



THE TREVITHICK SOCIETY

KOWETHAS TREVITHICK
NEWSLETTER 158 WINTER 2012



The Puffing Devil at Wheal Busy where it was being filmed by the BBC.

Reg. Charity
No. 246586

CHAIRMAN'S ADDRESS

This has been the time of year when we received those pages that begin. 'As another Christmas comes around we can look back ...' and we have an account from a family we barely know of their holidays, school successes, deaths of unknown aunts and births to mysterious couples we've never met. You may think that an organisation that is devoted to the study of the past maybe adept at this form of social circular but I'm pleased to say that I have received none from our membership.

Maybe that is because we are looking forward. In the New Year we will undertake the digitisation of our considerable stock of artefacts, papers, pictures, slides and films. Our accumulated stock has come from all manner of sources as mines and manufacturing industries have closed. We are grateful to our curator, Pete Joseph and his predecessor, the late Clive Carter for their assiduous work in this field and for the caring public at large who have contributed all manner of precious family items as they sought their safe keeping in order that they can be enjoyed by generations to come.

The Society has commenced an examination with Heritage Lottery Funding of our collection and is making plans for its records to be brought up to a standard where they can be accessed on line for research and educational purposes.

We are also looking forward to a closer association with our membership. With this newsletter is a questionnaire that we hope you will complete. We are aware that there are some rich pickings of experience and interests in the membership and we anticipate developing links that can be mutually beneficial in the future.

With best wishes for 2013, a very interesting year if we work together.

Philip M Hosken

EDITORIAL

2013 is shaping up to be a pivotal year for the Trevithick Society with considerable curatorial activity promised to help bring the Society's possessions up to museum standards, and so open the door of future funding streams. Add to that the possibility of acquiring suitable premises to properly store the immense amount of the stock that is not on permanent display, and I, for one, cannot help feeling optimistic about the future. There will be much to do and probably even more to discuss at Council meetings!

Colin French



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Established 1935

LETTERS TO THE EDITOR

Dear editor,

It is not often that I'm driven to put digit to button, but, this year, instead of my usual trip to Caradon I went to Redruth, giving Acton & Brown an airing in the heart of Cornish mining, so, long story short & all that, has anybody seen William's Shaft lately? What a mess! Having spent time saving the building, erecting a useful plaque & so on, it has all been left to nature to keep tidy?

Bad enough to find shaft mouths full of rubbish, a local trait, no doubt, but someone has really put themselves out up at Williams. A few hardy volunteers & a skip donated maybe. I would, but, from Spain, it is a bit of a bus ride.

Paul Franklin

Paul Franklin [franklinp91@yahoo.com]

Ed. The William's Shaft site has been deteriorating for a number of years through benign neglect (as is the area around New Sump Shaft at Dolcoath). I regularly used to take groups of Cubs Scouts to William's Shaft so they could stand on top of what was once the deepest hole in the world and learn about their mining heritage which fills the panorama from that viewpoint. Tragically, such visits are no longer possible due to the state of the site.

A number of years ago the Trevithick Society Council, spearheaded by Clive Carter, organised a team of volunteers to clear away the gorse, etc. at New Sump Shaft and were in discussion with Kerrier District Council about undertaking the work. Sadly, Kerrier put so many bureaucratic obstacles in the way that the project became untenable. Now that William's Shaft is owned by Cornwall Council and World Heritage Status has been endowed on the area perhaps there is now greater scope for the appropriate action to be taken.

Q and A

We recently received an enquiry from David, a member from Truro who now lives in Surrey. He wondered how our 19th Century friends measured the depth of the shafts. While there's an answer to these questions, a certain amount of Cornish confusion seems to beset the final measurement. Tony Brooks at King Edward Mine said,

'Measuring a shaft would be an accurate steel tape job – most Cornish shafts are not vertical. In a modern shaft one would use a quality steel wire that would be calibrated for its weight and temperature so that the stretch could be calculated for any point in the shaft.

As to mine datum this seems to be variable. Most mines used adit level as zero and measured down from there. This is OK in general terms but is not accurate if one allows for the fact that an adit is not level. Most Cornish mines would then report the level as so many fathoms below adit. So the 340 level would be 340 fms below adit. But not always as some measured from surface. This is further confused where some mines have measured the depth down dip of the inclined shaft so the 340 fm level would then be something less than 340 from adit or surface depending on where they decided to measure from.'

One can't continue to use Cornish coordinates so Tony went on to say,

'In a modern mine, from a surveying point of view, the usual practice is to set an arbitrary level of, say, plus 10,000 metres at one fixed point on surface. All levels would be measured below that and thus would remain a positive number. Just makes life easier and reduces mistakes. The habit of giving a level a name approximating to the distance below surface still remains but is not used for measurement.

Similarly the mine grid reference would start from an imaginary point SW of the mine – thus all coordinates would then remain positive.’

We couldn’t let Tony go so I asked something that, as a former brick manufacturer, has puzzled me for some time. While I knew the Victorian bricklayers accomplished excellent work in culverts, drains and other underground workings, how did they lay the bricks downwards in a vertical shaft over 1,000 feet deep like that at Roskear? Was this the ultimate use of stiction? Tony explained,

‘Brick lined shafts would have been bricked a short section at a time usually by anchoring a curb ring at a measured position below the last lift of brick and then building back up. Cement or rubbish concrete would be filled in behind and with rough walls the brick lining would just stay there. A modern shaft is done in a similar way except that one pours concrete behind circular steel shuttering. To move the shuttering a small wedge piece is removed and the shuttering then springs away from the wall to be lowered down for the next lift of concrete.’

We’ve just asked him how the miners of old found their way underground from one shaft or rising main to another to connect up adits and create such masterpieces as the Great Adit. Watch this space for his answer. Any more questions?

P.M.H.

CAMBORNE CHRISTMAS MARKET AND ‘THAT HOLMAN BOOK’

On a couple of days the Trevithick Society joined in the merriment with its tent at Camborne Christmas Market. We had a new book on sale that particularly suited the Christmas market trade. Time and

again people would come up to us and ask for ‘that Holman book’. Then they would regale us with tales of gran’fer’s lifetime at Holmans before buying a copy as his Christmas present.

Occasionally gran’fer would turn up himself. A card shop in Trelowarren Street was also doing brisk business with the book.

Although we didn’t have a stem of holly or a sprig of mistletoe we sold a couple of boxes of ‘the Holman book’ and it was all very entertaining. On the first afternoon we accommodated Camborne Town Band in the tent but it poured with rain on the second evening so there was no sign of the Holman Climax Choir or the Salvation Army.

P.M.H.

FORTHCOMING BOOK

A conveniently sized book that explains why Richard Trevithick is not better known for his achievements will be published just prior to Trevithick Day this year. Based on the work embodied in *The Oblivion of Trevithick* plans are being made to incorporate *Genius - Richard Trevithick’s steam engine* with other educational books distributed to Cornish schools.

P.M.H.

TRUTH WILL OUT

While many supporters of James Watt still treat the idea that Trevithick invented the steam engine as heresy, Trevithick’s claim is now being accepted as fact. This Society recently played host to a professor from Chapman University in California who was writing a book entitled *Train: a biography* for Penguin. He was visiting Cornwall to discover the roots of steam propulsion.

P.M.H.

PLANS MADE FOR FRANCE

From the 19th to the 21st July 2013 the Comité Denis Papin will celebrate the life of Denis Papin close to his birthplace at Chitenay in the Loir et Cher Department of France.

Denis Papin is revered in France for having invented the steam engine. Simply put 'denis papin chitenay' into Google to find details of his work on the Society's web site.

The Committee and the Mayor of Chitenay have confirmed their invitation to the Trevithick Society to join in the 300th anniversary celebrations with their replica of Trevithick's 1801 steam road carriage and have ordered a tonne of coal for our use. The celebrations will include a journey to the impressive city of Blois, a Unesco World Heritage Cultural Landscape.

Papin's work with high-pressure steam brought about the pressure cooker and steel arm safety valve. His development of a piston in a cylinder followed von Guericke's work with the vacuum, formed the basis for Savery's 'Miners' Friend' and Newcomen's successful atmospheric engine. He worked with Boyle in England and was made a Fellow of the Royal Society. Like Newcomen he died in poverty somewhere in London.

The celebration will take place in a lovely area of France not far south of Le Mans. We would be delighted to hear from members who will join us on this expedition.

P.M.H.

THE RAIN IT RAINETH ...

As the rain continues to pour down, houses are flooded, trains cannot run to the West Country because the tracks are destabilized and buses cannot operate due to flooded roads; give a thought to the mine owners and their employees of old.

We know from the records at

Wheal Jane and Mount Wellington that there is a direct correlation between heavy downpour and the need to increase pumping from the bottom of the mine. The delay for the water to appear deep below ground is about six weeks. In a situation like this where it has rained heavily since the middle of last summer and the countryside would have been saturated down to working level, the mines would have been pumping continuously for several months with no sign of a reduction.

Years ago a similar situation would have been ruinous for all concerned. While the Cornish steam pumps would have been capable of draining a mine under normal conditions it is doubtful if any had the spare capacity to deal with the continuous influx of water. It would not have been possible, as it is today, to bring in additional electric pumps. The engines would have consumed expensive coal and required additional maintenance. At the same time access to the richer seams lower in the mines would have been difficult so the financial returns would have fallen.

This does not take account of the difficulties at ground level where water and mud would have interfered with the operations and made life insufferable. The overall situation is likely to be one where the mine owners would have run out of money, laid off staff and brought about industrial and social disaster. The industry could have been brought to its knees by the weather. Let's hope it stops raining soon.

P.M.H.



TREVITHICK SOCIETY PUBLICATIONS

From Holman Brothers to CompAir

The Story of Camborne's Engineering History



Clive Carter & Peter Joseph



TREVITHICK
SOCIETY PUBLICATIONS

REFURBISHMENT OF CROFTY'S HEADGEAR



South Crofty's iconic headgear is due to be refurbished, starting in February 2013. Cornwall Council will be overseeing the work on the New Cooks Kitchen head frame, and the two Grade II Listed engine houses at Chappel's Shaft, as part of the agreement with mine owners Western United Mines to enable new development and regeneration to go ahead in the area.

DRS Demolition National Ltd, from St. Austell, has been appointed to demolish the conveyor which carried ore from the head of the New Cooks Kitchen shaft to nearby ore bins. The conveyor is in a dangerous condition and no longer needed. Its removal will allow scaffolding to be put up around the head frame.

Refurbishment work will include grit blasting and repainting to prevent further deterioration of the structure.

KING EDWARD MINE

King Edward Mine Museum has been awarded £35,700 by the Heritage Lottery Fund to encourage more people to visit, learn about and enjoy King Edward Mine Museum, its mining landscape and the wider Great Flat Lode area. The grant has been match-funded with £10,000 from Cornwall Council and £2,477 from the Rural Development Programme.

The funding will support the development of a larger programme of events and activities for families, local

Our new book on Holmans, *From Holman Brothers to CompAir*, is selling well and attracted a very favourable review in *The West Briton*. It costs £18.50.

A second book published at the end of November was a short history of the unique Wherry Mine at Penzance. With its shafts some 200 yards offshore in Mounts Bay linked by a timber trestle to the machinery on dry land, the Wherry was a most peculiar operation, which attracted the attention of contemporary visitors in the early nineteenth century. *So Very Foolish: A History of the Wherry Mine, Penzance*, tells the story of this short-lived venture and that of the drilling which took place there in the 1960s. Peter Joseph's book is an A5 paperback of 44 pages and costs £4.99.

Graham Thorne

people and schools and will investigate the flora and fauna of the site and the archaeological remains in the vicinity of the 19th century South Condurrow Stamps Engine House. The project also aims to encourage more people to volunteer.

ACETYLENE GENERATOR



Back in August a call came out of the blue from a gentleman at St. Germans who explained he had an acetylene generator at his property and would rather have the space than its company. This prompted a visit from the writer to St. Germans investigate and assess the situation. The property in question, owned by Ann and Nick Drew, is a detached one close to the railway station and dates from the 1850s. At the rear of the property is a row of brick outhouses built into the steeply rising ground; the end one of which housed the acetylene generator, which was used to heat the domestic supply. The rising ground allowed a water tank to be situated conveniently adjacent to the generator house to supply the necessary water by gravity for the production of acetylene by the action of water upon calcium carbide. The discovery of acetylene was not made until a few years after the house was built so it was naturally felt that the plant post dated the property. A decision was made to preserve the plant and subsequently the writer accompanied by Huw Rowe, Alan Bingley and a box of tools visited St. German's to dismantle the kit on October 9th. The job itself turned out to be simpler than at first thought, and with good progress being made the equipment

was loaded and on its way to our storage facility at Portreath by early afternoon.

Referring to the picture the left hand cylinder was the outer part of the gas holder with the right hand cylinder sitting within it with a water seal between them and the inner cylinder rising and falling within vertical guides thus holding a supply of gas in readiness in the same manner as full size gasholders in the national system. In the picture the cylinder in the centre is the generator itself.

The manufacturer was Frederick Wise, variously described in trade directories as a plumber, sanitary engineer or acetylene engineer and whose workshop was in Plymouth. The cast plate on the cylinder reads "F. Wise, Acetylene Engineer, Beaumont Road, Plymouth" and claims the patent for the "Eclipse" model. The figures 1911 are hand punched onto the blank space and it is presumed this is the date of manufacture. Hopefully more research may uncover more information on this small company.

K.J.T.R.

MEMBERS ARRESTED AT OCTOBER MEETING!

The writer habitually unlocks King Edward prior to Society meetings but for the October meeting was unavoidably delayed and on arrival at King Edward found a queue of cars in the drive all under the control of PCSO Andy Richards, who, although off duty, was passing the site and saw what he felt was unusual goings-on and so investigated. "We're waiting for Kingsley" he was told. He dutifully waited until the writer arrived then departed happy in the knowledge the situation was under control. Andy is our beat officer and regularly calls at King Edward to check all is well. It is pleasing to have a good relationship with the law as these days they do not always fare too well in the publicity stakes.

K.J.T.R.



***Collaboration and Conservation:
Archaeological investigations during
the regeneration of Perran Foundry***

Archaeological Consultancy Ltd (AC) was commissioned by Pre-Construct Archaeology on behalf of Pears Style Developments and David Ball Construction to undertake monitoring of parts of the Perran Foundry conversion (NGR SW 77639 38496). Part of the Cornwall Mining World Heritage Site, the Grade 2 and 2* Listed workshops date from the 18th-19th Century. Perran Foundry manufactured steam pumping engines and iron mining parts and is the most complete foundry of

its date in Northern Europe. Established by the Fox family in 1791, it was owned by the Williams family 1858-1879 and was converted to a grain mill from the 1890s-1985, from which point it became increasingly derelict.

Working in close collaboration with Dan Ratcliffe (Historic Environment, Advice, Cornwall Council), Archaeological Consultancy monitored the conversion of the slate, granite and concrete block built Hammer Mill, Smith's Shop, Loam Moulding Shop and Old Office recorded on historic plans. They formed a linear block though only the north wall survived to the full length and almost its full height with some interior divisions. Careful planning and



Recording the foundation piling at the east end of the building.

painstakingly engineered approach have enabled the original features, including the iconic iron arch, to take pride of place in the new building. Machine bases, tracks, possible brick leats and a possible stamp as well as metal debris were recorded inside. Foundation piling revealed the underlying alluvial stratigraphy and a substantial historic wooden pile, probably from a quay predating the foundry.

Pre-Construct Archaeology has recently monitored service trenches through the Old Pattern Shop and Smith's Shop, recording well-preserved evidence for these buildings and their former use in the foundry. The monitoring has demonstrated the considerable archaeological potential that still survives beneath the new development of the site. David Ball Construction Ltd have kindly facilitated and supported the archaeological works. Further information can be found on their website: <http://www.davidballconstruction.co.uk/>

JOSIAH THOMAS MEMORIAL BUILDING

It is with great pleasure I can report that the above building has been listed by English Heritage as Grade 11. This is the only part still extant of the original complex used by the Camborne School of Mines that proudly stood in the middle of Camborne. It was in use until the new buildings for C.S.M. came into use in 1975, at Trevenson, Pool. More recently the C.S.M. moved to the Tremough Campus, at Penryn, of the University College, which is going to be renamed 'Falmouth University'. So the Camborne School of Mines began life in Camborne, moved to Pool, then to Penryn and is to be part of Falmouth University.

K.J.T.R.

Hayley Goacher BA (Hons) PlfA



Holding back the mud to record possible machine bases.

PUFFING DEVIL

After the West of England Steam Rally it was thought that the Puffing Devil had finished her outings for the year. Then in early September we had a request from the BBC who are filming a documentary series presented by Michael Mosley centred around the 300 year anniversary of Thomas Newcomen. We decided once more to go to Wheal Busy at Chacewater as it is one of the very few locations in the Camborne/Redruth area with a straight quiet road level enough for the engine to run on. It also has a suitable mining and countryside background ideal for filming (see front cover). The programmes are due to be broadcast early in the New Year.

The weather on the 13th November was kind to us and the engine behaved well, however, on this occasion we did not run low on coal or water as was the case on our last visit there. It was the second time that Michael Mosley had requested the engine and it was interesting to listen in on a discussion between him and his director when he felt that the script was not quite right. He is certainly a presenter who insists on the correct historical facts.

The boiler on the engine has now been drained ahead of the cold weather

and is back in safe storage at Merrymeeting Farm.

John Woodward

E-FAITH

The European Federation of Associations of Industrial and Technical Heritage

E-FAITH exists to promote co-operation and contact between volunteer organisations and sites across Europe and to hopefully exchange ideas, information and to provide support for the good of all. The meeting for 2012 took place over the weekend of October 26-27-28th, in London attended by some fifty delegates from ten countries. On my arrival it was a delight to realise there were five members for the society attending including the President of E-FAITH, Paul Sautler. The Tavistock Hotel, Russell Square was used as an operations base and was where many of the delegates stayed and was very convenient as Russell Square underground station just a few hundred yards away.

After registration at the hotel on Friday, under the direction of GLIAS (Greater London Industrial Archaeology



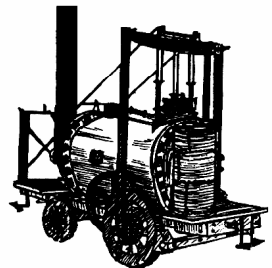
Society) members we were escorted to Bromley by Bow underground station from which a short walk took us to House Mill, the world's largest tide mill, operational from the 1770s until 1940. We were treated to refreshments and a guided tour by knowledgeable guides and felt very much at home as they were all volunteers. The building, of timber construction, housed a mill grinding grain for use in gin production. Some machinery is still extant but sadly a much was smashed out by the "scrappies" years ago. Their work is continuously ongoing to beat the ravages of nature (shades of King Edward!) and their hope is to restore one of the four water wheels. On the return journey we were taken on a short walk along the Bow Back Rivers to see the Olympic site and some of the civil engineering work being undertaken to the underground system in that area before gaining the underground at Pudding Mill Lane to return to the Tavistock Hotel.

Saturday morning saw us mustered for a trip on London's famous red buses to Whitechapel for a day of presentations at the Toynbee Hall. This area is interesting as it is on the cusp of the very rich City and the rather disadvantaged East End. At the Toynbee we were welcomed by Prof. David Perrett, Chairman of GLIAS with that being followed by the opening address by Geoff. Wallis looking at issues (or stupidities) relating to the application of health and safety interpretation, working and management of industrial sites and museums. The rest of the morning and early afternoon was filled by representatives of various sites presenting short talks outlining the pros and cons of their own operations, not least of which was our own Kevin Baker covering King Edward Mine. The clear message that came over was appreciate your volunteers and that diversification, not purism, was the way forward. A buffet lunch was kindly provided by GLIAS and the closing vote of thanks was provided by the President Paul Saulter. Late afternoon saw everyone back on the buses for an early evening visit to the Kirkaldy Testing Station at Southwark. David Kirkaldy was a Dundee

engineer who saw the need for a materials testing centre in the 1860s and this was operational until the 1980s when it was taken over by the volunteers who still man it today for demonstrative purposes. Thanks once again to GLIAS provided refreshments.

The Sunday saw us journey to South Ealing on the Piccadilly Line and thence a short bus ride to the Musical Museum in Brentford situated on what was the main to road the west in the pre-motorway era. Founded in 1963 in an old church but now in a modern building, it houses one of the world's largest collections of mechanical roll music and includes a Wurlitzer which is still used for tea dances, and on which we were treated to a short recital by the resident curator. This museum is but a short step from Kew Bridge Steam Museum and their John Porter came across to address us on the difficulties and perils of running such an establishment. John is well versed in the problems having been a volunteer at Kew for some thirty five years. The Kew Bridge Museum site was originally set up as the Grand Junction Waterworks Co. water pumping station in 1838 eventually becoming part of the Metropolitan Water Board. We then moved across to Kew Bridge Museum to view the many exhibits where it was a normal open day so we were mingling with members of the public. An attempt to run the 90in. proved difficult and, as I am sure most realise, these single acting engines do have a mind of their own occasionally! During the afternoon delegates gradually drifted away depending on their travel arrangements but so ended a really interesting and educative weekend. Next years meeting will be held at Neuchatel in Switzerland. Perhaps you will be there!

K.J.T.R.



TORDOWN QUARRY ENGINE

This is the sad story of our efforts to preserve this relatively rare piece of engineering. Way back in 2003 came a telephone call out of the blue from a gentleman who said, "I own a quarry and it contains an engine which I am happy to dispose of. Are you interested?" What a question to ask – the scorch marks still show on the A30 as we made our way to St. Breward! The said gentleman was David Clark who admitted he knew little about engineering but would be delighted for us to visit his site to assess the situation. The engine in question turned out to be a Ruston twin cylinder air start diesel, model 10 XHCE, rated at 156hp. at 245rpm. bearing works number 138506, and was virtually in working order being housed in a granite building with a corrugated iron roof and one which had seen better days. In its working life the engine drove a Canadian Pacific two stage compressor, and, through line shafting, cutting and polishing equipment in the adjoining sheds. The engine was sold by Ruston's in 1930 to an agent, Collins & Mason, Victoria Street, London who in turn supplied it to E. A. Simpson of Battle, East Sussex. On the records the latter name and address is crossed through and Wm. Nankivell & Sons, St. Breward is inserted. From this it is supposed that Messrs Simpson could have been feeling the effect of the recession of the time. The engine was then transported by rail to Wenford Bridge station and completed the short but steep journey to the quarry by road presumably by traction engine. The engine had an unusually heavy flywheel, eight tons, so it is probable that it was originally destined for electricity generation. Initially it was thought best to preserve the engine in situ but upon reflection it was felt the best plan was to dismantle it and transfer it to King Edward Mine where it could possibly be assembled with the air compressor. David Clark, who proved to be a larger than life character, was delighted that we were

interested and allowed us access at any time. Sometime later the society organised a field trip to the quarry and David and Angela Clark made us most welcome.

The serious task of dismantling then began with a small group of volunteers. Progress was somewhat slow due to health problems with one or two of the crew, occasional inclement weather and the fact that all the kit required had to be loaded and taken to the site for each visit as there was no secure storage available, however, in time three lorry loads of parts were transported back to King Edward. The scene then changed as David and Angela needed to sell the property and it fell into the hands of a couple from the London area. Initially they were very welcoming and we continued our work which was almost complete. Their plan for the enginehouse was to convert it to domestic accommodation, an interesting scheme in itself. We were now down to three large segments of the engine, the crankshaft, the crankcase and the flywheel plus the service girders and lifting blocks over the top. These needed a crane lift but the new owners would not allow the roof to be removed thus allowing vertical access. Their excuse was that they had an "expert" in and he said by removing the roof the building would be unstable. This "expert" was apparently unaware that in buildings such as this the walls are designed to take the weight of the service cranes. We however agreed we would wait until their builder was ready to start operations. A short while later we were suddenly given a months notice to remove our parts, a condition with which we could not comply as we could not get them out due to the stalemate over the roof. This was followed by a telephone call to say we were to make arrangements for them to visit King Edward to collect "their" parts, parts incidentally they would not recognise as they had been removed long before they even purchased the site. The story now took an unusual twist as we were told they wanted the parts back as they were going to rebuild the engine and have it working on another site. This was of course was most unlikely

as it would have been a very specialist job and beyond most people. The reason for the situation was now to become apparent, The new incumbents were worshipping The God of Greed otherwise the price of scrap as a telephone call from a machinery dealer then came enquiring as to who was the owner of the engine parts as he had suspected something was amiss when asked to remove them. At this point we took legal advice and then found the cost of the legal services to claim our property was so excessive that we had to withdraw. In addition there would also have been the cost of the crane and transport. This sad story certainly disproves the old adage "crime does not pay".

Ray Hooley of the Ruston archive will be informed so at least they have on record the fate of the engine.

The Society would like to accord thanks to Angela and David Clark for their kindness, help and consideration and to the massive efforts of volunteer stalwarts David Blight, Bob Drabwell, Huw Rowe and Ted Williams and thanks for occasional help from Kevin Baker, Alan Bingley, Charles Daniel, Frank Kneebone, Brian Johns, Pete Joseph, Don. Plimsoll, John Rodda and John Trewern all of whom helped to amass the almost three thousand man hours spent on the project.

K.J.T.R.

H.L.F. FUNDED DIGITISATION PROJECT

Work has proceeded on the first portion of the task to digitise our curatorial records to museum standard and make them available for education and research. This initial work has been funded by the Heritage Lottery Fund under their Your Heritage scheme and undertaken by Dr. Tehmina Goskar, MA, AMA (see her report which follows this one). She has had the unenviable job of establishing what has to be digitised, where it is and what provenance it may have. To do this she has had to travel all over Cornwall and,

meet with many people and organisations, and establish the true nature and location of our collection.

Like that in many similar organisations, the collection has simply accumulated over the years but the time has now come to regularise it and plan how we will behave in the future.

In the New Year we will publicly announce what we are doing and advertise the appointment of a coordinator to see the next phase through. He or she will be assisted by volunteers who will record and photograph items in situ and then create a digitised record on computer. Included will be the some 2,000 images that Pete Joseph has accumulated over the years. All this will eventually be made available on the www.

Applications for the interesting posts of coordinator and volunteers are invited to contact Sheila Saunders, the Membership Secretary either through our Post Office Box No. address or by membership@trevithick-society.org.uk. Posts will also be advertised in the West Briton and other newspapers.

P.M.H.

UNDERSTANDING OUR COLLECTIONS: AN UPDATE

The idea of the Trevithick Society's project Understanding Our Collections, funded by the Heritage Lottery Fund, is to be applauded. There is no single organisation with the depth of knowledge and experience of Cornish industrial and technical heritage as your society. For that reason I feel privileged to have been commissioned to undertake its first stage.

Why is the Trevithick Society's collection important?

The Trevithick Society has collected nearly 68,000 items and deposited them over 26+ sites. As such it is primarily a lending organisation and over

the years has attempted to identify the most appropriate location for documents and artefacts that bear testimony to Cornish industry and technology. This activity has saved and rescued what would otherwise have been lost or destroyed.

For more information on the history of the collections I refer you to our current Curator, Pete Joseph's article in the 2009 edition of the Society's journal.



Beam fragment made in Perran Foundry, 1815, outside Taylor's engine house, East Pool, erroneously repainted.

So far, so good?

Since October I have conducted an intensive series of site visits, assessments, interviews, correspondence, analysis and reporting. My task is to identify the risks and opportunities and produce a plan with achievable objectives that will place the collection on a more professional footing, and allow the Society to use it in a more beneficial way. I have been asked to give special consideration to how these collections can be accessed by audiences in our increasingly digital world.

The two main challenges facing the collection relate to:

1. the inaccessibility of about half of the collection.
2. how the responsibility for it is shared

between the Society and those to whom it lends.

At present there is considerable variation in access arrangements, from a real success story with the Redruth Brewery Archive, now almost fully listed by Cornwall Record Office, to a worrying state of affairs at the South West Film and Television Archives where researchers may be charged up to £150 per day to access the historical Holman films. By contrast industrial artefacts at King Edward Mine and East Pool Mine have suffered from a lack of research and only a partial inventory of items deposited at each site exists. A number of 'orphaned' items that are not integral to those sites need a new home.



Portrait of Jane Harvey Trevithick, Trevithick's Cottage, Penponds

What's the plan?

As each year goes by we are losing more opportunities to record and encapsulate the knowledge of the Society's industrial experts. From identifying the

function of historical tools and machinery to knowing where things came from, all of this information is just as vital as the object itself. Without it, the object becomes meaningless very quickly.



Man riding cage from South Crofty, now at East Pool Mine.

It is therefore my primary recommendation that this project strives to draw together as much information contained in and about these collections as possible. Formal loan agreements will be drawn up, a plan will be proposed for a temporary store for orphaned items where they may be catalogued and more easily accessed. Volunteers will be recruited early next year to help the Project Manager bring inventories up to date and conduct more focused research in the areas where I have identified gaps, and this information (data) will be organised into a single, publicly accessible, digital repository. At a basic level this will just be a brief description of an item and where it can be found. However a selection of items will be digitised and images, film clips and transcripts made available via a new website. The better organisation of the collections information will also help both the Society and those to whom it lends interpret them more accurately.



Tallow candles, Geevor Tin Mine Museum store.

Optimistic for the future

It is easy to feel overwhelmed at the size of the task ahead and therefore never make a start. However I hope that the plan I will be proposing shortly will be full of practical stages that can be easily achieved with a little dedication and willing hands. Ambition is critical. This project is the first step to ensuring this great institution has a sustainable future and is prepared to embrace a new generation of members whose reasons for getting involved in industrial heritage may be very different to your own. It is time to properly embrace global audiences as well as find new ways to involve local ones.

Tehmina Goskar (tehmina@goskar.com)



Cornish boiler, King Edward Mine.

HOME AT LAST!



It is looking increasingly likely that the Society will obtain the freehold of the former Homan Bros. showroom from Coastline Housing Limited. The building, shown above, is adjacent to the railway line near Camborne station. If successful the building will be used primarily for much needed storage.

P.M.H.

LEVANT REPORT

Record numbers of visitors approaching 29,000 have attended Levant this year. A plan of the mineral dressing floors dated 1860 has come to light and this covers the area north of the main Cornish stamps. It reveals two water wheels that we did not know existed before and advice has also been sought regarding the whole process from stamps to Brunton calciners.

Towards the end of the summer season a loud knocking noise started to emanate from the hotwell and at the same time the vacuum diminished to zero. The engine was immediately shut down and allowed to cool. Once the engine had cooled down steam was carefully admitted to the cylinder and the engine seemed to be free enough although steam was escaping into the cistern. Further careful running of the engine revealed that all appeared well for the first two or three minutes of running which proved that all was well with the condition of the air pump. However the same fault appeared and it was obvious that the condenser

dump valve was not functioning correctly. Once the cistern was drained it revealed that the linkage for the valve had rusted through, so that steam could emit from the condenser when stationary but once the engine was running and producing a vacuum, the valve would be drawn down to the closed position which would kill the vacuum and overheat the hotwell. A repair was completed the same day and the engine is now running as well as ever.

Ron Flaxman.

MEMBERSHIP RESOURCES

From time to time we meet up with members of this Society and call upon them for some skill or interest they may have. It's really astonishing what talents and interests we often find, sometimes hidden under the proverbial bushel. We want to know more about you, your interests and anyway you are able to move this organisation along.

When we traced a correspondent who had written to the Radio Times to voice his indignation over remarks made by Andrew Marr through his musical connections we discovered that he was also a member of this Society. Lance Dearsley described himself as having served a student apprenticeship in English Electric's 'werling engine' works at Rugby before spending two years cruising the Caribbean as an engineer on a submarine cable repair ship (Scotch boilers, triple expansion main engines, compound generators, 3-cylinder simple cable winding engines and even a steam rudder engine – in the 1960s!) He then read for a music degree at Durham University and devoted the rest of his working life to Adult Education and Community Services management.

Unsurprisingly, his life in 'retirement' revolves around his music – he writes concert programme notes for the Havant Symphony Orchestra, in which his wife plays, and his steam engineering – he helped restore his favourite locomotive,

Lord Nelson out of the shed for the first time and prior to first firing



Richard Maunsell's much-maligned 'Lord Nelson', as a member of Eastleigh Railway Preservation Society, and he is now working on another.

He admits to model engineering and adopting undervalued figures as his personal heroes: Trevithick, of course; and Maunsell, whose career was blighted first by Southern Railway electrification, then by his own poor health; and that former adoptive Cornishman Malcolm Arnold, whose magnificent music was rubbished by most of the musical establishment throughout his working life.

He has been heartened that Arnold's reputation has begun to rise in recent years thanks to able and sympathetic biographers. Trevithick's underrated status has clearly concerned him and he kindly took on the painstaking job of editing and proofing the forthcoming book based on the Oblivion of Trevithick, entitled, Inventive Genius – The Story of Richard Trevithick. He says he is occasionally tempted to try to do something for Maunsell by writing an appreciation of 'Lord Nelson'... That's something we will look forward to.

Please complete the questionnaire that accompanies this newsletter with as much as you wish to tell us about yourself and interests. Don't hide your light under a bushel, we very much need illumination!

P.M.H.

BOOK REVIEWS

The Bodmin & Wadebridge Railway 1834 – 1983. By Michael Messenger. Twelveheads Press. Hardback, A4, 192 Pages. £39.00. ISBN 978 0906294 76 5

We sometimes forget that one of the earliest public passenger railways in the United Kingdom opened in Cornwall in 1834. Now, to remind us, we have Michael Messenger's long awaited history of the Bodmin & Wadebridge Railway. And what a history it is. Here we read of the prolonged gestation of the line and the reasons why it fell, illegally, into the hands of the London & South Western Railway, to whose system it was not physically connected for over 50 years.

We also meet some of the characters involved with the railway. Mr Hayes Kyd, Manager and Superintendent for 27 years, is renowned for his authorising of free pints of cocoa to staff in lieu of overtime, though prior to his embrace of temperance in 1875 pints of ale were the norm. Kyd must surely be the only railway manager to have been a graduate of the Royal College of Surgeons. Samuel Worth, who joined the railway on its opening was Wharfinger at Bodmin for 56 years, only retiring when the new line reached Bodmin in 1895. He was the oldest station master on the L&SWR and died aged in 1902.

The book explains the role played by the line in the complex nineteenth century railway politics of Cornwall and, as

one might expect from Michael Messenger, there is a wealth of information on the mines and extractive industries of the area and their connection with the railway. The line's fascinating locomotives, including the original Camel and Elephant and the legendary trio of Beattie well tanks – two of which thankfully survive – are covered in detail, as is the remarkable survival of the four original passenger carriages, which entered preservation as early as 1895, and can still be seen at the National Railway Museum in York.

This is not a cheap book but it is the definitive history of the Bodmin & Wadebridge Railway and will surely remain so for the foreseeable future. Design and layout is to the standards we have come to expect from Twelveheads Press over 35 years of specialist publishing. It is well illustrated with a mass of original documents, many reproduced in colour and a number of new or unfamiliar pictures.

The Bodmin & Wadebridge Railway is clearly the fruit of many years of patient research by the author. It is also the human story of a fascinating little line, done full justice at last. It can confidently be recommended to all with a serious interest in Cornwall's railways and their history.

GT

Inclined Planes in the South West. By Martin Bodman. Twelveheads Press. Softback, 128 Pages. 142 illustrations. £15.00. Free postage from the publisher. ISBN 978 0 906294 75 8.

The south west is a fertile hunting ground for inclined planes due to its undulating geography and the long history of industrialisation, which necessitated the movement of immense volumes of goods from the mines, quarries and factories. Transporting goods up and down steep slopes was a difficult problem for both canals and early railways and hauling up inclined planes, using cable, ropes or chains, offered an effective engineering solution in many situations. It was also

a favourite solution for haulage to and from many mines and quarries and was frequently used in the China Clay district to create the sky tips that once dominated the landscape.

The bulk of the book consists of a gazetteer of 220 inclines, many of which are but traces in the landscape, whilst others remain major features and a few are still in use today such as the Lynton funicular. Each incline is briefly described in an interesting and non-formulaic fashion, and there is a liberal sprinkling of photographs, maps and drawings, which add context to the text. The maps are very clear and the engineering drawings of machinery are especially good, making it easy to understand how the mechanisms worked. The black and white photographs are a good blend of historic and recent images and complement the text throughout.

The gazetteer is subdivided into eleven geographic areas and the total coverage is from Bristol Avon and Dorset in the east to West Cornwall. It does not attempt to provide a comprehensive list of inclined planes. Instead it describes a representative sample, ensuring there is plenty to search for in each of the geographic areas, and in totality covers the breadth of what is a surprisingly varied subject.

This book provides a very useful summary of the inclined planes that enabled the once extensive freight network to overcome the most difficult gradients. The introduction is concise and does explore the variety of inclined planes but would have benefited by some analysis of the inclined planes as a whole - how many there were, the proportion of each type, changing numbers over time, etc. That bit of icing aside, the cake itself is rich and very well put together.

Inclined Planes must be one of the least covered aspects of the railways and, in the immense jigsaw of industrial archaeology, it is pleasing that one more gaping hole has now been filled.

CNF

SOCIETY MEETINGS

Society Programme

2013

Friday 11th January. KEM.

The story of Morwellham. by Anthony Power.

Tuesday 15th January. ECB.

Quarry Memories: an oral history of granite and limestone quarries in Cornwall and Devon. An illustrated talk by Dr Kayleigh Milden Project Officer of Peninsula Quarry Industry Social History Trust.

Friday 8th February. KEM.

The Cornish wives 'left behind'. by Lesley Trotter.

Tuesday 19th February. ECB.

Lead Mining in Cornwall: an overview. by Colin Short.

Friday 8th March. KEM.

Possibly on ... *The Redruth & Chasewater Railway.* by Eric Rabjohns.

Tuesday 19th March. ECB.

Underground Devon and Cornwall. by Dave Warne, Chairman of the Plymouth Caving group.

Friday 12th April. KEM.

Smelter's Choice: The Copper Business in the 1820s and 30s. by Dr. Tehmina Goskar.

Saturday 20th April. ECB.

1.30pm Calstock Station Car park.
Calstock a Victorian Inland Port. A walk around the Danescombe Valley and Calstock. by Steve Docksey, experienced guide and local historian. Stout footwear recommended.

Saturday 27th April.

Camborne Trevithick Day.

The West Cornwall Branch meets at King Edward Mine (KEM) at 7.30pm on the 2nd Friday of the month.

The East Cornwall Branch (ECB) meets at the Public Rooms at Liskeard and start at 7.30pm, unless stated otherwise.

Contacts

Colin Short,

Programme Secretary,
22, Lower Woodside,
St.Austell.
01726 61697.
Colin@biblechristian.freeserve.co.uk

John and Cheryl Manley

East Cornwall Branch,
28 Fairfield,
St. Germans.
PL12 5LR
01503 230768
teammanley@hotmail.com

For up-to-date news follow us at:
<http://teammanley-ts.blogspot.com>

Non members are welcome to all talks.

AGM 2013

The A.G.M. weekend for 2013 will be centred on St. Agnes and the A.G.M. and the Annual Dinner will be at the Tywarnhaile Inn at Perranporth on Saturday, May 11th. 2013. Final details and booking forms will be enclosed with the next newsletter.

TREVITHICK SOCIETY OFFICERS AND OTHER REPRESENTATIVES



President: Bryan Earl



Chairman: Philip Hosken

3 Park Road
Redruth TR15 2JD
chairman@trevithick-society.org.uk



**Vice-chairman/Promotions Officer:
Kingsley Rickard**

k.rickard@talktalk.net
Tel: 01209 716811



Hon. Secretary: Roger Mason

PO BOX 62, Camborne. TR14 7ZN
Tel: 01872 553488
roger.g3tdm@virgin.net



Journal Editor: Owen Baker

Tamarisk, Lowertown, Helston,
TR13 0BU.
Tel 01326 560970
o.baker@btinternet.com



Newsletter Editor: Dr. Colin French

12 Seton Gardens, Weeth Road,
Camborne, Kernow. TR14 7JS.
Tel: 01209 613942
cnfrench@talktalk.net



**Publications Secretary:
Graham Thorne**

11, Heriot Way, Great Totham,
Maldon, Essex CM9 8BW
Tel: 01621 892896
publications@trevithick-society.org.uk



**Membership & Subscriptions:
Sheila Saunders**

PO BOX 62, Camborne. TR14 7ZN
membership@trevithick-society.org.uk

East Cornwall Branch

John and Cheryl Manley
28 Fairfield
St. Germans
Cornwall
PL12 5LR
01503 230768
teammanley@hotmail.com



**Communications Officer:
Kenn Shearer**

kernowkenn@gmail.com
Tel: 01209 832039

Curator:

Pete Joseph

curator@trevithick-society.org.uk

Treasurer: Chris Coombes

The Trevithick Society, a registered charity, is a recognised body of the study of industrial archaeology in Cornwall. Membership is open to all who are interested in the region's great industrial past, whether or not they live in Cornwall. The Society takes its name from one of Britain's foremost inventors and pioneers of the Industrial Revolution, Richard Trevithick, a Cornishman whose name is inseparable from the development of steam power. This newsletter is published quarterly and, together with the annual journal, is distributed free to members. Letters and contributions are always welcome and should be sent direct to the editor.

The views expressed in this newsletter are those of the authors and not necessarily those of the Trevithick Society.

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PO BOX 62, Camborne. TR14 7ZN

The Chatline: 01209 716811

<http://www.trevithick-society.org.uk>