to the eastern well front wall. The flanking wings of the side wells are set back from the central well, both with a half-arch entrance leading to the stoke-holes. The central kiln has two opposing

stoke holes, while the side wells have only one (both accessed via the same entrance used by the central well). The central kiln west stoke hole (granite edged) has a half arch leading to it with a small vent hole above, and the west kiln stoke hole has the same dimensions and construction. Interestingly, the west kiln has a blind pointed-arched window, its floor sited above ground level. This may be a later design modification to provide access to the mid-central section of the kiln for drawing out lime or perhaps 'riddling' the mix during the burning process. There is a similar modification to the east kiln front elevation, but a granite sill and lintel have been used, which from the ground appear to be of medieval origin. This observation also applies to the east kiln stoke hole access, which has a curved granite lintel, of possible medieval origin.

Incline lime kiln (SX 4280 6889)

This lime kiln is not shown on Calstock's 1834 Tithe Map, but appears on the 1884 OS map. Limestone was barged from Plymouth by the Tamar Coal Manure & General Mercantile Co. Ltd and was offloaded onto the quay in front of the lime kiln, then loaded into trucks to go up the incline to feed lime kilns at The Butts at the top of the incline. This kiln, at the bottom of the incline, also appears to have been loaded from the trucks, and the resulting lime taken by rail from its high draw arch. Presumably, the kiln was owned by the same lime company and was built in the 1859/1860 period.

The kiln has two open wells and a central draw arch. A storage area, presumably for the storage of lime blocks and small amounts of coal was built on the (upper) western side of the kiln, with a larger storage area at ground level for coal/culm or for slaked lime.

The western front face of the kiln is 6.0m high and the western corner junction of the kiln with this wall 8.0m high. The eastern equivalent corner of the kiln is 14.0m high, and adjoins a tall retaining wall built

between the lime kiln and 'skew bridge'. This wall retained the incline railway and the bridge transferred the line from the quay area to the incline.

The front wall of the kiln is 28.7m long and the kiln itself is 10.7m high. The arch opening floor is 1.65m above road level, 3.04m wide and approximately 3.3m high. Both of the stoke openings are accessible from this single draw arch. Apart from the size of the building it is also distinguished by the four large iron structural tie-braces - iron bars going through the building to its covered north wall from the central bolts.

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The launch of the gig ‘Teylu’

Jane Kiely

On a rather damp cold March Sunday in 2015 many people gathered on Cotehele Quay for the blessing and launching of the latest gig for Cotehele Gig Club. *Teylu* was shining beautifully in the drizzle (or should I say ‘Cornish sun’!?) in her cream and green livery, to match the members in their green tops. She was the latest in the Cotehele Gig Club's stable of gigs and commissioned as a result of a grant and fund raising. The gentleman who built her was looking on very proudly! The retired rector of Calstock, Andrew Wilson, was on hand to provide the blessing, as he has done so many times for all the boats launched during his time in Calstock. The Rubber Band provided suitable watery music, while everyone cheered as *Teylu* took to the water and the crew enjoyed their new gig. Those left on shore retired to the ‘Edgcumbe’ for a welcome cup of coffee and warm up.



*Launch of Cotehele Gig Club's new gig, Teylu, March 2015
(photo: Jane Kiely)*

The Calstock Landslip

Jane Kiely

Christmas Day 2013 was a date to remember in Calstock. Part of Lower Kelly, the lane that runs alongside the river Tamar, and then becomes a footpath into Danescombe and its woods and thence on to Cotehele, cracked and slipped down the steep bank, leaving only a strip of tarmac and the very narrow pavement. The lane was immediately closed, accessible only by foot or bike. For those people living in Lower Kelly their cars were either in the village or trapped! There was a constant procession of interested people between Calstock and Cotehele, all enjoying a car-free walk.



15 January 2014 proved to be a other memorable day, when the Royal Marines brought several landing craft up the Tamar to rescue the cars. It was a slow process, one car per trip, checked each end for scratches, 37 cars which took two days when the tide was right! Everyone was reunited with their cars! There was then the slow process of rebuilding the lane,

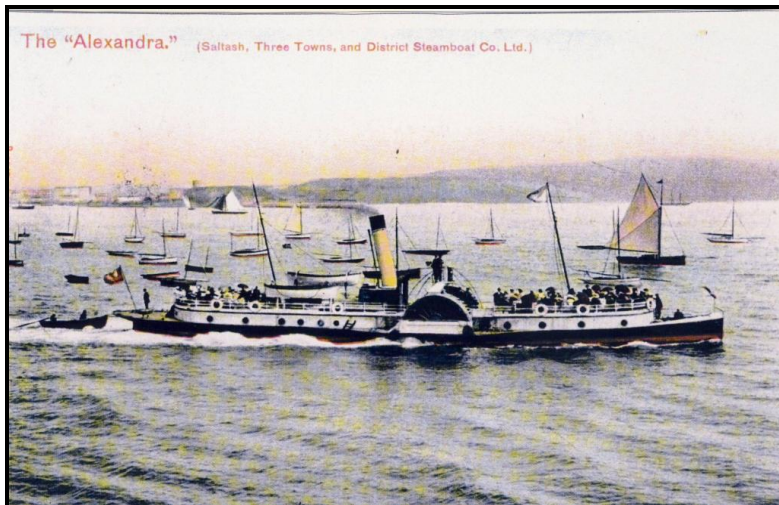


The Marines to the rescue! Stranded cars are retrieved from Lower Kelly, January 15, 2014

May 2014 - the last weekend before Lower Kelly was opened again, and Calstockians made the most of the weather, good food and good company by having a street party (p.47)! This was the last time we were able to use the road without traffic and before life returned to normal after five months. It had been an interesting experience with everyone walking and cycling, people meeting up and chatting whilst pulling their suitcases along to catch the train, or get to their cars in the car park, or using a wheelbarrow to transport their shopping or even tools and materials to continue work. Normal life was resumed!



May 2014 – street party on the repaired Lower Kelly, Calstock



100 years earlier, the paddle steamer Alexandria would have been a familiar sight from Lower Kelly. She stayed in service until 1927.

Global Tamars? Our river's name in two very different settings

Clive Charlton

Although commercial shipping on the estuary above Saltash ceased nearly 100 years ago, the name 'Tamar' still ploughs the seas. Devon-based Exe Shipping operates a fleet of cargo ships in the European 'short sea' trades, in conjunction with Dutch partners. Their ships carry the names of Devon rivers – with a Latin twist. Among them is *Fluvius Tamar*. Like the rest of the fleet, she is registered at Delfzijl in the Netherlands. She is a relatively modern ship, and perhaps reflecting a general eastward drift of shipbuilding, she was launched in 2010 from



the Chowgule shipyard in Goa, India. The ship is much larger than the small 'classic' Dutch coasters that were so common in West Country ports 50 years ago. Whereas those were typically 500 gross tons (a measure of capacity rather than weight), *Fluvius Tamar* is nearly 3,000 tons. And she is certainly far larger than the coasting vessels that came up the Tamar to Calstock and Morwellham in the 19th century.

Sadly, *Fluvius Tamar* rarely visits the West Country. But her work takes her to a wide range of places in Europe and beyond. Among her ports of call in 2015 were Reykjavik, Antwerp, Casablanca, Marin (Galicia, Spain) and Brake (Germany).

Our second ‘global Tamar’ connection lies far beyond European seas. Keen geographers will know that there is a Tamar River running down to the north coast of Tasmania, Australia. But besides flowing north rather than south, that Tamar is different from ours in other ways. ‘Down under’, Launceston is located right on the Tamar (and describes itself as a ‘boutique riverside city’). On the other hand, their ‘Devonport’ is *not* on the river, but is along the coast to the west (but it does have an airport!). Local wildlife includes Tasmanian Devils and duck-billed platypus. But both Tamars have ‘world-class’ mountain bike trails, and both valleys are developing local food initiatives (as per p.51). In Launceston, Tasmania, they promise “mobile eating experiences” via “vibrant food vans offering everything from a sumptuous black angus beef burger to nourishing vegan quinoa tabbouleh”.

Intriguingly, there is a Tasmanian ‘Friends of the Tamar Valley’, although with rather different core concerns. The Tasmanian group (<http://ftv.org.au/>)



has been part of an ongoing local campaign seeking to resist the construction of a large pulp mill on the banks of their river. This mill would produce pulp for export, using large quantities of wood from eucalyptus plantations.

Although the company that initially sought the development has gone bankrupt, the pulp mill proposal is still fiercely contested. While supporters stress economic and employment benefits, many local people are deeply concerned about serious environmental threats, including pollution and odours. They also challenge the economic viability of the mill. In 2015, the development was in abeyance, but it still appears to be a very divisive issue.

Celebrating 20 ‘Outstanding’ years in the Tamar Valley

Charlotte Dancer

Around 300 visitors joined the celebrations on Sunday 30th August, 2015, in the grounds of the Tamar Valley Centre, as the Tamar Valley marked 20 years since it was designated as an Area of Outstanding Natural Beauty. It was also the culmination of the AONB’s five-day Tamar Trail Festival where a further 300 people took part in a variety of activities and events on offer.

Visitors enjoyed a fun-filled family day with a mini ‘BioBlitz’ led by local naturalist John Walters, moths trapped from the night before, animal encounters and craft activities including paper vases, willow bird feeders and edible bugs. The crowds were entertained by local musicians The Rubber Band, and refreshments were provided by the local WI and the Travelling Diner.



*Tamar Valley AONB’s celebration day at the Drakewalls Centre,
Sunday 30 August 2015*

The event was launched with a locally produced breakfast for people

who had supported the work to conserve and enhance the landscape of the Tamar Valley over the past 20 years. Bread was provided by the Little Bakehouse, Downgate, and jams and honey supplied through Tamar Grow Local. A commemorative plate painted by Sarah Lee, Paint a Pot was unveiled during short speeches by Cllr Neil Burden (Chair, Tamar Valley AONB) and Phillip Hygate (Chair, National Association for AONBs).

Corinna Woodall, Manager of the Tamar Valley AONB, said “we were delighted to see so many familiar faces and new supporters on our day of celebration. It was a real community event, which would not have been possible without the sheer hard work of our dedicated volunteers. We hope this gave a glimpse into the breadth of work carried out by the AONB and that despite potential funding cuts on the horizon that we will have the support from our Partners and the Valley communities to enable us to continue for the next 20 years!”



Local celebrities The Rubber Band play at the Tamar Valley AONB's celebration day at the Drakewalls Centre, Sunday 30 August 2015

Stalls and stands from local organisations, including the Tamar Valley Tourism Association, Westcountry Rivers Trust and Cornwall Wildlife Trust, and the Open Studios art exhibition, showcasing work from four talented ‘Drawn to the Valley’ artists, highlighted just some of the many attributes of our area.

The celebrations continued throughout the autumn with our ‘20 Places: 200 Years’ challenge, which featured a photographic competition using the ‘Rate my View’ app, to show how the landscape has changed over the past two centuries.

Linked to this, over 60 people took part in our Hidden Valley photographic competition, where the AONB team was on the hunt for participants’ secret parts of the Tamar Valley.

Did you know?

- AONBs are designated by Natural England, under the Countryside and Rights of Way Act (2000)
- These areas are designated to conserve and enhance natural beauty, whilst recognising the needs of the local community and economy.
- In England & Wales, there are 38 AONBs; the Tamar Valley is the youngest.
- On 30th August 1995, the Valley was designated an AONB because it is;
 - a rare valley and water landscape, based around an unspoilt estuary
 - a landscape of high visual quality
 - a unique wildlife resource
 - a remarkable heritage
 - a landscape of artistic and public appeal

Book Review

Devon Great Consols - A Mine of Mines, by R.J. Stewart

Publisher: The Trevithick Society, 435 pages, Paperback £24.99; limited edition hardback £42.99.

At long last, a comprehensive history of Consols; Rick Stewart has done the old mine proud.

A short introductory chapter covers earlier tin-working on the sett, for which there is documentary evidence in the Bedford papers and humps and bumps on the ground, before the opening of the copper and arsenic mine in 1844. The bulk of the book is concerned with Consols proper, beginning with the application for and granting of the lease and the discovery of the Main Lode. Subsequent chapters cover each decade down to the final closure and the scrapping in 1900-1905. The final chapter is an account of twentieth century re-working, the most recent closure being in 1985, the year of the tin crisis. Each chapter has notes enlarging the text and full references. Appendices cover management, workers, welfare and housing; geology and lodes; production figures 1845-1904; and, most important of all for those who like to go and have a look, a gazetteer indicating where surface remains are to be found, with grid references. A bibliography steers one towards further reading.

This is not a book for use in the field. Fortunately, I have a superficial ground knowledge of the sett so that, when reading the book, I was able to locate the feature being referred to. A series (it's a large sett) of self-guided walks a la Brown and Acton would be welcome, provided one is not discouraged from going off piste by the current management's mania for fences and no-entry signs. An alternative is to join one of Rick's walks, when his knowledge and enthusiasm will encourage you to do your own exploration.

The book is written by a mining historian, with underground experience. It is not an overview essay such as those by John Goodridge, Hamilton Jenkin and Frank Booker. In the absence of surviving DGC papers, Rick has relied mainly on reports of company meetings and from captains in the Mining Journal. He gives a very good account of the progress and decline of the mine as a mining concern, referring to features on the surface, but very much concentrating on sinking and driving underground.

The book is well illustrated. It is surprising how few photographs there are of DGC in the palmy days or later; there is a panoramic view from the west which has only recently been discovered and one hopes that the publication of the book will encourage a search for other images. There are nineteenth century sections of the mine and elevations and plans of some of the machinery, together with reproductions in colour of Symons and the Bedford Estate maps of 1867. Annotated versions of the 1883 OS cover the railways, DGC in relation to neighbouring mines and, most valuable, the use of water on the mine, one of the most interesting of the surface features on the sett.

This is a very readable account of the mine for which many of us will be indebted to Rick. A little light editing and proof-reading would not have gone amiss, but one soon adjusts to the punctuation and minor glitches. Don't let my editorial pedantry put you off.

Stephen Docksey

Devon Great Consols: *photographs by Anthony Lewis*



Arsenic refining site near Wheal Josiah

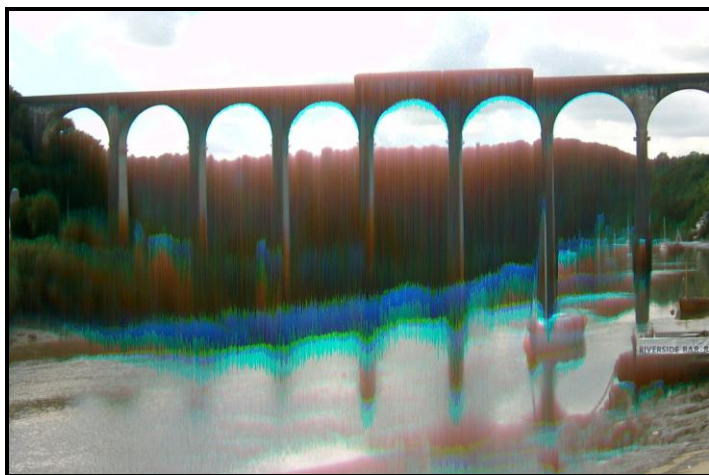


Tower of former flat rod system, Rubbytown Bottom

Calstock Viaduct: some editorial self-indulgence!



A familiar image perhaps, but full of interest, with the newly completed viaduct, wagon lift to take rail trucks down to the quays, and the East Cornwall Mineral Railway line still in situ on the river bank.



The output from an ailing camera, rather than Photoshop!

Meetings of Friends of the Tamar Valley - 2014

Helen Wilson

The first presentation in January 2014 was from our very own Clive Charlton, on the people with power on the Bere Peninsula, from the beginnings of settlement there through to the abolition of the ‘rotten borough’ it became. Clive identified two main (overlapping) groups of people in power – first, the landowners, the ‘Lords of the Manor’, and second, the MPs for the Borough of Bere Alston from 1584 to 1832, although the Church and the Crown also exerted power to varying degrees. The de Ferrers family were settled there by the 1180s and were responsible for the rebuilding and extension of St Andrew’s church. Power shifted somewhat from 1584, when the new Parliamentary Boroughs were set up, including Bere Alston, although local landowners still wielded control over who stood for election. This was certainly one of the ‘rotten boroughs’ against which reformers railed and in 1831 the franchise was extended and many Boroughs, including Bere Alston, lost their seats. The power of landowners and MPs declined and was, perhaps, replaced by the power of commerce, in particular the mining industry. Later, other industries emerged, such as horticulture and tourism. Today, community life on the peninsula appears to continue in much the same way as in the past, whoever is in power.

The February meeting brought a face familiar to many of our members. Rick Stewart has been mine manager at Morwellham Quay for many years. He produced a new talk for us in an area that has received little serious research: ‘The Birth of Copper Mining in the Tamar Valley’. The first record of copper mining in the Valley was in the 1580s, at the Marquis Lode, just up from Gunnislake Newbridge. In the late C17th a new attitude of free enterprise arrived and the whole system was liberalised and deregulated. In 1688 a method of smelting lead was applied to copper and the invention of the reverberatory copper smelter

opened the door for the British industry. Thomas and John Coster came from Bristol to Devon and Cornwall and revolutionised the copper mining industry here, through better machinery and techniques. They introduced the use of large overshot waterwheels underground, which proved more efficient than the previous ‘rag and chain’ system. In the 1720s, steam power became available and the Costers used it to its full advantage. The introduction of gunpowder greatly assisted extraction and was introduced to Devon and Cornwall in about 1689. The birth of copper mining in the Tamar Valley is poorly documented and it seems that Rick may have found himself a research project to occupy him for some time to come.

In March Ron Smith talked about the building of the Plymouth Sound Breakwater. In the days of sail, ships often had difficulty getting in and out of the Sound against wind and tide. In 1806 the foremost breakwater engineer of the time, James Rennie, with Joseph Whidbey, surveyed the Sound and came up with a proposal that was accepted in 1811 and commenced in 1812. The breakwater sits directly over the Shovel Shoal and extends out from it at each end. A limestone bluff at Oreston was purchased from the Duke of Bedford and quarried away completely over the next few decades. The blocks were typically 2 to 5 tons and the main structure consists of rough blocks, sorted by the action of the sea. The breakwater was finished with dressed limestone with some granite. The final cost, by the time it was completed in the early 1840s, was £1.5m. Today, the breakwater continues to provide a more safe passage for all kinds of ships and boats in and out of Plymouth Sound.

The ever popular Gerry Woodcock came to speak after the AGM in April on ‘The Sale of the Century: when Tavistock was put up for sale’. Tavistock, Gerry maintained, had only had three eras in its history: pre-1539, when Tavistock Abbey was the source of power and patronage, post-1539 when the First Earl of Bedford was granted lands by Henry

VIII and he and his descendents became the lords of the manor, and after 1911 when the land and the buildings were sold and became the property of multiple owners rather than one. This enormous change arose from the 1909 budget in which levels of income tax and death duties were raised. This so vexed the Eleventh Duke of Bedford that he decided to sell off parts of his huge estates, including the lands in Devon. Almost all of his town property and most of the surrounding estate land were sold at auction starting on 26th June 1911. The newly formed Tavistock Urban District Council negotiated to take over the town's water supply, the markets, slaughter house, town hall, wharf, meadows and swimming bath and tenants were encouraged to buy their properties. The auction went on for fourteen days and the amount raised by the Duke was £514,517. Local opinion was that the town had come out of it all quite well and the extent of the conversion from private to public hands was probably unique.

Jill Drysdale visited us in May with a talk about Mrs Folley, a missionary in Bath Street, Plymouth, from 1925 to 1952. Mrs Folley was born in Calstock into a Bible Christian family. Her father worked in the Drakewalls mine, but the family later moved to Plymouth. In 1925 when Mrs Folley started visiting households in Bath Lane, Plymouth, it was a very rough area but the community was always friendly towards her. Jill transcribed Mrs Folley's diaries with full daily details of her missionary work, seven days a week, and the awful cases she encountered. Poverty and sickness were rife, with little fresh air in the houses, and the Mission helped both the deprived and depraved. Bath Street Mission was very busy during the War, and particularly during the Plymouth Blitz in 1941. After the war, she continued her work by visiting people to see who was in need. Mrs Folley died in 1953 after 28 years of devoted service and is buried at Callington.

The summer events got off to a flying start with a superb afternoon tea on a beautiful summer's day on the terrace at Hotel Endsleigh,

overlooking the River Tamar. A good range of sandwiches and an excellent selection of cakes and scones were served with tea and coffee. Most members also availed themselves of the opportunity to walk around the grounds in the glorious sunshine, while swallows swooped around on the lawns. The creation of Endsleigh began in 1810 for the sixth Duke of Bedford as a summer residence and was a collaboration between the architect Sir Jeffry Wyattville and the landscape designer Humphry Repton. The estate contains 13 listed buildings and structures, of which seven are Grade I. The garden itself is listed Grade I as being of Special Historic Interest.

In July, lunch at the Tamar Belle was followed by a visit to the former Union Tin Smelting Works at Weir Quay. We were given a guided tour by resident and trustee Geoff Moss. Built in 1849, the smelting works processed tin ores from Tamar Valley mines, including Drakewalls and Gunnislake, with the ore and coal brought in at Weir Quay. Many of the original buildings survive, including the smelter (though without its two chimneys), assay office, count house and stores. After closure in the 1890s the works were used by the Mount Edgcumbe estate as a workshop. The smelting vats were later used for the manufacture of jam from local fruit. Geoff is making the complex a comfortable family home but is retaining many of the features that tell the story of this historic building.

In August we explored Saltash and environs, starting at Salt Mill. This is where, as the name suggests, there was once a tidal mill on a tributary of the Tamar. The entire area is now filled in, primarily with rubbish from Saltash, and more recently capped and turned into a recreation area. We continued to the China Fleet Club for coffee and then on to the bird hides overlooking Kingsmill Lake. Returning to Salt Mill, we drove to Saltash foreshore for lunch. After viewing the mural on the side of the Union Inn, we continued on a steep walk up to the new Celtic Cross at the gateway to Cornwall. We moved on to Elliott's

Store and Museum in Lower Fore Street for a trip down memory lane. It is now a time capsule of a typical grocery shop of the 50s and 60s, with all the different products of that era and the living rooms are preserved in their period decor. We went much further back in time on a visit to Mary Newman's Cottage in Culver Road. This Grade II listed cottage is the oldest intact building in Saltash, dating from around 1480, and is said to be the original home of the first wife of Sir Francis Drake. The excellent cream tea we were served before we looked around was very welcome and timely after our day-long walk around Saltash.

Our evening talks resumed with one from Pete Holt of the Shipwrecks and History in Plymouth Sound (SHiPS) Project, a non-profit corporation and public charity. Pete explained that the long maritime history of Plymouth means that there have been hundreds of accidents and disasters in and around the Sound. Despite the passage of time, there is still plenty of evidence of these events in the seabed and seashore. The SHiPS Project aims to document the maritime history of Plymouth by recording the remains of shipwrecks, aircraft and other objects found underwater or on the foreshore. The Project team also provide training in a number of aspects of maritime archaeology and history. SHiPS has produced a new Plymouth Wreck Book and a Chart of 'divable' wrecks for those intrepid enough to venture underwater.

The October talk, entitled 'Life in the Past Lane' by Rachel Hunt, House and Collections Manager at Cotehele, introduced us to several generations of the Edgcumbe family. Rachel began with the tale about the first of the family to achieve more than local fame. This was Richard, who inherited the house in about 1460, and in 1483 declared himself in league with the revolt against Richard III. When pursued by the agent of the King, he escaped by throwing his cap into the water, fooling them into thinking he had drowned. He slipped away to Brittany but upon his return, he built a chapel where the incident had occurred, which still stands. Richard's son Piers then married Joan

Durnford, who brought with her lands on both sides of the mouth of the Tamar. This further wealth enabled Piers to add the great hall, his finest achievement at Cotehele. His son Richard built the house at Mount Edgcumbe in 1547, which was favoured over Cotehele for several generations. This meant that little changed at Cotehele and by the time George Edgcumbe, 3rd Baron, succeeded, Cotehele was still a remarkably intact Tudor house. It was not until the 1860s that any Edgcumbe wished to live full-time at Cotehele. Caroline Augusta, widow of the 3rd Earl, instigated a major building programme to update and remodel the house to make it habitable. The last Edgcumbe to own Cotehele was Kenelm, the 6th Earl, who succeeded in 1944. He was determined to rebuild Mount Edgcumbe, which had been bombed in 1941, and offered Cotehele in lieu of death duties and so the house was handed over to the National Trust in 1947.

In November, at short notice, Bernard Mills stepped in to replace the advertised talk with his own inimitable discourse on the Working Railways of Dartmoor. Drawing on his huge collection of old photographs and his own experience of working on the railways, Bernard presented a journey along the lines, past and present, that penetrate the National Park. Bernard recounted a number of the tramways and railways that connected with the current mainline, such as the Red Lake Railway that ran to remote china clay deposits, where peat was also harvested and transported on the Zeal Tor Tramway to Shipley Bridge. The best known tramway on Dartmoor is probably the one for Hay Tor granite quarry, running down to Stover Canal. Branch lines ran from Buckfastleigh to Ashburton and from Newton Abbot to Moretonhampstead, with numerous small stations. Okehampton station closed in 1968, although the branch to Meldon Quarry continued. At Lydford, the Southern Railway (SR) line from Launceston and the Great Western Railway (GWR) line from Okehampton had adjacent but separate stations, although the two sets of points were housed in one signal box operated by the same man. Tavistock boasted two railway

stations, as SR and GWR decided to build separate facilities to serve their lines. The Yelverton to Princetown branch was closed in 1956 but we were shown fascinating photographs of a steam train winding its way through the snow around King Tor. Parts of several of the defunct lines around Dartmoor have been restored and Bernard encouraged us all to go out and experience a ride on them.

The last talk of the year was from Chris Groves, whose family have been nurserymen for six generations, so it is not surprising that he went into horticulture and is now Orchard Officer for the National Trust's estate at Cotehele. One particular genus of plants, *Viola*, has been held in great affection by his father and grandfather and so it was with great excitement that Chris learnt of his successful application for sponsorship on a trip to Patagonia – home of the 'Andean' or 'rosulate' Violas. These are very different to what most people think of as Violas. Chris set out to record this unusual group and presented us with his wonderful photographs. Patagonia is a sparsely populated region located at the southern end of South America, shared between Argentina and Chile, and encompasses mountains, deserts, steppes and grasslands. Chris travelled there with a group of botanists from Kew and other nurseries. He saw more Violas than he had ever hoped and learnt a great deal seeing them growing in their often spectacular environment. He hoped that we had caught some of the excitement he felt about these plants, which we did indeed.

The Friends are indebted to all those who have contributed to our programme. We try to present a wide range of talks, which we could not do without the help of those who provide these presentations.

The Friends of the Tamar Valley

Meetings are held usually on the first Friday of every month at 7.30 pm at the Tamar Valley A.O.N.B. Centre, Drakewalls, Gunnislake, Cornwall.

Visits and walks are arranged for the summer months. The full programme of meetings is published in the Friends' Newsletter.

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