



Sussex Industrial Archaeology Society Newsletter

Number 148

October 2010



Demolition in progress on the former printing works in St John's Street, Chichester

Newsletter 148

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Front cover

Demolition in progress on the former printing works in St John's Street, Chichester, in September 2010. In this view, taken from the adjacent St John's Chapel, the triple-ridged Bridgewater roofing tiles can clearly be seen. The main building, originally open on the far side, started life as a timber-drying shed. See the article on Bridgewater Tiles, page 20. (*Alan Green*)

Editorial

Welcome to *Newsletter* 148, We will reach the momentous Number 150 in two issues time, I make no apologies for asking for some extra special material for that number, Your Committee have agreed that I may have a few extra pages for the mountain of articles and pictures I am sure you will be sending me, as is usual, some reflections please, but I hope some forward looking ones too - Crystal Balls? Looking back, according to a piece in *Newsletter* No. 3 there were four 'Circulars' issued in January, April, August & October 1973, before the start of the current series in January 1974. Despite interrogating various long term members and visiting various libraries, I have been unable to track copies of any of these. It would be

good to be able to add them to the archives and the website. Please let me know if you have any of these elusive *Circulars*, so that copies may be added to the archives. The last issue included a report on some of my research into the use of the Devil's Dyke in 1918. I now have a copy of the large file, maps and plans from the National Archives, this answers many of the questions but of course poses some more. There are the foundations of a building to find - in the brambles! and some measuring and plotting to do. It is planned to have an article in *SIH*, but I will be including some more details in the next *Newsletter*.

Forthcoming SIAS Events

Malcolm Dawes

Saturday 30th October, 7.30pm. *History of Rye Bay.*

Illustrated talk by SIAS Secretary Ron Martin. The talk will cover the area from Pett Level to New Romney looking at how the area has changed over the centuries since the setting up of the Cinque Ports. The history of Rye Harbour will also be examined with illustrations of the wide variety of industries that were once based in the harbour area. West Blatchington Mill Barn, Holmes Avenue, Hove.

Saturday 20th November, at 2.00pm. *AGM followed by illustrated talk on Industries of Mills Worldwide by Peter Hill.*

Please note the revised start time.

Please look out for the notice of the AGM that is included in this *Newsletter*.

After the formal meeting, Peter will be using his extensive collection of photographs of wind and water mills taken during his travels in the UK, Europe and Canada. He will be looking at the wide variety of alternative uses of mills and how they are used for different industrial processes.

West Blatchington Mill Barn, Holmes Avenue, Hove.

Saturday 29th January, 7.30pm. *Sussex Railway Stations in the 1960s - Images from the John Hoare collection.* John was the author of the ground breaking publication *Sussex Railway Architecture*. Presented by SIAS Chairman John Blackwell. West Blatchington Mill Barn, Holmes Avenue, Hove.

(Note: At 2.00pm approx, at the same venue there is a Brighton Circle talk. The subject is at present undecided but is likely to continue the theme of photographs of the LB&SCR. Further details in the January Newsletter. SIAS members are welcome to attend).

Date for your diary:

Sunday 24th October, Autumn meeting of the Sussex Mills Group – see the Mills Group Newsletter for details.

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

Wednesday 20th October, 7.45pm. *Between Brighton and Burgess Hill.* Local transport from 1962. Sussex Transport Interest Group talk by Brian Bennett. £2. London Road Station, Brighton. 01273 512839.

Thursday 21st October, 8.00pm. *Bombs at Teatime – a film show.* Short films from the British Film Institute Archive portraying domestic life in the 1940s. Wivelsfield Historical Society event. Visitors £2.50. Wivelsfield Village Hall. 01444 451568.

Friday 22nd - Sunday 24th October. *Giants of Steam weekend.* Running of larger locomotives. Free Vintage Bus Service on the Sunday. Bluebell Railway. 01825 720800. www.bluebell-railway.co.uk.

Monday 25th October, 7.30pm. *Heading east – a journey from Brighton along the Coastway East.* Railway Correspondence and Travel Society talk by SIAS Chairman John Blackwell. London Road Station, Shaftesbury Place, Brighton. www.rcts.org.uk.

Saturday 6th November. *Hastings Blue Belle Excursion train.* Running of Hastings Diesel Unit over Imberhorne Viaduct at the Bluebell Railway. Special bus travel from Hastings available. Bluebell Railway. 01825 720800. www.bluebell-railway.co.uk.

Sunday 7th November. *London to Brighton veteran car run*

Monday 8th November, 7.30pm. *Britain's Railways in black and white.* Southern Electric Group, Sussex Branch presentation by Andrew Marshall. £2 visitors. Deall Room, Southwick Community Centre, Southwick. www.southernelectric.org.uk.

Friday 12th November, 8.00pm. *The Bluebell Railway.*

Current and future activities of the preservation society. Burgess Hill Local History Society talk by Mike Mason. £2. Cyprus Hall, Cyprus Road, Burgess Hill. <http://burgesshillmuseum.co.uk>.

Wednesday 17th November, 7.45pm. *Photographs from Gordon Dinnage's Collection.* Sussex Transport Interest Group presentation. £2. London Road Station, Shaftesbury Place, Brighton. 01273 512839.

Wednesday 17th November, 8.00pm. *Military History Rye Bay.* Sussex Military History Society talk by SIAS Secretary Ron Martin. £3 non-members. Function Room, The Royal Oak, Station Street, Lewes. www.sussexmilitary.org.uk.

Thursday 18th November, 7.30pm. *Rampion, the proposed off shore wind farm between Worthing and Newhaven.*

Hove Civic Society presentation by Chris Tomlinson of power company EON.
Courtlands Hotel, The Drive, Hove. £3 non-members. www.hovecivicsociety.org.

Friday 19th November, 7.00pm. *The Lewes Avalanche.*

A Polegate and Willingdon Local History Society presentation by David Goldsmith.
St Johns Church Hall, High Street, Polegate. £2 visitors. 01323 485971.

Sunday 21st November. *Vintage Bus Day at the Bluebell Railway.*

Vintage bus services from Brighton, Hayward's Heath, Crawley, East Grinstead.
Bluebell Railway. 01825 720800. www.bluebell-railway.co.uk.

Wednesday 24th November, 7.30pm. *History of Shoreham Airport.*

Volk's Electric Railway Association talk by John Roundtree. £2 visitors.
West Blatchington Mill Barn, Holmes Avenue, Hove. www.volkselectricrailway.co.uk.

Thursday 25th November, 7.45pm. *Early transport.*

Eastbourne Historic Vehicle Club talk by Nick Kelly. Red Lion Public House,
Stone Cross near Pevensey. 01323 843202.

Saturday 27th November, 2.30pm. *Brighton and Hove's Basement – rocks and soils of the city.*

Brighton and Hove Archaeological Society Local History talk by Geoff Mead.
United Reformed Church Hall, 102 Blatchington Rd, Hove. www.brightonarch.org.uk

Saturday 4th December. *Steam train excursion from Haywards Heath to Bath.*

Photographic opportunities in Sussex. www.railwaytouring.co.uk.

18th, 19th, 23rd and 24th December. *Victorian Christmas Special Trains.*

Booking essential. Bluebell Railway. 01825 720800.

Tuesday 21st December. *Steam train excursion from London Victoria to Hastings.*

Photographic opportunities in Sussex. www.railwaytouring.co.uk.

Thursday 20th January, 2.30pm. *The British Engineerium.*

Mike Holland, the driving force behind the redevelopment, will talk about current
progress and plans for the future. Hove Civic Society event.

Courtlands Hotel, The Drive, Hove. £3 non-members. www.hovecivicsociety.org.

Wednesday 26th January, 7.30pm. *Restoration of vintage carriages at the Bluebell.*

Volk's Electric Railway Association illustrated talk by Richard Salmon. £2 visitors.
West Blatchington Mill Barn, Holmes Avenue, Hove. www.volkselectricrailway.co.uk.

Do please check details before travelling.

*The details of these meetings and events organised by other groups
are only included as a guide and as a service to members:
inclusion here is not intended to be seen as an endorsement.*

IA and Me

Diana Durden

From an early age, when on holiday in Sussex and Kent, I always visited windmills with my parents, my mother having a particular liking for them. I remember climbing to the top of Cross-in-Hand windmill in 1960 and finding a ginger cat on the top floor!

In addition to this, I've always liked the look of bridges, tunnels, viaducts and especially inclined planes; I have walked down the Hay, at Blist's Hill, Ironbridge and this was a very special experience. My husband, Alan and his family have always enjoyed canal trips and I have joined them on many happy holidays on the Grand Union (we always called it the 'Grand Onion'!), the Stratford on Avon and Oxford canals, and had a memorable crossing on the Pontcysyllte Aqueduct.

In the early 70s I joined Ray Riley's WEA class in Worthing and realised, for the first time, that all these things collectively had a name – industrial archaeology! I met there members of SIAS and joined the society, enjoying visits to many places to I would never have been on my own. I joined the Committee in the early '90s and have been making the tea ever since! The Committee had a special trip to the gypsum mines at Mountfield – we all donned hard hats and white suits and, apart from it being a very informative visit, I've rarely laughed so much in all my life!

I'm also interested in "20th Century IA" (or now, 21st IA), encompassing such areas as workers' housing, shops, cinemas, Art Deco factories, etc., and was horrified when the Firestone building was demolished, just hours ahead of being listed. It was a privilege to hear the late Ken Hudson deliver the keynote lecture on 20th century IA at SERIAC in London some years ago.

Having Amberley Museum on the "doorstep" has also been a bonus, with its many exhibits on IA.

In the early 90s, I was asked to give a talk at one of our members' evenings and I knew what my subject must be. Despite an inauspicious beginning with swimming (thereby hangs a tale!) I have always had an aesthetic interest in pools and lidos – artefacts of the leisure industry - and my talk therefore largely included these. I then went on to record all that remained of such pools and lidos in Sussex and from time to time give talks locally, entitled "Making a Splash" – in some quarters I'm known as the Lido Lady!

I've made many friends through the society and so I'm grateful to IA for that as well.

Some years ago I wrote a little ditty on IA and it was published in the SIAS Newsletter January 1992 and then in the Uckfield and District Preservation Society newsletter three months later. I humbly offer it here as it sums up all my interests in verse!

ODE TO INDUSTRIAL ARCHAEOLOGY

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,
Smoking 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, hard times and duty
And yet, despite this I can say
They are attractive in their way,
These artefacts we call "I.A." !

Diana Durden

Are the madarins in Brighton ashamed of their heritage?



Many of the road signs in the town have had the 'County Borough of Brighton' painted over - Why? (*Martin Snow*)

AIA Annual Conference in Falmouth

Ron Martin

The Annual Conference of the Association for Industrial Archaeology was held this year in September in the Tremough Campus of the University of Falmouth. This is built in the grounds of an 18th century house.

Cornwall is an interesting county – now largely thought of as a holiday destination. It is the only mainland county in England and Wales which is almost entirely surrounded by sea. The hinterland is rather boring, punctuated by numerous engine houses and chimney shafts of former mines, but the coastline is magnificent with towering granite cliffs everywhere. Although the main industry is now tourism, it was not always so. From pre-historic times Cornwall was a source of wealth from metalliferous mining, firstly for tin; by the 15th century the tin industry had become well established and later for copper. We visited the Poldark mine where the surface has been largely turned into a tourist attraction, but the underground workings were well worth a visit.

The other major industry in Cornwall is the extraction of china clay or kaolin which is derived from the decomposition of feldspar from granite. This was first recognised in 1746 and the traditional way of extracting the clay was to wash out the kaolin bearing material from the face with water jets, the resultant slurry being treated to separate out the quartz and unaltered feldspar and the clay was then dried. We visited the Little John Mine, an area of some 550 acres (see picture page 9), where this process was still in operation. The more recent method of winning the clay is by dry mining, which reduces the water consumption by two thirds. The clay is reduced with jaw crushers, bucket wheel sand classifiers and hydrocyclones. We visited the works at Meledor where this process is in operation. Formerly the waste material from the processes was deposited in sky-tips which created the characteristic landscape known as the Cornish Alps. Most of these have now been eliminated, the pits filled and the area landscaped. China clay was formerly used for the manufacture of pottery but in the 19th century it was discovered that the introduction of clay into the manufacture of paper whitened the paper.

To export the tin, copper and china clay there developed a network of railways and ports. We visited the ports of Par, Fowey, Hayle and Charlestown. Par Dock has now silted up and the material from there is transferred to Fowey Dock by road on the track of a previous railway which goes through a $\frac{3}{4}$ mile long tunnel. At Hayle in order to keep the harbour open there is a large pond, some 33 acres in extent, in which water was stored and used to sluice the channel clear. Charlestown is now no longer used commercially, although there were three square rigged sailing ships there which are being used for filming. The tunnel through which wagons of

clay were brought from the drier could be seen by means of which they could tip their loads straight into the waiting ships.

A visit to the Porthcurno Telegraph Station was also interesting, as where the first submarine cable was brought ashore in 1870.

Altogether this was a most interesting conference organised by the Trevithick Society and well worth the long journey to the west.

Next year's conference is even further west and is being held in Cork in Eire in August, 2011. Details will be available early next year.



Little John China Clay pit. (*Ron Martin*)

AIA Publications Award

Ron Martin

The Association for Industrial Archaeology have awarded the Society an Award for Sussex *Industrial History Issue No. 40*.

The award was presented by Professor Angus Buchanan, the AIA President to Ron Martin representing the Society at the recent Conference.

The editor; Brian Austen, the type setter; Alan Durden, the printers; Custard Print and all contributors are all congratulated.

A picture of the presentation to Ron is on the back page.

Society Visit to Winchelsea and Rye Harbour on 21st August

Ron Martin

Winchelsea is an interesting place as it was built as new town when Old Winchelsea was swept away the sea in 1280. It had been built on a shingle spit some 3 miles from its new site and became a very important Cinque Port in the 13th century. Edward I immediately set about rebuilding the town on higher ground, laid out on a grid pattern, which can still be seen today. It had a harbour and when it was not supplying ships and men for the king's wars it



One of Winchelsea's vaulted cellars, still being used to store wine. The blocked steps went to the property above - an unusual feature for Winchelsea. (*Martin Snow*)

carried on a considerable trade in commodities such as wine. This was stored in the many underground cellars and we were able to visit two of these. They were entered directly from the street and had domestic accommodation over. There was some discussion as to the use these were put to as most of the trade was in transhipment, there was no necessity for storage of large quantities of wine away from the harbour area. It was concluded that these were probably built as wine tasting places where orders could be placed.

After lunch we met at Rye harbour and walked round this interesting and surprisingly industrial area. It was created in the early 19th century when Rye itself was becoming silted up and ships were unable to get further up the river. A large concrete works was built, which supplied concrete blocks for building the Admiralty Pier in Dover. There were also a limekiln, brick and tile works, chemical works and an oil refinery. A branch off the Hastings to Rye railway was created in 1854, which was a single track freight line and its bed can still be traced in part. There was also a network of narrow gauge tramways to feed the various works. On the opposite side of the River Rother could be seen the Golf Course Station of the Rye and Camber Tramway built by Col., Stevens in 1896. Although intended for the use of golfers it was also the means by which inhabitants of Rye Harbour could get from Rye by using a ferry across the river.

We were very well served by our two guides, Richard Commotto in the morning and Dr. Barry Yates in the afternoon who both enhanced our visits with their considerable knowledge.

2010 Heritage Open Days in Brighton

Martin Snow

The annual HODs weekend - extended to the Thursday and Friday (and Tuesday!) - was held on September 9th to 14th. This year I was in a position to attend a number of the events - 35 in all - not all strictly IA, but there was a good representation. Here is a taster of some.

Starting off at the new gas powered electricity generating station at Shoreham Harbour. This recent replacement for the coal powered 1950s 'B' station has a steel chimney apparently built higher than strictly needed to match the old one in response to public pressure! It is run continuously on 'base load' as it is (at present) cheaper to run as such, using enough gas to supply Wales each day. They declined to comment on the observation that the UK will run out of its indigenous gas from the North Sea in about 2020. Am I alone in thinking it is unwise to use gas to generate electricity? It was interesting to learn about the site, despite there only being three 'boxes' to see, built around the actual workings for sound and safety reasons.

A walk around the Extra-Mural cemetery in Lewes Road fascinating mausoleums and tombs, a glimpse into the 'great and good' of Brightons past, including the massive granite tomb of John Urpeth Raistrick See picture page 24.

The 14 catacombs in St Nicholas Gardens in Dyke road were another event, one being open to view - empty! - apparently the coffins were lowered in from above, A violinist played pieces of funeral music, once a major part of funerals.

A visit to England's Ornamental Plastering Ltd. Portslade gave a hands-on opportunity to cast a replica plaster moulding, all most informative. This long established company is the leading local experts in restoration using traditional methods and materials. This includes repairing Bungaroosh walls. On the following pages is their leaflet on the subject, based on their experience working to restore them.

A tour of the Dome complex included a peek at the entrance to the tunnel to the Pavilion - closed, thanks to the ever zealous 'elf' n safety jobsworths. The existence of a tunnel to Mrs Fitzherberts house in the Old Steine (now YMCA) was mentioned as a fact, I had understood this was an urban myth. These sort of throw away 'facts' were encountered on several occasions and leave the serious heritage student unsure about much of the rest that is offered in that particular talk.

It is good to see that the Pepper Pot in Queens Park Road is to have money spent on it to stabilise the structure while a long term use is yet to be found.

The - not previously opened to the public - Museum of Ancient Crafts in Woodingdean made an interesting visit, how can so many old tools and machinery be fitted into a room the size of a garage and still be entered to view? A worthwhile visit for those

interested in the history of tools. Look out for another opportunity to visit Sunday morning saw an early start to visit the Clayton Tunnel Cottage, another worthwhile visit, but a shame that errors crept into the talk - the large train shed at Brighton was not designed by Mocatta, it was a much later addition.

As ever for the Turnpike fans, the remaining Ashcombe Toll House near Kingston on the A27 was open. There was once a pair on either side of the Brighton to Lewes road. It is interesting looking back in books and magazines that many people were unaware of its use, a fate shared by many structures today. (See the article and detailed drawing in *Sussex Industrial History* No. 13 1983)

Two walks were lead by our member Geoff Mead, the one at the Level covering its long term use for recreation, the development of the southern part as a childrens playground and the planned restoration of some of the 1920s features as well as continuing changes to provide for the ongoing modern craze for skate boarding.

The final event was a taster of the Anglo-Jewish Heritage Trail, this highlighted the history of the buildings and people from this minority who contributed so much to local life, including Mocatta who designed the Brighton Station building.

Look out for next years events, there are others venues across Sussex and UK.

Further information:-

www.englandsornamental.co.uk

www.pepperpot.info

www.friendsofthelevel.info

www.jtrails.org.uk/trails/brighton-and-hove

Living with bungaroush

Bungaroush (often known as bungaroosh) was made of readily available materials such as pebbles from the beach, flints, brick ends and sweepings from the building site, layered with a gravel, sea sand and lime mortar. The result is a type of reinforced concrete.

History (Yet to be finished)

Lime rubble concrete has been around for thousands of years. You only need to look at how the Romans used it to form the massive domed roof of the Pantheon — more than 2,000 years old and still the largest unsupported lime concrete structure in the world. After the Norman invasion in 1066, their early castles were built of shuttered, unlayered flint and rubble B/roosh so proven method, however when less lime is used with little clay dust to save costs, - - - - .

So

Bungaroosh was an easy and proven way to create a wall that was strong, durable, cheap and designed to be rendered. In Brighton and Hove, it was mainly used for the

party and rear walls of terraced houses, although it is also found in infill panels and occasionally as garden walls.

How it was used

A pair of boards was placed between two brick piers and braced into position. About two to three inches of a lime, sand and gravel mixture was shovelled in, then flint, brick and pebbles were layered on top to a depth of approximately three to four inches. When this had partially set and dried, the boards were moved up and the process continued, with layers of rubble sandwiched between layers of mortar. Spaces were left for windows and doors — these had brickwork returns and reveals to add structural strength. Chimneys and flues were also made of brick.

Problems

Collapse!

Bungaroush walls can be friable and collapse. The reasons range from poor quality materials or low lime content, such as salty pebbles and sand from the beach, to damp getting behind the rendered face of the wall and eroding the bungaroosh. Badly carried-out repairs — for example, using incorrect materials such as modern cements, can also lead to collapse.

The builder

Should remove the render from the problem area before attempting a repair. Collect together the lost and fallen rubble, gravel, pebbles, bricks and flints. The small gravel products should be mixed with either putty or hydraulic lime — hydraulic is better — in a ratio of 2:1, with two parts of sand and recovered gravel to one part lime. Using a plank wedged against the hole or area of collapse, soak the area and rebuild using the remixed/recovered product in layers, in the same way as it was built originally. Allow the bungaroosh to set for at least two weeks before re-rendering.

Splits and cracks

The building settling usually causes these. The answer is to remove the render and wrap the affected area with mechanically fixed, stainless steel, expanded metal lath. Then you can re-render.

Sunken render — spalling or face failure

Render becomes hollow when the face of the bungaroush fails — the render comes away. You can usually stabilise the area and halt erosion by spraying it with limewater — the water taken from the top of a bucket of putty lime that has settled for 24 hours. Then a grit/sand/lime mortar in a 2:1 ratio should be worked wet on to the face of the wall to achieve a stable, renderable face. Keep it damp for the first few days with an atomiser, then leave to dry for a week before re-rendering.

Health and safety note

Unless you are professional trained to make and use lime plaster, keep away from it! Do not eat or drink lime, do not get lime in your eyes and keep it off your skin. If you

are watching what your builder is doing, wear protective clothing and goggles. If lime splashes onto your bare skin or you swallow any, use copious amounts of clean drinking water to reduce its effects and seek medical help.

Do

.. Ensure that you identify and deal with anything causing damp or water ingress — look out for dead pigeons in your hoppers, vertical cracking down the back of your rain pipe, badly maintained or badly fixed gutters, vertical or horizontal cracking to the render, rising damp caused by soil levels being raised, ventilation blockage or leaks in internal plumbing.

.. Call in an expert surveyor and/or company to confirm the cause of any problems and recommend a course of action. It can be a problem finding someone but persist — there are experts out there and they can help.

Don't

.. Assume that you can work a DIY repair by slapping cement-based sticky plasters onto the wall. It's a bit like gluing a tin plate onto a sponge — the sponge stays wet and rots, while the tin plate goes rusty and falls off. Find the cause of the problem and deal with that first, then call in the experts.

.. Believe anyone who tells you bungaroush cannot be repaired. It can.

.. Ignore it. Your house walls could become unstable.

Reproduced with permission of England's Ornamental Plastering Ltd

Donation from Inland Waterways Association (IWA)

Adge Roberts

On Sunday 29th August I was planning to support Linda Wilkinson (chairman of the Chichester Canal Trust and SIAS member) at the Beale Park IWA National Festival and Boat Show. (on the Thames at Pangbourne) However Linda was manning the Chichester Canal Trust stand on her own, so was unable to do it herself. A couple of days before hand she warned me that I might be called on to be presented with a cheque for £300 by the Solent and Arun branch of the IWA and to be prepared for a photo shoot presentation (top hat and tails ?)

The grant, which is intended to be used to bolster the funds for the re-decking of Poyntz bridge, has been in the offing for a while and it was good news to be told I would collect it at the show. Thanks to Linda for her influence that is responsible for this financial support.

In the event, the chairman of the branch, Mike Laishley appeared at our stand, wrote the cheque, handed it to me and then, (after many thanks from my self) walked away.

A picture of Adge holding the cheque and standing on Poyntz Bridge with the decking visible (minus top hat and tails - shame), is on page 24.

Canal Group Events

Adge Roberts

The last two Canal Group events for 2010 were held during the Heritage Open Days weekend in September.

Canal Walk

On Saturday 11th, we met at Barnham Court Farm (in the face of a wet weather forecast) to walk along the route of the Portsmouth and Arundel Navigation to Ford on the river Arun.

Some 14 participants turned up and we set off in dry weather. At Yapton we were joined by another six walkers who due to advertising errors by both English Heritage and the Bognor Observer, were in the wrong place at the wrong time but chased us along the canal in cars to catch us up. After arriving at the end of the canal at the River Arun, with all walkers expressing their thanks and interest in the engineering remains that they had seen, and the information imparted, we returned to Ford church car park (where we had left return cars for Canal Group members). At this point it finally rained on us. Almost perfect timing.

In spite of the enthusiasm of the walkers we took just £27.50 in donations.

Poyntz Bridge Open Day

The following day we met at 8.30am at the Poyntz bridge site for the open day. We set up the gazebo and display boards and filled them with photos of the canal's history and of the Poyntz bridge history. We also had a table of sales goods for the Canal Trust. To comply with new regulations from the High School (on whose playing field we hold our display) we roped off the site from the rest of the field and put up notices barring dogs and exit across the field.

We opened at 10.00am with a small queue already beginning to grow across the canal on the towpath.

We had a busy day with an estimated number of visitors upwards of 150 calling at the site. We did not have to open the bridge to the canal very often as the scheduled boat trips were cancelled due to engine failure. The charter boat *Richmond* passed by twice and we did one extra demonstration opening for the public. The weather was superb the company was also good, most visitors being actually interested and we possibly made a couple of useful contacts. Generally a successful day. However we took just £25.34 in donations.

The Canal Group always welcome volunteers on our working parties

Most Saturdays and occasionally mid-week

Contact Adge Roberts on 01903 721762

100 years of Shoreham Airport

John Blackwell

In May 1910, an ex-pupil of Lancing College, Harold Piffard, began testing a single seat 40 h.p. biplane that he had designed and built on a flat area south of the College. The landlord of the nearby 'Sussex Pad' bet a crate of champagne that it would not fly the length of the field but on the 10th July the bet was won and Piffard became the first (?) man to fly over Sussex. By 1911 a recognised aerodrome existed with a row of ten wooden hangars built against the railway embankment on the south east corner of the existing airport. Britain's first air cargo flight was from Shoreham to Brunswick Lawns at Hove. This was made on 4th July 1911 when GEC hired Horatio Blaber to fly a box of 'Osram' lamps for use at an electrical engineer's conference. Following WWI, when the air field had been requisitioned for training purposes, it reverted to cattle grazing until 1925, when F.G Miles started the Gnat Aero Co. in a field south of the railway line. In 1926 the company moved to a site north of the railway and west of New Salts Farm Road becoming Southern Aircraft Ltd. This was known as 'Lees Barn Airfield' and continued operating until the new airport opened in the mid '30s.

In 1930 the municipal authorities of Brighton, Hove and Worthing formed a joint committee to establish a municipal airport for the three towns. The site chosen was the original field which was purchased from F. G Miles for £10,000 in 1933. Plans were drawn up by S. H. Tiltman the architect for Southern Aircraft Ltd, (who were interested in leasing the building) and who at that time was practising at Middle Street Brighton. In 1934 a tender was accepted for the terminal building, main hangar, (which survives) six lock up hangars (not erected) and other building work from James Bodle Ltd, of Brighton. Work commenced immediately on the main building which was steel framed on a reinforced concrete raft with the external walls fourteen inches thick built of Belgium bricks rendered and coated with 'Snowcem'. The whole was in the then fashionable art-deco style with the ground floor having a central booking hall with custom and luggage facilities to the right and a bar and lounge to the left. Upstairs were the club facilities of the South Coast Flying Club. It should be remembered that flying at that time was very much a social event. The ground floor is largely unaltered and a gem of its period, Grade 2 listed, and a must to visit. Work was completed in September 1935 and the airport was officially opened in June 1936 with an air display. Companies such as Channel Air Ferries, Railway Air Services and Jersey Airways soon started using the airport and in 1937, 1,429 regular service flights and 6,308 passengers were recorded. Destinations served were Bournemouth, Bristol, Cardiff, Liverpool, Manchester, Portsmouth, Ryde, Croydon, Jersey, Le Touquet, and Deauville. The London Brighton and South Coast Railway re-opened Bungalow Town Halt in July 1936; it had originally opened in 1910 to serve the occupants of the railway carriage bodies that were being made into homes on Shoreham Beach. It had closed when the west coastway line was

electrified at the beginning of 1933. Re-named Shoreham Airport it finally closed in July 1940 although there had been suggestions that it could be re-sited opposite the terminal building entrance. The wooden platforms were just to the east of the road tunnel.

With the outbreak of war in September 1939 the airport was again requisitioned and became the terminal for flights to Britain from France, Belgium, Denmark and Holland until the invasion of these countries, Croydon being closed to their airlines for security reasons (it became a fighter station for the defence of the capital). Shoreham's main role throughout the war was Air Sea Rescue. With the rapid development of aircraft design during the war and the conversion of bombers into civil aircraft meant that most had outgrown the runway lengths at Shoreham and short term leases to defray operating costs were made firstly to F. G. Miles from 1952 to 1960 and then to the Beagle Aircraft Company until that company's liquidation in 1970. A tarmac runway was completed in 1981 but the airport has had a chequered career with many false dawns since.

Little appears to be known of the career of the airport's architect Stavers Hessel Tiltman (1888-1968) who before moving to Middle Street was working from his home in Hove. M. H. (Magnus Herman) Volk, the eldest son of Magnus Volk (of Volk's Railway fame), who from an early age had a keen interest in aviation and was also a director of Southern Aircraft Ltd, had collaborated on the technical design of Shoreham. He "joined" Tiltman in 1936 and was presumably involved in the plans submitted for Leeds-Bradford Joint and Belfast Harbour airports. Whether the plans were realised I do not know. At Leeds one wing of a terminal building was opened in 1936 but destroyed by fire in 1965. Belfast opened in 1938 and had a short life as a civilian airport before being used for military purposes (it was close to Short Bros. works) until the 1970s. It re-opened for civilian purposes in 1983 and was renamed George Best Belfast City Airport in 2006. By 1949 a partnership with Frank F. Howard had been established under the name Tiltman Howard. Tiltman had been the local architect for the Portsmouth and Brighton United Breweries since the 1930s and the partnership continued the association with public houses and were responsible for the construction of the Royal Coach at Shoreham (1958) and the Lewes Road Inn (Franklin Arms c1964).

Natural Gas at Heathfield

Natural gas was found while drilling for water and used to light the station. This medal was struck in 1902 to celebrate the coronation of King Edward VII and Queen Alexandra.

Sussex County Magazine



Book Reviews

By John Blackwell

More on Eastbourne's Water Supply

Our member, local and military historian Peter Longstaff-Tyrrell sent me a copy of one of his books *'Lost Villages of East Sussex'* in which the previously untold history of Holywell where there were lime kilns and a small fishing community is related. With the construction of the water pumping station in 1896 there could no longer be human habitation, quarrying or lime burning to ensure the purity of the water drawn from the Holywell springs. It is also stated that contamination of the Bedfordwell springs "was caused by over pumping that had drawn sea water under the marshes".

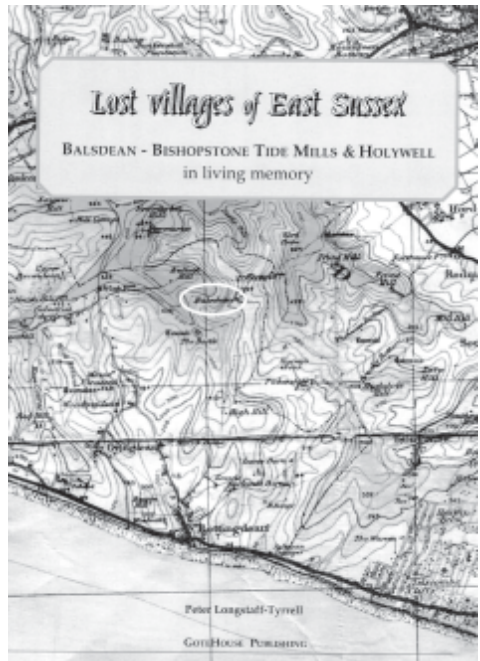
The book is primarily the story of the hamlet of Balsdean a mile to the north of Rottingdean which is only easily accessed by footpaths. It led an untroubled but isolated existence for centuries, when in May 1942 along with vast tracts of the South Downs it was commandeered for military training, which led to the destruction of the remaining buildings. Coincidentally a state of the art pumping station was built nearby in 1936 with electrically driven borehole pumps. One of these can now be seen at Brede Pumping Station.

The third of the villages is Tidemills, between Newhaven and Seaford, where Peter brings up to date his article in *Sussex Industrial History* No 26 and includes notes on the WWI RNAS

~~As part of the book Newhaven~~ researched and profusely illustrated with many archive views.

Available to members at a special reduced price of £7.00 including post and packing, I would recommend it for your bookshelf.

Obtainable from Peter Longstaff-Tyrrell, 8 Chiltern Court, Albert Road, Polegate, BN26 6BS.



A History of the Eastbourne Aviation Company (EAC) 1911-1924

by Lou McMahon and Michael Partridge

Originally published in 2000 by the Eastbourne Local History Society A5 hardback 176pp. The Company was formed in 1911 by F. B. Fowler (1883-1967) a skilled motor engineer who in late 1911, before teaching himself to fly, purchased five Bleriot type aircraft from an aviation school that was being wound up in Hampshire. Fowler soon found his first airfield site, some 50 acres of marshy ground between the gas works and St Anthony's Hill at Eastbourne. Here he established his flying school where pilots took an average of eight hours flying to qualify.

In 1913 the company amalgamated with Frank Hucks Waterplanes', a seaplane pleasure flight company which operated from the beach to the west of the pier as well as from other local resorts. A base to house the seaplanes was built on the Crumbles opposite Lottbridge Drive. The company had obtained the services of the talented Swiss engineer, Emil Grassler and started building aircraft to his designs, including a monoplane which was the first to employ inter-connected ailerons instead of the more usual wing warping thus eliminating twisting strains.

Following the outbreak of war in August 1914 the airfield was taken over by the Royal Navy Air Service (RNAS) as a training station with Fowler continuing to run the operation in a civilian capacity until early 1915. The seaplane base remained in EAC's hands and over 200 aircraft were built for government contracts. Later in 1915 Fowler was one of the first men to fly a land plane from the deck of a naval vessel; *HMS Vindex*, a converted Isle of Man passenger steamer. After the War the company entered into a frantic quest for revenue earning activities, flying tuition, pleasure flights, aerial photography, construction of a light car and charabancs on ex-army chassis together with coach work, painting and motor repairs. But by the end of 1922 the company was in receivership, probably, as the authors' speculate, because none of the pre-war designs proved saleable, the wartime contracts were not adequately profitable and possibly after the war four planes that crashed were uninsured. Unsurprisingly Fowler did not enter into aviation management again but appears to have retired and entered into country hotel management. The last physical remnant of EAC which remains in situ is the RNAS guard house at the top of Leeds Avenue converted into a bungalow. One of the airfield's timber buildings was sold to the parish of Mayfield and is now the church of the Good Shepherd at Five Ashes.

The book is meticulously researched and copiously illustrated and for those interested in early aircraft and aviators, with a local slant, this book is highly recommended. It can be obtained from Peter Longstaff Tyrrell 8 Chiltern Court, Albert Road, Polegate, BN26 6BS. at a bargain price of £5.00 plus £2.00 P&P

Bridgwater Tiles in Sussex?

Alan H J Green

Visitors to the Society's stand at SERIAC are always drawn to the display of Ron Martin's superb drawings of interesting Sussex industrial buildings. One of the recent buildings Ron surveyed and recorded (on which I had the privilege of being his chainman) was the former Moore & Tillyer printing works in St John's Street, Chichester, which was scheduled to be demolished. Moore & Tillyer's premises consisted of a splendidly ramshackle suite of buildings, parts of which dated back to 1811, that had metamorphosed from a builder's yard into a printing works via a timber yard and sawmill. The conversion to a printing works occurred in 1908 when it was acquired by Messrs Moore & Wingham, and it stayed as such until 2003 when Moore & Tillyer (as they had now become) relocated to Fernhurst and sold the site to a developer. Seven years later work has commenced to demolish the buildings prior to redevelopment.

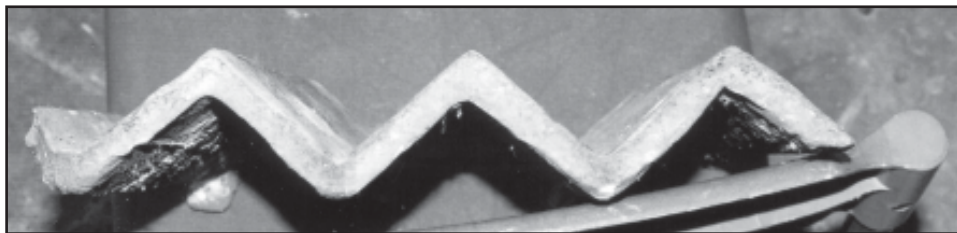
A prominent feature of the main building is its roof which is covered by triple-ridged tiles of a type rarely, if ever, seen in Sussex. Ron immediately recognised the form of these tiles and suspected that they came from Bridgwater in Somerset. Shortly afterwards I was shewing a party around St John's Chapel next door, when one member of the group, a builder, made the same observation. The demolition work has enabled the tiles to be examined closely and, proving Ron's theory, they duly bear a deeply-impressed back-stamp that reads:

**MAJOR BRIDGWATER
REGISTERED**

Bridgwater tiles

Bridgwater was once an important centre for the manufacture of bricks and tiles drawing on the abundant local supplies of both clay and coal found in the Somerset Levels. Production commenced at the end of the seventeenth century and at least eleven individual manufacturers are recorded, who between them once employed half the male population of the town. The products of the various Bridgwater brick and tile works were exported all over the world¹ Production of tiles at Bridgwater ceased in 1965, but the last remaining kiln now forms the centrepiece of the Somerset Brick and Tile Museum and has been declared a Scheduled Ancient Monument.

A wide range of distinctive roofing tiles was produced at Bridgwater and the ones used in Chichester are of a form known as *triple delta*. These were being made in the 1860s and may have been exhibited at the 1851 Great Exhibition.² An angular variation on the pantile theme, the tiles have three 90° ridges and interlock with their neighbours. The back-stamp indicates that they were made at the works of H. J. & C. Major.³



An end-on view of a Bridgwater triple delta tile.

The tiles measure 133” (330mm) wide by 153” (380mm) long and are ½” (12mm) thick. The ridges are 2 1/8” (54mm) high and at a pitch of 3 3/4” (95mm)

Bridgwater in Sussex

So how, and why, did these unusual tiles come to be used in Chichester where supplies of the locally-made product were – or should have been - readily available without the transport costs? Derek Tillyer, a retired director of the company, recalls that when the roof was stripped in the early 1960s the tiles were reinstated over new roofing felt so they had obviously been there some time. Were they a job lot perhaps? I suspect we will never know but it would be interesting to hear whether other members have seen these tiles elsewhere in the county. Reclaimed Bridgwater tiles are highly prized in their home county and a search on Google reveals several architectural salvage yards who deal in them.

Envoi

Ron and I drafted a preliminary report on the history and the recording of the Moore & Tillyer buildings, but it is awaiting confirmation of certain details that may, in due course, be revealed by the demolition.⁴ We were fortunate that the developer, Mark Penfold, kindly granted us unrestricted access to the buildings in 2005 to carry out the survey, and also allowed a visit to be made by SIAS members during a Chichester tour I organised that year. Mark Penfold has now kindly donated four of the Bridgwater tiles to SIAS and they will be displayed in the brick and tile exhibition at Amberley.

¹ The history page of the Bridgwater Town website carries a feature on the Bridgwater brick and tile industry written by Roger Evans.

² Thornton, Kay *Roof Tiles – Bridgwater, demise of, The Salvo Guide 2000.*

³ Bridgwater Town website op cit

⁴ Martin, Ron and Green, Alan H. J., *Moore & Tillyer's former printing works, St John's Street, Chichester. Preliminary Report* SIAS November 2005.

Mystery Photo - What is it? Where is it?



Do you know your local IA - Brighton in this case ?

I only learnt of this relic in the past few months, it can be found on Google Streetview - an extremely useful tool for the armchair researcher.

No prizes - answers on a postcard! or email to editor. (*Martin Snow*)

It is surprising just what is still out there to be seen, we may often walk past obscure remnants of our industrial past and don't know they are there, or what they are.

Do you have such a challenging object or building that can be featured, please send me an image or a suggestion that I could get captured for a future newsletter.

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Published quarterly in January, April, July and October.

Contributions for the next Newsletter should be sent to the Editor by the 11th December 2010.

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.

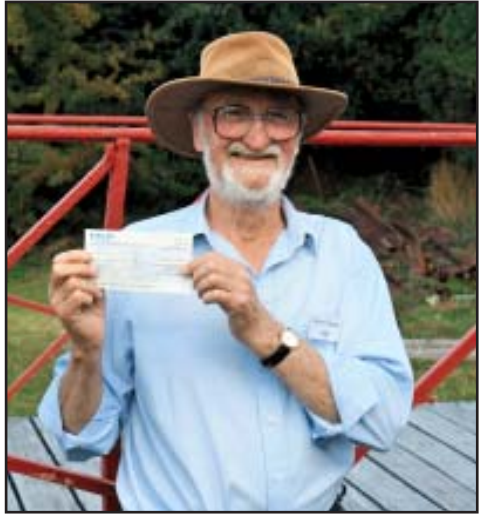
The Sussex Mills Group also produces a Newsletter that is sent to members with this Newsletter.

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Ron Martin receiving the award for SIH No. 40 at the AIA Conference 2010



Edge Roberts holding the grant cheque from the IAW towards re-decking on Poyntz Bridge



Tomb of John Urpeth Raistrick in Brighton Extra-mural cemetery. He was resident engineer, responsible for many early railway lines (*Martin Snow*)