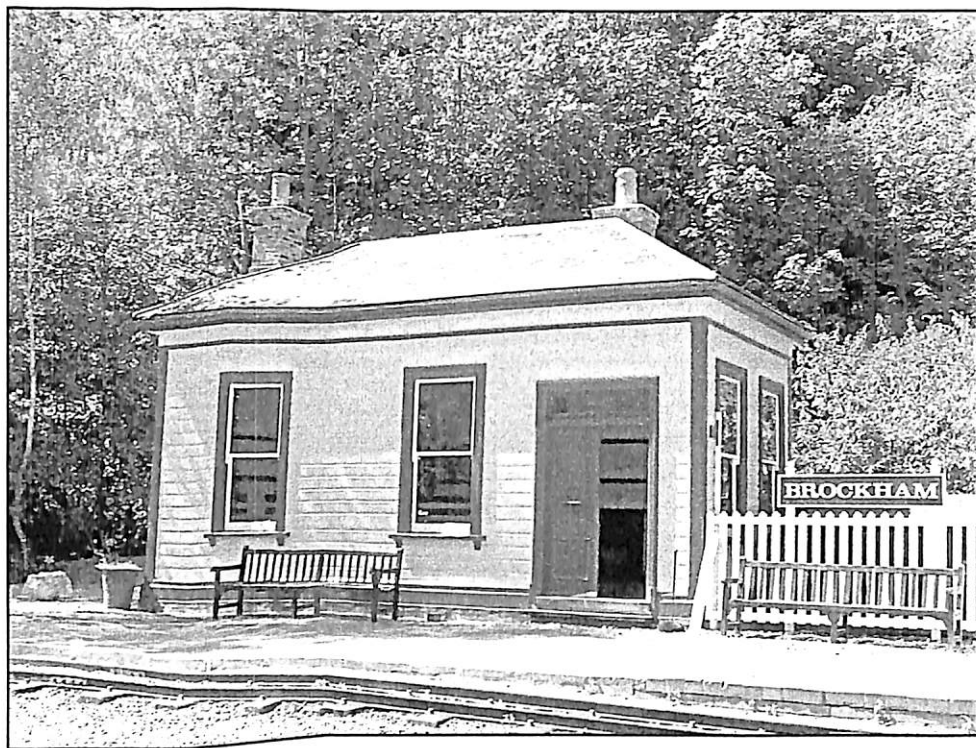


Sussex Industrial Archaeology Society Newsletter



Number 132

October 2006



Hove Ticket Office at Amberley Working Museum

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Cover Photograph Hove Ticket Office at Amberley Working Museum.

This Grade II listed ticket office, built in 1893, was removed from Hove Railway Station in May 2004, taking five weeks to dismantle. Detailed sketches were made and many photographs were taken prior to it being stored in a Sussex barn. The structure was then re-erected at Brockham Station at the east end of the narrow gauge line at the Museum in January 2006. Only one chimney pot survived, the other chimney was made by the pottery at Amberley. 90% of the roof is fitted with original slates and the visible brickwork is constructed of the original bricks. The project was financially supported by the Railway Heritage Trust and valuable advice provided by the conservation team at Brighton and Hove City Council.

EDITORIAL

Robin Jones

I have been particularly encouraged by the many contributions that I have received for this issue covering a wide range of subjects. This has resulted in an issue of 28 pages, which I hope members will find provides a variety of topics to suit all interests.

FORTHCOMING EVENTS

Pat Bracher

Saturday 21st October at 7.30 p.m. at West Blatchington Mill Barn.
A talk by Alan Crocker on '*Gunpowder Mills*'.

Saturday 18th November at 2.30 p.m. at West Blatchington Mill Barn. AGM followed by a talk by Ron Martin on '*Ice Houses*'.

Saturday 27th January 2007 at 2 p.m. at West Blatchington Mill Barn. SIAS members are invited to the Brighton Circle meeting.

Saturday 27th January 2007 at 7.30 p.m. at West Blatchington Mill Barn. '*Railway Development at Newhaven*'. A talk by John Blackwell who takes a look at the Industrial Archaeology of the area.

Tuesday 13th February 2007 at 7.30 p.m. at East Pallant House, Chichester. Annual joint meeting with Chichester Museum Society. A talk by Howard Stenning, Director of the Amberley Working Museum on '*Cycling through History*'.

EVENTS FROM OTHER SOCIETIES

Malcolm Dawes

Detailed below are events organised by other societies, which may be of interest to our members. If you have details for future events please send these to Malcolm Dawes, 52 Rugby Road, Brighton, BN1 6EB or e-mail to malcolm.dawes@btinternet.com.

Saturday 21st & Sunday 22nd October. *Giants of Steam weekend.* Bluebell Railway. 01825 720800.

Sunday 5th November. *London to Brighton veteran car run.*

Sunday 5th November. *Vintage bus running day.* Bluebell Railway. 01825 720800.

Wednesday 8th November, 7.45 p.m. *Brighton trolleybuses.* Tramway and Light Railway Society talk by Andrew Henbest. £1. Deall Room, Southwick Community Centre. 01273 512839.

Saturday 11th November, 10.30 a.m. to 12.30 p.m. *Transport Film Show and Coffee Morning.* Films include Canadian Steam, Early Flying and 1970s Road Transport. £2.50 includes tea/coffee and biscuit. Hailsham Pavilion, George Street, Hailsham. 01323 841414.

Friday 10th to Monday 13th November. *Terrier weekend, including visiting locomotives.* Bluebell Railway. 01825 720800.

Monday 13th November, 7.30 p.m. Andrew Marshall gives an account of his experiences working for Southern Trains. Southern Electric Group, Sussex Branch. £2. Deall Room, Southwick Community Centre. 01273 504791.

Tuesday 14th November, 7.30 p.m. *Horse drawn railways.* Kent & East Sussex Railway, Sussex Area Group talk by Nick Kelly. Westham Village Hall, nr Pevensey. 01323 845108.

Wednesday 15th November, 8.00 p.m. *Bexhill to Rye – LB&SCR to SER.* Sussex Transport Interest Group talk by SIAS Chairman John Blackwell. £2. Brighton Model Railway Clubrooms, London Road Station, Brighton. 01273 512839.

Friday 17th November, 7.00 p.m. *Bus transport.* Polegate and Willingdon Local History Society talk by John Bishop. St.John's Church Hall, High Street, Polegate. 01323 485971.

Saturday 25th November, 10 a.m. to 12.30 p.m. Society of Bexhill Museums course entitled *Brickmaking* by Mollie Beswick. To be held in the Education Room, detached from Bexhill Museum, Egerton Road,

Bexhill overlooking Egerton Park. £6. Pre-booking essential and numbers are limited. Telephone 01424 212433 for a booking form.

Saturday 25th November at 2.30 p.m. *Townscape of Brighton and Hove 1906-2006.* Brighton and Hove Archaeology Society Local History Centenary talk by Geoffrey Mead. Central United Reformed Church Hall, Blatchington Road, Hove. Small charge for non-members. Details on www.brightonarch.org.uk.

Monday 11th December, 7.30pm. *Diesel Hydraulics.* Kit Wingate concludes the year with a nostalgic look at traction that replaced steam. Southern Electric Group, Sussex Branch. £2. Deall Room, Southwick Community Centre. 01273 504791.

Tuesday 12th December, 7.30pm. *European Steam on DVD.* Kent & East Sussex Railway, Sussex Area Group presentation by John Jones. Westham Village Hall, near Pevensey. 01323 845108.

Friday 15th December, 7.00pm. *Kent and East Sussex Railway.* A Polegate and Willingdon Local History Society talk by Tim Lawrence. St.Johns Church Hall, High Street, Polegate. 01323 485971.

Saturday 23rd and Sunday 24th December. *Victorian Christmas Special Trains – new for 2006.* Operates between Horsted Keynes & Kingscote, Bluebell Railway. 01825 720800.

Erratum to *Sussex Industrial History*, Issue 36, 2006

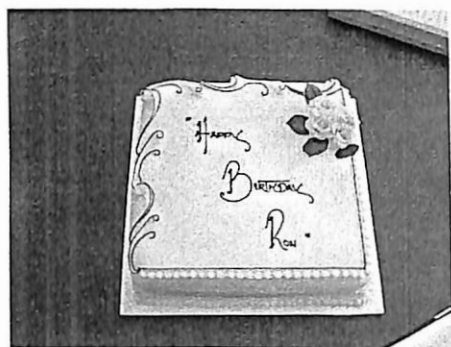
John Blackwell

Page 42. The heading to Table 2b should read 'Every Fluted Columns, no lettering, assumed 1926 to 1951'. The heading for 'Table 3 should read LB&SCR ex. Lewes Station posts'.



RON MARTIN – EIGHTY AND STILL GOING STRONG

At the committee meeting held at Amberley Working Museum on Saturday 15th July, members presented the Hon. Secretary Ron Martin with a special cake to celebrate his 80th birthday and to thank him for all the work he has done, and continues to do, for the Society.



80th Birthday Cake presented to Ron.

John Blackwell, right, with Ron Martin about to cut the cake.

Photographs taken by Peter Holtham

HASTINGS PIER CLOSES FOLLOWING SAFETY CONCERNS

Robin Jones

It was reported during June 2006 on local TV News and in the Hastings & St. Leonards Observer dated 23rd June, that Hastings Council made a shock decision to close Hastings Pier for safety reasons. It was closed after the towns marketing manager Kevin Boorman read a damning report from marine engineers Gifford of Southampton, who were called in after the council was informed that pieces of metal were falling from the ageing structure. The borough engineer contacted these experts to conduct a thorough survey, which showed the that structure of the pier to be in a poor condition. One of the supports had a gaping hole in it caused by rust. Tenants who run businesses on the pier were shocked and appalled at the situation after they were given only three hours notice to vacate the pier highlighting the seriousness of the problem.

Construction of Hastings Pier commenced on 18th December 1869

and the pier was opened by the Earl of Granville, Lord Warden of the Cinque Ports at a ceremony on Monday 5th August 1872, the country's first ever Bank Holiday. Designed by the famous engineer Eugenius Birch, at a cost of £23,250, the original pier was modelled on Brighton West Pier but unlike its Brighton counterpart, which had its pavilion added in 1893, it included an oriental style pavilion capable of seating 2,000 people. The pier is 910 feet long. Disaster struck on 15th July 1917, when the pavilion was destroyed by fire, eventually being replaced by a much less elaborate structure in 1922. A pavilion was built at the shoreward end in 1926, embellished by an art deco façade in the 1930s. Paddle steamer excursions operated from the pier to Eastbourne, Brighton and also across the English Channel to Boulogne. During the 1960s and 70s Hastings Pier became a mecca for many top rock acts of the time. The pier then went into decline and it was hoped an application for millennium funding in 1996 would help revitalise its appeal, but the application was rejected. Hastings Pier was subsequently put up for sale for £3.5 million and was closed to the public when its owners went out of business, until it re-opened in May 2001.

How long the pier will be closed is dependent on how soon the structure can be made safe to allow it to open again for the public. However BBC South East News on 16th July reported that the traders on the pier who operate at the pier entrance could continue, as the failure in the structure had occurred further along the pier. The Council has therefore allowed the entrance to the pier to re-open but the remainder continues to be closed until the structure is repaired.

HASTINGS TRAMWAYS IN BEXHILL

Robin Jones

The Centenary of Hastings Tramways in Bexhill was commemorated on Sunday 30th July, when a cavalcade of model trams on trailers and vintage buses left Bexhill Sailing Club at 12 noon for Cooden. The Hastings Tramways Company commenced a public service on 31st July 1905, with the line finally reaching the isolated outpost of Cooden on 28th July 1906. The cavalcade followed the tram route to Cooden then on arrival at the Cooden Beach Hotel, a commemorative painting by Mike Turner showing two trams in Devonshire Road, Bexhill was unveiled. The cavalcade passed Bexhill Museum in Egerton Road, where an exhibition about the trams was on display. This mainly

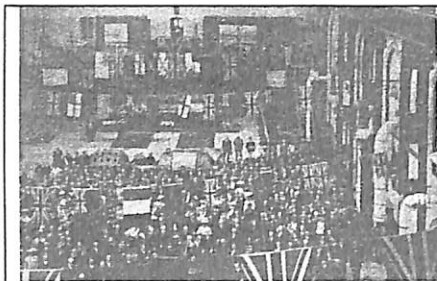
showed photographs of trams in Devonshire Road and at the Cooden terminus as well as exhibits including two original frosted and lettered glass top lights, and a length of cable from tramcar No. 43.

Further paintings by Mike Turner are on show in the Artists Van on Platform 1 of Horsted Keynes Station on the Bluebell Railway, while information about the tramways of Hastings can be found in the Middleton Press book *Hastings Tramways* by Robert Harley.

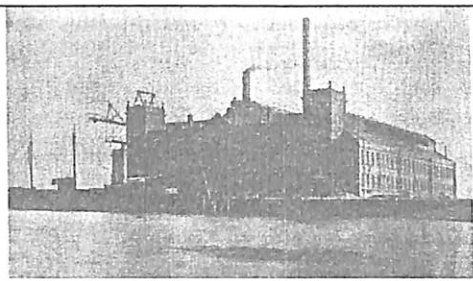
SOUTHWICK POWER STATION

Mike Hearn

An important local anniversary passed on the 16th June 2006 with no ceremony or mention in the local press to mark the occasion. Indeed, one hundred years ago, on 16th June 1906 the Southwick Power Station was officially opened by Mr. John Burns MP, the President of the Local Government Board, the organisation that approved all the essential finance to enable Brighton Corporation to build the new Power Station. The occasion was marked with much pomp and ceremony on that day, and much earlier, the visiting dignitaries had enjoyed a pleasant luncheon at the Royal Pavilion, Brighton where John Burns joined the Mayor of Brighton, Alderman James Colburne JP, members of the lighting committee and a number of guests.



The Opening Ceremony 1906

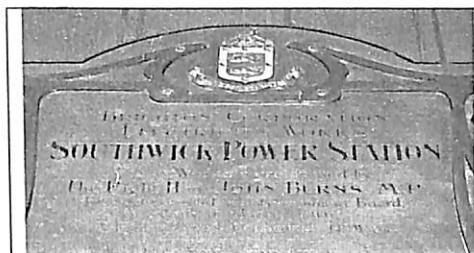


Southwick Power Station in 1906

The station's foundations were laid as early as 1902, and it was planned to have the first generator on load by 1st September 1904. But due to construction difficulties it was a year later when this happened. The station cost £350,000 to build, and it was at a time when the profits made by the electricity undertaking were increasing substantially. In 1892 a profit of £12 had increased to £5,000 only two years later, with 1,300 consumers. Already the North Road Power Station site had

been extended to such an extent that by 1899 it is clear that there was no further room available, with local electricity demand still increasing. Furthermore complaints from local residents about the nuisance caused by the steam and smoke were the norm, and the movement of both coal and ash became an increasing problem.

Arthur Wright, as Engineer-in-Charge of the Electricity Department, suggested that a new power station should be built at Southwick, on a 10 acre site on the eastern side of Shoreham Harbour. In 1924 a major plant extension occurred. In 1926 it became a "selected station" in accordance with the 1926 Electricity Supply Act and fed into the newly formed 132kV grid system in the UK operating at a standard frequency of 50 hertz. Throughout its existence the station had numerous plant changes in order to keep it modern and ahead of any increases in demand. Such installations were marked with the usual pomp and ceremony.



Southwick Power Station Plaque 1906



Southwick Power Station in 1938

After the WW II and following the increase in nationwide electricity demand a second station was sanctioned at Southwick in 1946, and was completed in 1952. In 1948 the electricity supply industry was nationalised and taken into public ownership. Brighton Corporation was divested of its responsibilities for both stations and the British Electricity Authority, later to become the Central Electricity Board, became the new owners. The stations were designated Brighton "A" and Brighton "B."

By 1969, a partial plant closure occurred at the Brighton "A" Station as Boilers 1, 2, 3, 4 & 9 together with generators 1, 2, 3 & 4 were decommissioned. Sadly it meant that the writing was on the wall for the station. The 1970s saw efficiency problems with the remaining plant and sporadic demand. But nevertheless the plant saw some use

right up to the end. Closure was announced on 15th March 1976. By 1977, demolition was in progress and today very little of the old "A" station is visible, on what is now a barren area. The cream coloured chimneys of the "B" Station would also be removed from the landscape by 27th September 1998, but that is another story!

The photographs in the above article are from the EDF Museum at Amberley, and are reproduced with permission from John Narborough, the Curator.

THE SUSSEX TRUG INDUSTRY

Robin Jones

Trug making is a traditional craft which has been established in Sussex for at least 200 years. Thomas Smith invented the Sussex Trug in 1829 based on the idea of the 'trog', an Anglo Saxon word meaning wooden vessel or boat shaped article. Originally used as measures or scoops for grain, they have become world renowned for their strength, durability and usefulness. Trugs are still made near Herstmonceux at The Truggery, Coopers Croft in the traditional way. The first part of the trug to be made is the handle and rim using sweet chestnut (*Castanea Sativa*), introduced by the Romans to Southern England from Spain. The climate in this area is ideal for sweet chestnut, which grows rapidly. Straight poles of chestnut known as coopers poles or trug bats are selected. The wood is split with a cleaving axe and is then hand shaved on one side by a craftsman sitting astride on a shaving horse and using a draw knife to produce a smooth handle and rim. After steaming, the chestnut is bent around wooden formers. Next the boards of cricket bat willow (*Salix Coerulea*) are sawn to the appropriate width and shaved smooth. Finally they are dipped in boiling water to make them pliable and nailed into the frame.



Trug making was a well established craft in the region and farmers all over the country found these strong baskets invaluable for gathering crops and measuring or bagging grain. Regular carriers would pass with horse and cart to collect consignments bound for nearby railway stations and onwards to all parts of the world. Apart from agricultural

use, they were popular items at Victorian bazaars where ladies bought them to use for collecting eggs, displaying flowers or as needlework or knitting baskets.



The Truggery at Cooper Croft, near Herstmonceux

NARROW GAUGE PREPARES FOR WAR! Peter Longstaff-Tyrrell

Commercial narrow gauge railways may lack the charisma of their conventional cousins that carry passengers and freight. However the economics and flexibility of these diverse and diminutive lesser gauge lines on works sites and amusement parks continues to play a vital role for numerous organisations. The scantily recorded role for narrow gauge lines in East Sussex during the early 1940s was their use as moving target lines for the Army. Personally this has become a side issue to other research and the ensuing is a summary of sites and activities known as so far gleaned.

1. South Hill, Seaford *Armoured Fighting Vehicle ranges - moving target railway*

The familiar concreted tank road up South Hill, from Chyngton Farm at Seaford, is maintained by Lewes District Council and provides public access to the Seaford Head. The old farm track was metalled by the Pioneer Corps in 1941 and leads to the concrete loops that were laid in

1942 by Canadian engineers of the Cavalry Toronto Regiment RCA. Training took place with tanks circulating around the artificial roads and firing out to sea at mobile targets mounted on partly submerged narrow rail track.

Up on South Hill itself the concrete tank roads and three loops are now reverting back to nature, whilst a fourth loop to the west has been partly covered by the golf course. The complex of military roads in the downland area were generally ordered by East Sussex County Council in 1946 to be lifted and the land restored to its original condition.

Colin Hicks of Portslade recalls . . . "as a lad swimming at Cuckmere often in 1944-1945. With friends they played at Seaford Head and amused themselves on a narrow gauge railway laid for about a mile on meadows leading down to the cliffs west of Hope Gap. The object of their games were small quarry type trucks with Army targets in the shape of a tank for shooting practice. [These quarry type trucks would be the sort seen now at Amberley Working Museum.] The line started from South Hill Barn in which there was a winch used for hauling trucks back up the slope from the cliff edge. The lads used to push the trucks back and then ride on them downhill!"

The South Hill track carried 3 four-wheeled chassis in a 4 foot deep trench that ran out of the south aspect of the barn. The frame carried a target mock-up that appeared level with the field's surface for tank for gunnery practice. Former staff of B. Berry & Son's forge in Seaford recall that the tank target was often taken into them for straightening out. South Hill Barn was known locally as Beggars Barn.

2. Belle Tout, East Dean Target railway

An Army concreted farm track is extant opposite Belle Tout lighthouse towards Cornish Farm - off the cliff top road that troops metalled from East Dean to Beachy Head. There was also a target line nearby across Shooters Bottom along the top of the cliffs.

An eyewitness report by James Doone in the *Sussex County Magazine* mid 1947 states that in "1941 tanks were skirmishing all along the Downs and about 200 yards east of Belle Tout a firing range was being constructed. It consisted of a light railway crossing the valley formed by two hills, on one of which stands the old lighthouse. The rails ran part of the way up this hill, finishing in a deep dugout. Inside this hollow was an old vehicle minus its tyres - the back wheel was

used as a winch to tow a life-sized target of a tank along the rails. Soon afterwards firing began and by 1942 it was incessant from dawn to dusk, never stopping, not even on Sundays. Almost every kind of gun was in use, from cannon to light howitzers and training crews arrived in relays”.

Writing from Dartmouth in 1998 John K. Smith recalls . . . “as an 11-year old lad seeing a flat outline of a tank constructed of tubular steel covered with black hessian that ran back and forth on a rail beside the lighthouse. Anti-tank guns fired across the valley at the target and shots at Belle Tout achieved a spectacular target. We visited gunnery and infantry training areas and had the Downs and military hardware left behind to ourselves”.

An extract from the WW II *Regimental History of the 23rd Field Regiment RCA*, reads . . . “A regular feature of training which evoked a lot of interest was the anti-tank shooting carried out almost weekly on the Belle Tout cliff-top ranges near Beachy Head. Two wood and burlap tanks used to run along a runway at varying speeds, looking fairly large, but actually not too easy to hit. The AP shoot would slice a hole through the burlap, or miss completely, and then ricochet up into the battered old lighthouse [Belle Tout] behind the range or else career crazily out to splash in the English Channel”.

A depression across the coast road near Belle Tout indicates where the submerged track ran.

3. Drusillas, Berwick *Light railway*

The miniature railway had been an original feature of the Drusillas attractions in the early 1930s. This novelty loco and line consisted of a short trip down to the Cuckmere River. The track was nine-and-a-half inch gauge, laid under the supervision of Clifford Parsons and R.H. Morse of Brighton who also built the locomotives. The first engine to run was an orthodox steam unit in the style of the LBSCR Stroudley D class which gave valiant service until the 1-in-50 incline created problems when loaded with passengers. Morse built another unit with a Citroen 7 engine, on eight-inch diameter wheels. The actual locomotive was last heard of in private hands at Reigate.

These Drusillas railway operations terminated with the advent of WW II when in 1940 the track was reportedly lifted by Canadian troops and relocated.

In his book *Sixty Years of Narrow Gauge* Colin Huggett says in WW II Rustons built engines for MoD sites. In 1943 they supplied ten 20DLS diesel engines. One bore the serial number L2262941 and was discovered in 1973 at a Neasden dealer's yard and was bought by Drusillas and sent to the British Engineerium in Hove for reconditioning. Acquiring a steam replica body it arrived back in 1974 with five boat-end carriages.

In the spring of 1946 a circular two-foot gauge track was laid at Drusillas using new rails, most of the rails though and all the sleepers were former War Office stock. It has been suggested that WD track and sleepers were donated by the Army to replace the original narrow track requisitioned in 1940. Standard military gauge for target range sites at the time was the two-foot gauge as adopted by Drusillas.

What actually became of the Drusillas pre-war railway track is questionable. What is fact is that in the 1950 handbook *Light & Miniature Railways* by E.S. Tonks the following entry is made . . . "Drusillas Tea Cottage, Berwick, Eastbourne. Gauge 9-inch. One steam loco, details unknown. Line requisitioned by Canadian Army for anti tank practice c1940. Re-laid with 2 foot gauge track with the following loco - 4w Petrol. Planet 3116/46".

A contact at the *Narrow Gauge Railway Society* states that the line was purchased during the war by Claude Jesset and it ran at Tinkers Park, Hadlow Down, for many years before they upgraded to 60cm gauge. Knowing of the resourcefulness of the late Claude Jesset, and his obsessive collections, it is thought that he may well have acquired the Drusillas railway line and not the Army.

4. Crowlink, East Dean *Target line*

An associate in East Dean and Friston local history circles first brought to my attention a target line at Michel Dene near Birling Gap. This was located at 90 degrees to the cliff edge. Subsequently a retired coast-guard colleague commented that . . . the rails were coming out [jutting] from the cliffs until the 1980s.

As a jaunt in mid 2005 a friend and I walked *under* the Seven Sisters cliffs from Birling Gap to Cuckmere Haven - it takes about two hours and the tides have to be checked first. There on the beach below cliffs by Michel Dene we spotted, lying at right angles to the foot of the cliff face, a pair of narrow gauge rail tracks - which were duly

photographed. This endorsed precisely what the coastguard had stated. The sections of track seemingly had dropped onto the beach after fifty plus years of cliff erosion.

5. Balsdean, Rottingdean *Army training grounds*

Poor, poetic, Balsdean lay in the middle of the South Downs Training Area. East. Sheet 134. In 1942 the Army commandeered the farm and gunnery, and troop activity took place in the valley.

Over the next couple of years the hamlet was devastated by shelling. All the farm buildings, the chapel, homes and Regency farmhouse were savaged to the extent that Balsdean was never rebuilt.

A target line had been established in a figure of eight by the hill side opposite the farmhouse. The downland bore the cruel scars of shelling until the area was cleared and reverted to agriculture in the early 1950s.

Any further information of this overall subject would be appreciated by contacting the author on
01323 487170 or e-mail peter.longstafftyrrell@tesco.net.

Sources:

"The Hunns Mere Pit - the story of Woodingdean and Balsdean". Peter Mercer with Douglas Holland. The Book Guild Ltd, Lewes, 1993.
"Operation Cuckmere Haven". Peter Longstaff-Tyrrell. GoteHouse Publishing 1998.

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- C/C 69 173. Tank roads and civilian tracks.
- C/C 153. Army Clearance of Defence Works.
- C/C 69 164. Downs Clearance map.
- CD 19/183. Civil Defence files.
- CD 20-22. Civil Defence Incident Book.
- C/C 54-70. ESCC Clerks Department files.
- CD 20. Civil Defence incident Book.

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- ADM 1 13394. Cables to Belgium and Holland cut in 1940.
- ADM 1 19895. Post Office cable ships.

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WO 244 60 and 61. Directorate of Signals, Diaries.

WO 199 339. Decoy Sites.

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WO 166 9776. Home Forces War Diaries.

WO 193 212. Code names.

DEFE 1 389. Proposed censorship management for international R/T Services.

25 YEARS OF MIDDLETON PRESS

John Blackwell

Railway historians and enthusiasts, particularly in London and the south, owe a debt of gratitude to our member Vic Mitchell for producing a superb coverage of the region's railways and latterly tramways.

To celebrate the 100th anniversary of the opening of the Chichester to Midhurst branch on 11th July 1981 he and co author Keith Smith arranged a charity event entitled, if I recall correctly, "Ride the line, walk the line and fly the line" where they also promoted their first publication "*Branch Lines to Midhurst*" in the now familiar Middleton Press format of informatively captioned photographs (the indispensable large scale maps of each station were to follow a few years later). The ride on the line was a short trip by Diesel Electric Multiple Unit to Brandy Hole Lane Bridge from Chichester yard, the route was walkable, with various diversions from the site of Midhurst station to Lavant and if you could afford it the route could be flown from Goodwood airfield; a memorable day. The book was spectacularly successful with 1,200 copies being sold by September. "*Branch Lines to Horsham*" followed in 1982 and by 1992 the 100th title appeared and all Sussex railways had been covered; currently there are over 300 titles.

Attendees at SERIAC this year will remember Vic recalling various inventions and ventures he has been involved with and I can recommend his autobiography "*Mitchell and Company*" published, of course, by Middleton Press which charts his full and interesting life with humour and affection. Here's to the next 25 years.

The hospital was built in 1905 as King Edward VII Sanatorium, Midhurst, although it is actually on Lord's Common in the parish of Easebourne.¹ The architects were Adams, Holden & Pearson, with Percy Adams being appointed principal but Dr. Charles Holden doing most of the design² and the building is in the style of what Nicholas Pevsner describes as "gabled Free Tudor [with] artless classical motifs" and is "one of the best buildings of its date in the country".³

The main contractor was Messrs. Longleys of Crawley at a contract price for the superstructure of £96,000 for the hospital and of £9.950 for the Chapel.⁴

The main building is H-shaped and three storeys high with a central corridor connecting the two wings. The south wing, which is 53 bays long (200 m) is with all the wards facing south with balconies. The north wing contains the main entrance, administrative offices, dining hall, kitchen and staff quarters. An unusual building is the Chapel, which is L-shaped, with an octagonal chancel and two identical naves, at right angles to each other. The explanation is that one nave was for the men and one for the women. Subsequently this distinction was abandoned and the two naves became used separately for Anglicans and Catholics, possibly the only church in the country to be bi-denominational.

During the 18th and early 19th century, bricks in Sussex were traditionally burnt in up draught wood fired kilns. The method of stacking bricks in the kilns meant that the fly ash from the wood reacted at high temperature to produce grey headers.⁵ If brickwork is laid in English bond with alternate courses of headers and stretchers one gets an unpleasant stripey effect. The popularity of Flemish bond where the headers are distributed in a pattern can be attributed to this phenomenon. It is also interesting to note that occasionally, particularly in Lewes, walls were built in header bond with a completely grey façade.

The architect of the hospital had apparently seen the striped effect and liked the appearance of it. Although the external walls are (presumably) hollow and are built almost entirely in stretcher bond he has used two different types of bricks, one red and one grey, of unknown origin, and has perpetuated the stripey effect. The hospital is a large building and to break up the appearance of large areas of plain

walls he has used several patterns of brickwork, with sometime several different patterns on one elevation. These patterns are: 1. alternate courses of red and grey bricks, 2. one course of grey bricks with three courses of red bricks, 3. one course of alternating red and grey bricks alternating with one course of grey bricks, 4. alternating red and grey bricks in each course, 5. English bond with alternate red and grey courses, 6. Flemish bond with grey headers and red stretchers. The last two examples were not much used, presumably where solid walls were required. Subsequent extensions to the hospital, apart for the recent ones, have all perpetuated the brickwork patterns, not always with conspicuous success.

The hospital was closed in March 2006 and it is anticipated that demolition of some parts and conversion to residential accommodation will take place shortly.

References

1. S.W.Large, *King Edward VII Hospital, Midhurst, 1901-1986*, (1986), p. 1
2. op cit. p135
3. Ian Nairn and Nicholas Pevsner, *The Buildings of England, Sussex*, (1965) p. 251
4. Large, op.cit, p.6
5. R.W.Brunskill, *Brick Building in Britain*, (1990), p. 41



I A ON THE PORTSMOUTH AND ARUNDEL CANAL Chris Bryan

During the first few months of this year (2006), work continued at the bridge at Merston where the brick arch is now protected from water penetration by a buried plastic membrane. Digging uncovered a complete set of canal-side coping stones still in situ on the brick walls taking the towpath under the bridge. This has all been recorded and the area backfilled.

In the spring as the weather improved further bricklaying was carried out at the Stewart Bridge site at Barnham Court Farm. The south wall brickwork is now complete and three coping stones replaced on the brickwork. The owner, Mr Bill Forse, has had a visit by representatives

of a possible source of funding and would like details of further work and estimates. Computer models and drawings are now being created to show how the recovered cast iron pieces of the 1820 Hollinsworth Bridge could be made into a working swing bridge supported on the newly reinstated brickwork and coping stones.

Three SIAS members, Alan Green, Adge Roberts and Chris Bryan met one evening in July with Peter Jones of Yapton Parish Council at the site of Burndell brick arch bridge on the Portsmouth and Arundel Canal. Yapton village would like to restore the bridge as a feature of Industrial Heritage within the village. The brick arch of this bridge is still intact, but the parapet wall is missing entirely. The structure is completely overgrown and barely visible and borders onto a housing estate. The area is prone to vandalism so emphasis was placed on having a footpath moved first so the site could be fenced off before any clearance work was contemplated. The bridge features on our canal walk as an example of poor workmanship by the locally employed labour for the building of the canal, 1818 to 1823.

The offer of a flight in an aeroplane to study the route of the Portsmouth and Arundel Canal with the ground in drought conditions, was taken up by Chris Bryan and Adge Roberts. There are several sites, brick arch and swing bridge still not positively located from field walking. Flying in a Piper Warrior from Goodwood Airfield on a sunny evening in early August, the route of the canal was flown at 500 feet. Our pilot, John Gratton, obligingly flew in tight circles around the sites of most interest. The flight has provided a valuable record with over 100 photographs taken. Unexpectedly, the canal route showed up with remarkable accuracy at some locations under level cultivated fields.

A geophysical survey was carried out at the site of a former swing bridge at Tile Barn Farm, Barnham, on 20th August. This was the second survey, but this time using a smaller grid of 0.5 metre. Ian Allinson of Worthing Archaeology Society provided the equipment and our team of six spent the day moving the grid of string to ensure the accuracy of the survey. The owner, Richard Lonsdale has given permission for a dig at this site during the winter.

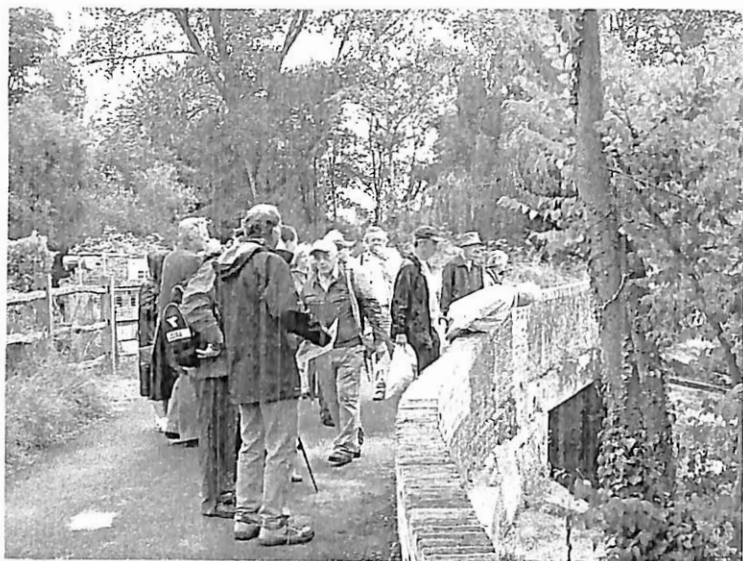


RAILWAYS, LOCKS AND MILLS OF BARCOMBE MILLS

Robin Jones

Introduction. The following report concentrates on the remains of the River Ouse Navigation and the railway during the SIAS visit, which took place in August, in addition to the afternoon visit to the Lavender Line. A report on the mill remains seen and their history is included in the October 2006 Sussex Mills Group Newsletter.

Eighteen members assembled in the car park at Barcombe Mills on Saturday 12th August for a guided walk led by Michael Green. The weather was cloudy and during the visit it rained on a number of occasions. Before we left at 10.30 a.m., maps and early photographs, protected in polythene folders, were given out for reference as we searched out evidence of the various buildings and locks of the River Ouse navigation. Additional photographs were also shown at selected stopping points to provide a better understanding of each site. After passing over Pikes Bridge, following the old Turnpike Road, we arrived at the site of the corn mill and Pikesbridge Lower Lock.



Members view Pikesbridge Lower Lock, with the site of the mill beyond



The List of Tolls sign seen on the wall (left), gave us the evidence we were on a turnpike road. Having seen the site of Barcombe Mill and Pikesbridge Lower Lock, we walked round to the rear of the mill site, where information about the railway sidings serving the mill, which left the Lewes to Uckfield Railway at Barcombe Mills Station, was provided. This line is now disused with some of the trackbed a public footpath. We then made our way back towards our starting point, except after passing the remains of the lower lock, walked along the side of the navigation to Pikesbridge Upper Lock where evidence of the side wall

of the lock chamber could be seen. These two locks and the Oil Mill Lock we would see later as well as Isfield Lock which some members went to see, formed part of the Upper Ouse Navigation, which was surveyed by William Jessop in 1787 with a view of extending the navigation right up to Slaugham. Construction work was slow and eventually the project was finally completed in 1812 with the river navigable to Upper Ryelands Bridge near Balcombe a distance of 22 miles and 19 locks above Lewes. Having inspected Pikesbridge Upper Lock, the third lock on the navigation, Hamsey between Lewes and Barcombe Mills being the first, we continued our walk over the Kissing Bridge past Barcombe Reservoir eventually reaching the site of Barcombe Oil Mill and the remains of Oil Mill Lock. Michael Green our leader expected us to walk much faster as on a number of occasions he asked those at the back to hurry up. As we shall see the full walk planned was never achieved. After viewing the Oil Mill Lock chamber we were shown photographs of the house beyond the lock, which was at one time a tea garden with tables and chairs on the lawn. Now it is a private house. Adjacent to the lock we saw the site of Barcombe Oil Mill and four discarded edge runner stones. Railway sidings were also laid to this mill. It was only a short walk to the Anchor Inn where we had a break for refreshments. The Inn is also noted for its boat hire facilities where one can have a leisurely trip on the River Ouse. The

plan was to continue walking for a further half an hour to Isfield Lock, but as it was now after 12 noon some members had lunch before returning to Barcombe Mills by way of the disused railway. However one or two members did venture on to Isfield Lock. I heard this from one of the volunteers at Polegate Windmill the next day as he is also involved in restoration work on the navigation on behalf of the Sussex Ouse Restoration Trust. The majority of the members having had refreshments at the Anchor Inn walked to the disused railway where it was noted that rails of the double track railway were still in situ within the tarmac at the level crossing. When we arrived at the site of Barcombe Mills Station, where modern buildings resembling the original station were seen, it was a short walk back to the car park.

We then made our way to the Lavender Line at Isfield Station. Here there was an opportunity to travel on the line in a brake van, which was hauled by the Planet 0-4-0 Diesel Mechanical Shunter (*right*), purchased in 2004. It was also possible to visit the shop, signal box, model railway, museum and Cinders buffet before we gathered for a guided tour of the engine shed led by John Padgham. Here we



saw many locomotives and carriages including Austin 1, an 0-6-0 Kitson Steam Locomotive, Sentinel No. 51 a rare 0-4-0 Steam Locomotive and a Thumper 3 Car Unit 205033.

This was an interesting day where remains of railways locks and mills were seen in the morning and the operation of a small preserved railway was experienced in the afternoon.

BARCOMBE MILLS BUTTON FACTORY

Ron Martin

Our visit to Barcombe Mills in August reminded me that some years ago I had investigated the factory and had interviewed the late Sid Moore who worked there before WW II. He later became the right hand man of our President, Sir Freddie Sowrey in restoring his vintage cars. This article is based mainly on Sid Moore's recollections.

The lease of the derelict factory was taken on in 1931 by an Italian family named Belotti for the manufacture of buttons. The raw material was palm nuts, *Phytelephas* sp from the Palmae family, which are native to tropical America. This is also known as 'vegetable ivory' and was used as a substitute for ivory in carvings, buttons and chess pieces.¹ Once exposed to the light it assumes the characteristic brown/yellow colour. The nuts were brought to the site by rail.

The nuts were initially put into a cage 1 m diameter in 5 cwt batches and rotated to remove the outer husks. The nuts were then cut into slices 3 mm thick using small circular saws rotating at about 1000 rpm with twelve operatives equipped with steel fingers stalls and goggles. The sliced nuts were then sorted on circular sieves suspended from the ceiling, graded for size and checked for quality. The shaping of buttons was done automatically by machines operated secretly by members of the family. Holing was carried out as a separate operation and the buttons were then dyed in copper vats c 1 m diameter, the heat being provided by a Cochrane steam boiler. The buttons were then polished in a wooden drum c 1.5 m diameter into which were tipped the buttons with a quantity in matchstick ends and polish. This operation was powered from a water driven turbine mounted on a vertical shaft, powering an electric generator. The machinery, apart for the polisher was driven through line shafting by a 50 hp Gardner gas engine with a coal-fired producer gas plant, similar to that seen by members at the Society's recent visit to Cobb's Mill (See SIAS Newsletter 131).

The buttons were supplied to many of the principal London tailors. The factory was burnt down in March, 1939 and subsequently demolished.

Reference

1. Naomi Rumball, Assistant Curator, Economic Botany Collection, Royal Botanic Gardens Kew, personal comments.



BRINGING INDUSTRIAL ARCHAEOLOGY TO A WIDER AUDIENCE

Robin Jones

A new 12 part series entitled '*Fred Dibnah's World of Steam, Steel and Stone*' was transmitted on BBC2 TV starting on Tuesday 11th July. The documentary series explored the history of Fred's favourite sites with comments from his family and friends. It was enlightening to hear, in the third programme of the series, how with Fred's interest in the Industrial Revolution he manages to explain our industrial past in an easily understandable way which has helped more people to recognise this significant period in British history. This was commented on by various people, including Glen Laws, Chief Executive of Ironbridge, Paul Jarman, Curator of Transport at Beamish and Colin Tyson, Editor of '*Old Glory*' magazine and '*Bluebell News*', the journal of the Bluebell Railway. In later programmes preservation of our industrial past was highlighted, and the Bluebell Railway with Fred at Horsted Keynes Station was featured when the importance of steam was covered. I felt the programme promoted industrial archaeology and industrial history in a way that reached out to a wider audience, which hopefully will make more people aware of our industrial past.

NEWS IN BRIEF

Robin Jones

In June I received an E mail from Ken Rimell, the News Editor of '*Vintage Spirit*' Magazine, a monthly periodical devoted to steam and vintage machinery. He was making enquiries about including an article on the Tangye Gas Engine at Cobb's Watermill, a photograph of which appeared on the front cover of the July Newsletter.

During the weekend of 7th & 8th October 2006, E-FAITH, the European Federation of Associations of Industrial and Technical Heritage organised its first European industrial and technical heritage contact weekend, where volunteers from different countries met to forge relations across borders. This event was held in Beringen, Belgium, a splendid industrial archaeological area associated with coalmining. The colliery is surrounded by a network of transport infrastructure and a large mining village, including houses of miners and engineers, schools, a church, meeting halls and a cinema.

POETRY CORNER

ODE TO INDUSTRIAL ARCHAEOLOGY

by Diana Durden

*Why do you stir me, ugly things?
Factories, chimneys, each one brings
Salute to man, a sense of pride
As towering, brick-built viaducts stride
Across the greenest countryside*

*Quarries scar the face of land
Lifting rock and chalk and sand
Inclined planes descend by rail
The trucks which on the water sail
An age in which canals prevail*

*Clicking, turning watermills
Wheels and sails upon the hills
Windmills up there, white and pretty
More attractive than the gritty
Smokey foundries in the city*

*Harbours, basins, cuts and docks
Flights and staircases and locks
Chambers lined with green and slime
Dank and mossy, wet with grime
Relics of a far-off time*

*These facets have no natural beauty
They smack of work, harsh times and duty
And yet, despite this I can say
They are attractive in their way
These artefacts we call "I A"!!*



'BRUNEL a Railtour of his achievements'

by Vic Mitchell (Great Railway Eras Series - Number 13)

This book, published by Middleton Press, follows the structure and layout for which the publishers are famous. A map is included of the lines covered and the majority of the photographs and illustrations are of great antiquity.

Great care has been taken to include only photographs and illustrations that have not been previously included in any of the Middleton Press publications and a cross reference system and index of all relevant albums will readily enable the reader to locate other photographs, illustrations and references.

To Brunel followers, this is a worthy addition, and for Middleton Press aficionados, (of which there are, I believe, many) there is no danger of duplication of material.

The album is priced at £14.95, and is obtainable from bookshops or direct from the Publishers, Middleton Press at Midhurst.



This Newsletter is published quarterly in January, April, July and October and contributions for the next Newsletter should be sent to the Editor by the 4th December 2006.

Opinions expressed are those of the respective authors and do not necessarily reflect the views of the Society unless specifically stated.

Subscribing to the Sussex Industrial Archaeology Society gives automatic membership to the Sussex Mills Group.

The Sussex Mills Group also produces a Newsletter that is sent to members with this Newsletter.

All photographs are by Robin F. Jones, unless otherwise stated.

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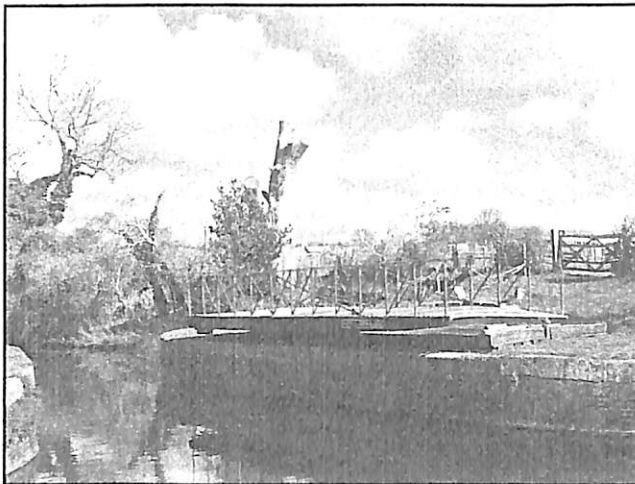
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POYNTZ BRIDGE, PAST AND PRESENT



Poyntz Bridge in its original position at Hunston, the junction of the Portsmouth & Arundel Canal and the Chichester Canal, during a SIAS visit on Saturday 19th July 1975, with John Haselfoot, the then General Secretary of the Society.



Poyntz Bridge photographed on 2nd March 2006, now fully restored, in its current position on the Chichester Canal at the point where Padwick Bridge was originally located. The Bridge was open during the Heritage Weekend on 9th & 10th September 2006, when the pivot bearing was demonstrated.