



Sussex Industrial Archaeology Society Newsletter

Number 171

July 2016



No chance of using this as a mystery photo, the background is a bit of a giveaway.

However the subject is one of three shelters built in 1950 in a pre-war style and is the one that retains the original wall.

See the review inside of *Soviet Bus Stops* for the inspiration for using this image.

(Susan Kwiatkowska)

Newsletter 171

Contents

July 2016

Editorial	2
Forthcoming SIAS Events	3
Events from Other Societies	4
SERIAC 2016	8
‘Jafar’ comes to Plumpton Green	11
Concrete Roof Tiles	14
Hastings Pier Reborn	16
CITiZAN.....	18
Phoenix rises higher – further developments at Selsey Pavilion.....	19
Soviet Bus Stops	20
The Footpath along the Adur at Shoreham Airport - A Follow up	21
Mystery Photo and Update	22

Editorial

Welcome to *Newsletter 171*. It was most pleasing to receive a number of compliments on the last issue, as well as some information as requested, this is being followed up and will be featured in a future *Newsletter*.

As promised there is an article on the farce over the level crossing gates at Plumpton, this is by a resident and parts may be at variance with some members views, but it does present a position on why the ‘heritage’ viewpoint is not always uppermost in the eye of those in authority. (There may be some doubts on whether they have a mind?)

There is also a further newspaper report on the progress? of the new gates.

SERIAC 2016 has come and gone and your committee is busy planning for the 2017 meeting that we are hosting at Worthing, with the theme of 50 years of IA. 2017 is the 50th anniversary of the society (no doubt you will get tired of hearing about that fact, but it is something to be proud of) we were one of the earliest IA societies to be formed.

Reviewing a recent book *Soviet Bus Stops* prompted me to ask about our own shelters, read the review on page 21 and see the front cover, hopefully it will inspire members to note their local bus shelters and send in details. I’m sure we can come up with unusual / interesting ones too.

Hopefully we may actually see the sun in the remainder of summer and you get to see that IA site you have been promising to visit, if you do I would welcome a report and images.

Forthcoming SIAS Events

Malcolm Dawes

Saturday 24th September, 11.00 am *Stations, Stinkpipes and Sausages - some aspects of Chichester's Industrial Past*

A walk around Chichester with Alan Green which will end with a visit to the Grumpium Museum & Art Gallery (courtesy of the curator) which has a small railway collection, big on the LB&SCR, which is marking the 170th anniversary of the coming of the railway to Chichester.

Meet: Chichester station, upside at 11:00. In the event that Southern is providing a service by then, the 10:03 ex Brighton will get you to Chichester at 10:50.

Please register with Alan Green 01243 784915 or agreenzone@aol.com

Mobile number on the day (only) 07503 727047

The last of our 'summer' (?) visits :-

Thursday 6th October, 11.00 am *Visit to Chilworth Gunpowder site, Surrey*

Lead by Alan and Glynys Crocker, Surrey Industrial History Group

Chilworth is in Surrey, South-east of Guildford in the Tillingbourne Valley, it was a major site for the manufacture of gunpowder and explosives. We will meet and return for lunch at the Percy Arms, 75 Dorking Rd, Chilworth, Guildford, Surrey GU4 8NP After Lunch we will view the remaining parts of the site. Parking at the pub, please share cars where possible. Chilworth Railway Station is immediately adjacent (on the Redhill - Guildford Line).

Please advise Martin Snow of your intention to attend, details on inside cover. Mobile on the day 07836 675472

We start the Winter series of lectures

at West Blatchington Mill Barn, Holmes Avenue, Hove

Saturday 22nd October 7.30 pm *Shoreham Harbour Past, Present and Future*

A welcome return of local historian Trevor Povey with his new presentation.

Discover how a small gut in the shingle has become one of the busiest coastal ports in the country. How has it kept up with constantly changing demands in today's hectic commercial climate? Marvel at mans ingenuity in the constant fight against the forces of nature.

Advance Notice

AGM - Saturday 19th November at 2.00 pm Followed by *Syphons in Sussex*

David Jones recounts his apprenticeship days with the British Syphon Company and Schhh you know who! at Eastbourne

Please see the Mills Newsletter for Mills Group activities

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 email to malcolm.dawes@btinternet.com

Weekend 16th- 18th July. *Festival of Archaeology Weekend*

Exhibition about building technology of two of the Museum's houses, Longport Farmhouse and the house from Walderton Sussex.. Weald and Downland Open Air Museum. Singleton, Chichester. www.wealddown.co.uk

Wednesday 20th July, 7.45pm. *A nostalgic look at the railways in the 50s and 60s*

Sussex Transport Interest Group talk by Terry Cole. London Road Station, Brighton. 01273 512839

Saturday 23rd July. *Sussex Vintage Model Railway Collectors Annual Exhibition*

Knogle Hall, Knogle Road, Brighton.

Confirm details at www.sussex-transport.co.uk/svmrc

Sunday 24th July. *Classic Car Summer Show*

Classic motor vehicles and accessories from the 50s, 60s, 70s and 80s. Amberley Museum. 01798 831370. www.amberleymuseum.co.uk

Weekend 30th- 31st July. *Toy and Rail Collectors Fair*

Horsted Keynes Station, Bluebell Railway. 01825 720800.

www.bluebell-railway.co.uk

Sunday 31st July. *Worthing seafront bus rally* www.worthingbusrally.co.uk

Weekend 6th - 7th August. *Tinkers Park Rail Gala, Model Railway Show and Southdown Bus Event* at Hadlow Down. www.tinkerspark.com

Monday 8th August, 7.30 pm. *A whimsical view of Amberley's Narrow Gauge Railway*

Southern Electric Group talk by Geoff Boote. £3 non-members. Deall Room, Southwick Community Centre, Southwick. www.southernelectric.org.uk

Weekend 13th- 14th August. *Vintage Transport weekend*

Displays of historic classic and vintage transport including cars, steam road engines, commercial and agricultural vehicle at Horsted Keynes Station. Bluebell Railway. 01825 720800. www.bluebell-railway.co.uk

Wednesday 17th August, 7.45pm. *Frogs, Ears and Pull-offs*

The history of the development of overhead current collection for trams and trolleybuses. Sussex Transport Interest Group talk by Peter Williams. London Road Station, Brighton. 01273 512839

Thursday 18th August, 8.00pm. *Medieval Winchelsea - Fame And Fortune*

An account of the destruction of the original Winchelsea, which stood on a

shingle bank in Rye Bay, and its rebuilding under the direction of King Edward I. The reasons for Winchelsea's decline and later importance and influence will be reviewed. Wivelsfield Historical Society talk by Malcolm Pratt. Visitors £2.50. Wivelsfield Village Hall. 01444 451568

Weekend 20th - 21st August. *Vintage and Steam*

Steam engines on display and working around the museum grounds. Other displays include, commercial vehicles, military vehicles, working narrow gauge railway, model boats, classic cars and traditional vintage fairground. Weald and Downland Open Air Museum. Singleton, Chichester. www.wealddown.co.uk

Sunday 21st August. *Petrol Locos Day*

Working petrol locos including World War I Simplex and Wickham sets. Amberley Museum. 01798 831370. www.amberleymuseum.co.uk

Friday 26th- Monday 29th August. *Wood yard and charcoal burning*

For five days the traditional earth clamp will be built, tended and then dismantled on Bank Holiday Monday. Weald and Downland Open Air Museum. Singleton, Chichester. www.wealddown.co.uk

Weekend 27th- 29th August. *Hellingly Festival of Transport* www.ehvc.biz

Friday 2nd- Sunday 4th September. *Ale at Amberley Beer Festival*

Over 70 real ales, ciders and perries, many from Sussex and Kent. Hot food and visiting food stalls. There will be a stage with music at all sessions. Steam rollers, traction engines plus visit the Museum during the day. Booking highly recommended for the Friday and Saturday evenings. It is planned to run a dedicated bus service for the event – details can be obtained from the web site. Above details are provisional so check web site nearer the date. Amberley Museum. 01798 831370. www.AleatAmberley.co.uk or www.amberleymuseum.co.uk

Friday 9th September, 8.00pm. *The Great War: Burgess Hill in 1916*

How the war affected the local community. Continuation of previous talks. Burgess Hill Local History Society talk by Alan Seymour. Cyprus Hall, Cyprus Road, Burgess Hill. www.burgesshillmuseum.co.uk

Saturday 10th September. *Heritage Open Day walk along Wey and Arun Canal*

Visits to relics of the Wey and Arun Canal and Horsham and Guildford Railway, including three historic iron framed bridges. Walk lead by Alan Johnson, Technical Liason Officer of WACT.

Attendance will need to be notified to :

support@weyandarun.co.uk by 3rd September.

Meet at Sharmley Green Church car park at 2.15pm

Weekend 10th - 11th September. *Laughton Country Fair*

Laughton, East Sussex. www.heritagefield.co.uk

Sunday 11th September. *Historic Cycles Day*

Bicycles from 1800 to the present. Amberley Museum. 01798 831370.

www.amberleymuseum.co.uk

Monday 12th September, 7.30pm. *Worthing to Lancing and South Western Lines Part 2*

Southern Electric Group talks by Redmore Church and Peter Jones.

£3 non-members. Deall Room, Southwick Community Centre, Southwick.

www.southernelectric.org.uk

Wednesday 14th September, 7.30pm. *Affording the landed lifestyle*

How 18C landowners of western Sussex maintained their lifestyle. Chichester

Local History Society talk by Dr.Sue Berry. Non members £3. New Park Centre,

New Park Road, Chichester. 01243 784915

Thursday 15th September, 8.00pm. *Limeburners, Lords and Labourers*

The fascinating story of the chalk and lime industry that once dominated the Arun

Valley. Wivelsfield Historical Society talk by Richard Howell. Visitors £2.50.

Wivelsfield Village Hall. 01444 451568

Weekend 17th - 18th September. *Steam Engine weekend*

Working steam engines, large and small. Amberley Museum. 01798 831370.

www.amberleymuseum.co.uk

Weekend 17th - 18th September. *175th Anniversary of Haywards Heath Station*

Events around the town and at the Station. Bluebell Railway. 01825 720800.

www.bluebell-railway.co.uk

Sunday 18th September, 2.00pm. *Chichester Model Engineers, Steam on Sunday*

Open afternoon, miniature steam and diesel locomotives with rides all afternoon.

Blackberry lane, off Bognor Road, Chichester. www.cdsme.co.uk

Wednesday 21st September, 7.45pm. *A pre-grouping panorama*

Sussex Transport Interest Group talk by Roger Brasier. London Road Station,

Brighton. 01273 512839

Saturday 24th September. *Tinkers Park Open Day at Hadlow Down*

www.tinkerspark.com

Sunday 25th September. *Autumn Bus Show and Running day*

View and ride on a variety of historic buses. Amberley Museum. 01798 831370.

www.amberleymuseum.co.uk

Tuesday 27th September, 7.30pm. *Edwardian Durrington and Salvington*

Worthing Society talk by Jane Dore. Visitors £3. Worthing Library Lecture Theatre.

worthingsociety@yahoo.co.uk

Sunday 2nd October. *Classic Landrovers Day*

Amberley Museum. 01798 831370.

www.amberleymuseum.co.uk

Weekend of 8th- 9th October. *Austin Counties Car Rally*

Vehicles on show at Tenterden Station. Kent and East Sussex Railway.

www.kesr.org.uk

Weekend of 8th- 9th October. *Autumn Countryside Show*

Heavy horses, Vintage tractors, steam powered ploughing and threshing. Weald and Downland Open Air Museum. Singleton, Chichester. www.wealddown.co.uk

Sunday 9th October. *Autumn Historic Transport Gathering*

End of season gathering of vintage cars, motorcycles, commercial vehicles, steam engines , diesel and steam locomotives. Amberley Museum. 01798 831370. www.amberleymuseum.co.uk

Monday 10th October, 7.30 pm. *A selection of railway films from the 1960s*

Southern Electric Group presentation by Peter Winchester. £3 non-members. Deall Room, Southwick Community Centre, Southwick. www.southernelectric.org.uk

Wednesday 19th October, 7.45pm *Around the country, a retrospective tour of the bus industry*

Sussex Transport Interest Group talk by Gerald Mead. £2.50. London Road Station, Brighton. 01273 512839

Monday 24th October, 7.30pm. *The Brighton Main Line*

Railway Correspondence and Travel Society talk by John Blackwell. £2.50. Brighton Model Railway Club Room, London Road Station, Shaftesbury Place, Brighton. www.rcts.org.uk

Weekend of 28th - 30th October. *Giants of Steam weekend*

Bluebell Railway. 01825 720800. www.bluebell-railway.co.uk

Sunday 30th October. *London to Brighton veteran car run*

Information for members on Heritage Open Days in September

Many buildings are opened up to the public during September as part of the annual Heritage Open Days event.

Many of these buildings have an industrial archaeology interest.

Events outside of London run from 8th to 11th September.

Details from www.heritageopendays.org.uk.

Events in London are for the weekend of 17th - 18th September.

www.londonopenhouse.org

AIA conference 2016

9th - 14th September This year's conference will be held in Telford at the University of Wolverhampton. www.industrial-archaeology.org

Do please always 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.

SERIAC 2016 - Surrey

John Blackwell

This year's conference was hosted by Surrey Industrial History Group at Holy Cross Preparatory School Kingston Upon Thames. The conference was attended by 150 delegates at a venue which had excellent facilities. The first speaker was SIAS member Dr. Geoffrey Mead with a presentation entitled *Southern History: A Different Perspective*, the basis being that instead of the traditional approach to IA by date or type of industry there are alternatives including by geographical and geological features, by the impact of migrants on particular industries, the silk, brewing, arms (cannon production) and glass were examples. These and others were elucidated by Geoffrey and two examples caught my interest. Going/Gone Industries, illustrated by blue stone boulder collections from beaches in Sussex for use in the Midlands pottery industry, Copperas (a form of iron sulphate) used as a dye fixative in the textile industry (Copperas Gap being the old name for south Portslade), horse and petrol-electric buses have long gone although trams have made a resurgence. Animal, Vegetable and Mineral industries, leather, Sussex trugs, and brickmaking were among examples. The usual erudite and entertaining presentation for which Dr. Mead is well known gave the conference a flying start. *Iron Industry in the Eighteenth Century Weald* with Jeremy Hodgkinson a long standing stalwart of the Wealden Iron Research Group. From the fifteenth century until the mid sixteenth iron bar was the chief product of the Weald and its 50 furnaces and forges supplied almost the whole country but by the 1660s bar production had migrated elsewhere. The Weald was the only area for iron cannon casting which had started in 1540 but demand increased during the Dutch Wars (1652-1784) and the naval change from bronze to iron cannon. Three new furnaces at Pippingford (Hartfield), Heathfield and Lamberhurst were built in the 1690's with larger vertical casting pits with removable platforms for different lengths of gun. During the Seven Years War (1750-1763) 80% of the guns were produced in the Weald. The railings and gates, weighing a total of 200 tons, for St Pauls Cathedral were cast at Lamberhurst in 1710 by Samuel Gott, these were an early and sophisticated casting with screw threads to fix the sections together illustrating the expertise of the furnace operatives. (A small part of the original railings stand beside the War Memorial Hall in the Broadway at Lamberhurst). Decorative firebacks are another example of the Wealden iron masters skill. However coke, not charcoal, and steam instead of the reliance on ponds heralded the birth of the Industrial Revolution far away from the south-east, with the last Wealden furnace at Ashburnham closing in 1813. *Papermaking – History and Development* with Phil Crockett past Chairman of the British Association of Paper Historians. Papermaking developed in China using bamboo fibres soaked in water and then boiled. Into the solution was dipped a

frame to form a sheet, a pile of individual sheets was then pressed to remove water and dried on heated walls. The technique spread to Japan by 610, west to Cairo by 1035 and to Hertford England in 1488. Cloth fibres had long replaced bamboo and water powered stampers beat the mixture for 24 hours to form a pulp. In 1798 N. L. Robert of France invented a machine for making wallpaper whereby the pulp was tossed on to a wire mesh. This was improved by Fourdrinier in 1807 where paper 48 inches wide was produced at a rate of 4 metres per minute, pressed between rollers and steam dried - the birth of modern papermaking. By the 1850s the supply of rags was insufficient and use of new materials was developed principally wood pulp which contains lignin, causing discolouration of paper when exposed to light. Chemical processes were developed in the 1880's to remove it and wood pulp became the norm for mass produced paper. Contraction and mechanisation have eliminated (the five in Sussex) or substantially reduced the smaller mills and other than near Canterbury there are none in our area.

Following lunch we welcomed regular contributor geologist SIHG member Paul Sowan with another of his fascinating and informative studies of a small area of Surrey entitled *What Happened at Merstham? A Square Mile of IA in East Surrey*. The area was a supplier of minerals to London, including stone from Merstham, Fullers Earth from Nutfield, silver (glass) sand from Reigate. To reach the Capital it was necessary to cross the North Downs principally by Merstham Gap. This was the route of the Croydon Merstham & Godstone Iron Railway which opened in 1805 but never reached Godstone and terminated at Merstham quarry. An 1810 proposal was to extend to Portsmouth as a canal. The CM&GIR (actually a plateway) was not a financial success and was bought out by the London and Brighton Railway Co for use as part of their line. An interesting observatory (tower) remains, constructed in brick (usually they were of timber on a brick base) at the top of which were surveying instruments to ensure an accurate line for the tunnel below and to site the vertical mining shafts which on completion became tunnel ventilation shafts. Merstham tunnel had problems as the water table rose several feet higher than the bottom of the railway tunnel, the solution being to build a smaller lower level tunnel to collect and clear away the water.

Ten Green Bottles - the demise of the gasholder? Malcolm Tucker GLIAS. London first public supply commenced in 1813 using a small water sealed gas holder consisting of two parts the tank below ground, containing water and the lift containing the gas. As demand increased external guide frames were built where tees, later rollers, fixed to the outer rim at the top of the lift(s) ran within channels on the vertical framing and more than one (telescopic) lift became common. Initially cast iron tripods in a buttress arrangement formed the columns as at Fulham (1830). These developed into lattice tripods using wrought rather

than cast iron with horizontal bracing between columns as No 2 holder at Bethnal Green. The now demolished gas holder in Church Road Hove designed by John Paddon, Engineer and Manager of the Brighton & Hove Gas Co., in 1876 was of this construction. Cutlers Patent of 1889 uses a lattice of vertical guides and helical girders forming a series of equilateral triangles – a truly geodesic cylinder as No. 1 holder at Hornsey. William Gadd's patent of 1888 did away with the external framing with the lifts supported by spiral guiding rails fixed to the lifts. The spiral guide rails engaged with rollers (two above and two below the rail) on the edge of the now above ground tank in such a manner that the lift moved up and down in a screw-like fashion. The earliest waterless gas holders erected in the 1920's were of the German MAN design, based on a rigid cylindrical structure in which the gas is stored beneath a large piston suitably weighted with ballast blocks. Gas holder No. 7 at Battersea constructed between 1930 and 1932 (demolished 2014) being 190 feet high. Finally Malcolm updated progress on the re-use of the iconic triplet holder originally at St. Pancras and lamented the small number of listed holders.

The final presentation was by SERIAC bursary holder and BIAG member Sheila Viner entitled *Researching Berkshire's Watermills and their Industries*. The earliest records are of a mill at old Windsor where the Vikings allegedly replaced three vertical Saxon wheels with one horizontal wheel. The uses of the mills in the County were varied, corn at Bray, Paper at Taplow and Cookham, silk and later roller produced flour at Twyford, and an estate sawmill at Bearwood. A whistle stop tour covered several interesting mills including:- Temple Mill at Marlow (now demolished) was in possession of the Knights Templar who had three mills there in the fourteenth century, these were later converted for making brass and copper utensils and rebuilt for copper smelting. Sonning Mill, the last working mill on the Thames, features in the 1963 Sunblest bread promotional film 'Grist to the Mill' available on youtube. It has been converted to a music/theatre venue. Sheila stated her research was still a work in progress, the results of which will be deposited with the Mills Archive at Reading. As a member of the audience remarked her research was exactly what the SERIAC bursary was intended for and congratulated Sheila not only her work but the bonus of an excellent presentation.

Well done to Surrey next year it is our turn!

SIH

Peter Holtham holds a small stock of *Sussex Industrial History* volumes for enquiries and new members, however certain numbers are out of stock.

If any member no longer requires any volume(s), please would they consider contacting Peter to complete his holdings,
Peter's details are under treasurer on inside cover.

‘Jafar’ comes to Plumpton Green?

(a personal perspective of the ‘pantomime’ of Plumpton’s level crossing gates)

David H Millum ACIfA

“New gates for old” was the offer from Network Rail to the people of Plumpton and just like Jafar in the story Aladdin their motives were rightly questioned. But were they really as villainous as some suggested or just a bit incompetent, naive and absolutely appalling at public relations?

Unusually for this journal this article is not written by an industrial specialist or even a local historian but by a field archaeologist who just happens to be a long-term resident of Plumpton Green. It is not a deeply researched article but a personal perspective that may be somewhat at odds with the opinion held by the majority of the readers of this journal about the removal of the Grade II listed Victorian crossing gates from Plumpton Green station. The article comes about due to a chance meeting with your editor who on commiserating about the loss of the gates was astounded to find that the author was not only content with the new barriers but had written in support of the required permission for their installation. I think I had better try to explain how I came to this pass!

The rail authorities had been trying to replace the gates for over a decade, originally with a half barrier which was rightly resisted as being totally inadequate for a crossing within a village environment. The more recent application dealt with this concern by suggesting the installation of a double barrier across the whole width of Plumpton Lane. There was still some concern about the lack of a barrier across the tracks when the road crossing was open although this is the case in virtually every other mainline crossing in the country. There was also a small but vociferous minority, including some Parish Councilors, who wanted the Victorian gates retained no matter how impractical this might be. I waited in vain for their call to reinstate the LB&SCR semaphore signals. The vast majority of the residents were fairly unconcerned as long as the procedure happened speedily and did not result in undue inconvenience.

Network Rail’s position was that the mechanism of the gates was now so worn as to be potentially unsafe and that professional opinion suggested that rising barriers rather than swing gates were safer on a modern rail system, especially as reconfiguration of the signaling system meant that the crossing would now be operated at distance rather than from the adjacent Grade II listed signal box. Network rail duly applied for listed building consent in June 2015 and received support from the District Council’s Planning Department who recommended approval on the basis of safe operation outweighing the loss of heritage. The gates were to be offered to a preservation society in East Kent who had long been seeking a set to install on their track. The gates were therefore not due to be destroyed but relocated to a



The Old Gates
(David Millum)

more practical and possibly pertinent location; we don't have that many Victorian trains running through Plumpton!

Network rail naively expected their application to be dealt with promptly and in line with the officer's recommendations and therefore scheduled and indeed commenced the works on the 25th September 2015, prior to receiving formal permission, closing the road for an expected 2-3 weeks. Lobbying by the Parish Council for a refusal of the application and I believe a certain exception taken at Network Rail's bullish



The new Barriers
(David Millum)

attitude to the planning process and by inference to the authority of the District Councilors led to a summary refusal of permission. This decision totally ignored the loss of revenue to local businesses and inconvenience this would cause the local community they purported to represent being now split in two.

NR's threat to keep the crossing closed permanently due to safety issues understandably led to a much more acrimonious argument than was necessary. The outcome was that NR would go to appeal, a process that could take at least six months or very likely much longer and the road would stay closed in the interim as they maintained that the original gates could not now safely be operated under the revised signaling arrangements.

At a public meeting a lot of hot air was expelled but one important voice was heard for I believe the first and only time; the voice of the railwayman. A representative explained that from the railway workers point of view a barrier that crosses the track, by far and away, provides the most dangerous scenario for a potentially catastrophic incident. This was not a NR manager trotting out their trite 'health and safety' excuse but an experienced railwayman giving us his genuine fears about the use of Victorian technology on a 21st century rail network. It was after this meeting and with the prospect of months of road closure and an expensive legal battle between a tax-funded company and rates-funded local authority that I decide that pragmatism should in this case outweigh nostalgia, and after some soul searching I wrote in support of the renewed application.

A representative from the Bluebell Railway interviewed at about this time, probably in the hope of further controversy, pointed out sagely the difference in speed between trains on a modern mainline and those on a preservation railway concluding that modern mainlines need modern equipment and technology. You don't want a man with a red flag on a motorway would be my take on the situation.

Permission was given on the 13th January 2016 by the same district councilors who had refused exactly the same application in the autumn. In the interim it was the local residents and businesses who had suffered. I hold the District Council equally culpable in this debacle as Network Rail, as at least NR and the Parish Council, whilst both obdurate, were consistent.

The new barriers were installed relatively quickly on receiving official permission and the road was reopened in early February to much local relief. Plumpton and Plumpton Green are once again a whole community and I for one don't really miss our old 'cherished' swing gates nearly as much as I thought I would. Like part time open courses at Sussex University the gates were a forlorn cause, but just let them try and touch our signal box, booking hall or footbridge!

Concrete Roof Tiles

Ron Martin

It is not known when concrete roof tiles were first made in Britain, although it is generally considered to be post WWI. To start with the designs were based in clay products. Plain tiles, pantiles, single and double Roman tiles were the most common patterns used. Post WWII one very common pattern was the “Redland 49” manufactured in 1949 to satisfy the market post war to repair air raid damage. However, the origins of concrete roof tiles do go back much further. In Germany a young man called Adolph Kroher had come across, near the village of Staudach in Southern Bavaria, a pit which was the source of natural rapid hardening cement.¹ In order to exploit this material he decided to make roofing tiles of various patterns but the one he was most well known for is his No.6, the diamond pattern tile. The first ones were made in 1844 and they were used quite extensively in southern Germany but the largest contract was for the Tauern Railway in Austria where all the railway buildings were covered with Kroher’s diamond-pattern tiles², this was won as a result of his being awarded the Diploma of Merit at the Vienna Exhibition of 1873.³ The Kroher family ceased to manufacture concrete tiles in 1929.

At Haseldorf in Holstein at the border with Denmark, a Dane, Jörgen Peter Jørgensen was asked to go to Haseldorf to carry out some building work and subsequently stayed in Germany. It is not known whether he made tiles but his second factory at Quickborn was later sold to Paul Rademacher and who definitely did make diamond-pattern tiles in 1901.⁴

Another manufacturer who also made them was Hartwig Hüser who took out a patent for them in 1878 using Portland cement and sand.⁵ His factory was still making them post WWII but no longer. Another manufacturer was Ludwig Nicol working for Christopher Reising and Sons of Munich and in 1899 he patented a machine for the manufacture of diamond-pattern tiles.⁶ It is also believed that the main building at the Auschwitz Concentration Camp also used these tiles.

A machine for making diamond-pattern tiles was brought to England in 1895⁷ but by whom is not stated.

At the Amberley Museum and Heritage Centre the office building and a small one just west of the De Witt Kilns are covered with diamond-pattern concrete tiles. There is also a machine for their manufacture. It has not been possible to ascertain where the machine came from but the visual appearance of the tiles and the machine for making them at Amberley is so similar to the ones illustrated in the book that it seems highly likely that the machine was obtained from Germany. It seems highly unlikely that Pepper who owned the Amberley chalk pits in the late 19th. century would have conceived the idea of making these tiles bearing in mind that he had no prior experience of this product, although it is known that he was always interested in new products.

The book described and illustrates tiles on two locations in England where diamond-pattern tiles can be seen⁸, one on a school in Minehead (described as built in 1898) and one on a service station in Caterham both being made on German machines.⁹ The writer of this article has also found several examples in Sussex and one on the Isle of Wight.

References

1. Charles Dobson, *The History of the Concrete Roofing Tile*.(1959), p.7
2. Ibid p.12
3. Ibid p.10
4. Ibid p.44
5. Ibid p.46
6. Ibid p.52
7. Ibid p.52
8. Ibid pp.47 and 48
9. Ibid p.52



Loose concrete tiles at Amberley Museum
(Claire Seymour)



From the cover of the book ¹

Diamond Concrete
Tiles on a building at
Amberley Museum
(Claire Seymour)



Hastings Pier Reborn

Robin Jones

In May 2016 a brand new chapter in the history of Hastings Pier occurred when it was opened following an almost complete rebuild above the decking after a devastating fire destroyed 95% of the pier in October 2010.

Hastings Pier was designed by Eugenius Birch and work started in 1869 when the first pile was screwed into the sea bed. The pier opened on the first statutory Bank Holiday on Monday 5th August 1872. The majority of seaside piers up to that time were mainly wooden structures over the sea with landing stages at the end providing facilities for embarking passengers on steamers, and toll booths at the shoreward end. Hastings Pier was unusual in that it had an Oriental Pavilion built at the pier head accommodating 2000 people at the time of building whereas on other piers the buildings were added over time. Over the years more buildings were constructed on Hasting Pier including a replacement theatre in 1922 as the Oriental Pavilion was destroyed by fire on 15th July 1917. A new pavilion was built at the shore end in 1926, and during the early 1930's the shore end pavilion received a new frontage described as 'Art Deco'. In the 1960's the pier was one of the most important venues on the touring circuit for pop and rock groups playing host to Jimi Hendrix, The Who and the Banshees. The pier was damaged by storms in 1990 and closed to the public between 1999 and 2002. It reopened briefly but was finally closed in August 2008.

On 4th October 2010 the Hastings Pier & White Rock Trust formed the Hastings Pier Charity as the new owners of the pier and pledged they would bring the structure into the 21st century by designing a new pier for the people. A structural survey was carried out and it was estimated that £14.2 million would be required to refurbish the structure and replace the decking on the cast iron Victorian-era substructure which was salvageable. The design on the pier would be an open space, creating an urban park for different activities, which would change during the year.

When I visited Hastings Pier on Tuesday 17th May, I found at the entrance clean toilets in a temporary unit with a restaurant on the east side of the entrance, the only surviving building from the original pier which was used as retail units. This served hot and cold food, incorporated a bar and at the sea end provided access to a fish and chip counter. Outside in the centre of the area near the entrance was a number of fairground rides including a carousel with organ playing, hoopla, children's transport roundabout and a chairoplane. There were also a number of retail outlets in buildings resembling beach huts either side of the pier including units selling handicraft and ice cream as well as tarot reading facilities. Half way



along the pier decking there is what was described as a Visitor Centre, but it was basically a large wooden structure with a café on the top and, although closed at the time, underneath there was a meeting room with a lecture taking place as well as another room towards the sea with equipment in which could have been a fitness centre. The café on the top of this structure was serving a smaller menu than that provided at the restaurant, but seating was all in the open.

There was also a series of informative aluminium display boards around the railings of the pier. Two types were provided, one series giving the history of different periods of Hastings Pier and another series providing details of what visitors are likely to see from the pier. Two examples of the former was the Oriental Pavilion and Speedboats and Steamers, while of the latter The Pier, Boats and Birds were three examples.

As mentioned earlier the open space on the pier allows for all round year entertainment, and in May and possibly other times of the year there was Open Air Cinema with the films shown being *Pride and Prejudice* and *Dirty Dancing* presented by The Luna Cinema with Kino Digital.

Then in August Zippo's Circus is coming for most of the month.



CITiZAN – an England wide community archaeology project

Lara Band - CITiZAN Archaeologist for Training

Wind, waves and winter storms wreak havoc on England's coastal and estuarine heritage, leaving sites and features at risk of damage and destruction. CITiZAN, the Coastal and Intertidal Zone Archaeological Network is a response to this threat.

With three years of funding from the Heritage Lottery Fund, with support from National Trust, the Crown Estate and Historic England we have until 2018 to achieve our goals: to preserve coastal and intertidal heritage by record, to make these records easily accessible and to promote volunteer led recording and monitoring of at risk sites.

We've compiled a baseline dataset of coastal and estuarine archaeology from Historic England's National Record of the Historic Environment, National Trust records and other sources. Accessible via the interactive map on our website, the dataset has over 80,000 records, from prehistoric salt making sites to Cold War installations. Sign up as a CITiZAN surveyor and you'll be able to edit and update existing records and add new sites to this national record.

Themed months provide national focus for the project. May, *Ships and Shipping*, saw the South East team and volunteers recording vessels at the Barge Graveyard, Maldon, Essex and the remains of SS Oushla and UB121 at Birling Gap. In June, *Defence*, the South East team and volunteers recorded the Grade II listed anti-tank cylinders at Pegwell Bay, Kent. In July we join the Council for British Archaeology's *Festival of Archaeology* and will be in Norfolk. August's theme is *Coastal Industries, Working Lives* which covers extractive and manufacturing industries, agriculture, transport, tourism and more. This year the South East team will be in Suffolk recording the remains of post medieval jetties along the Stour. Our colleagues in the South West have previously recorded brick kilns on Brownsea Island; in the North they'll be recording Beadnall Lime Kilns in Northumberland. For September, *Lost Landscapes*, the South East focus is the prehistoric submerged Forest at Pett Level.

Visit www.citizen.org.uk to explore the map, to sign up as a surveyor and to have a look at the free training weekends, workshops, walks and talks we're offering. For more information contact us at citizen@mola.org.uk.

We hope to see you on the foreshore soon!

Phoenix rises higher – further developments at Selsey Pavilion

Alan H J Green

Last year, in Newsletter 168, I reported on the rebirth of the Selsey Pavilion and a highly entertaining theatrical performance that Joe Whicher and I attended there on one of the few fine summer's evenings that 2015 had to offer.

Opened in 1913 as *Selsey Hall*, the theatre-cum-cinema was soon renamed *The Pavilion*, but closed its doors in 1964 leaving the town bereft of a place of entertainment. The building was then used as a packing factory, a storage facility and latterly has lain empty and neglected. It was bought by Jeff Alan who, with the assistance of the artist Prof Pamela Howard, is restoring it as a multi-purpose centre for the arts.

Much has happened since our visit last August. Then the whole place was a building site and we had to pass through the foyer inside a tunnel of plastic sheeting, but all that has now been swept away and in its place is a bar, coffee shop and seating area. This has reused the original mahogany counters and the whole effect is most stylish and welcoming. The hoardings on the north side of the building have come down revealing a newly inserted shop front proclaiming the arrival of *Chaplin's Coffee House*.

Beyond the foyer the auditorium is still somewhat basic, but has been tidied up and there is now a rudimentary stage across the east end which enabled this performance to be triumphed as being the first to take place on the site of the original stage. A few cinema seats have been installed but most of the seating was still on rows of loose dining chairs.

This year's performance, given by Arts Dream Selsey, was a new play by Gillian Plowman entitled *Laurel and Hardy* telling the story of the comic duo via a play within a play. The three characters (two male, one female) are struggling actors living in a *ménage à trois* in a scruffy London flat where all the action takes place. The three are trying to earn a crust with an act impersonating Laurel and Hardy and their female stooge, and it is in their rehearsals for the act that we are told of the life story of the famous comedians. In the background however the *ménage* is slowly unravelling. As last year this was a superb performance given to a packed and delighted audience.

The programme for *Laurel and Hardy* gave details of the next stage of restoration which includes bringing the balcony back into use and stabilising the walls of the auditorium, followed by installation of a permanent, full-height stage and cinema seating. It is going to be a long (and expensive) haul but, judging from the standard achieved in the foyer, the end result will be well worth the wait. The size of the audiences suggests that it will be much valued by the populace.

Please see the back cover for images.

Soviet Bus Stops

by Christopher Herwig - ISBN 978-0-9931911-0-7

Observations - Martin Snow

There is an award in the book publishing industry for the oddest titled book of the year, the *Bookseller/Diagram Prize*. This has been running since 1978 (winner : *Proceedings of the Second International Workshop on Nude Mice*) and has seen IA titles within it's winners, including in 1994, *Highlights in the History of Concrete*, a book I already had on my shelves - due to the connection with Amberley. What does that say about my book collecting? I have since added more from the list.

Some past winners: the best seller *How to Shit in the Woods: An Environmentally Sound Approach to a Lost Art* won in 1989, *Greek Rural Postmen and Their Cancellation Numbers* in 1996. And *Reusing Old Graves: A Report on Popular British Attitudes* won in 1995. For more information on this award do a search online, wikipedia has a full list of winners, or look at www.thebookseller.com

When I checked for the latest winner (2015 - *Too Naked For the Nazis* - about Wilson Keppel and Betty?), I found that this book was fourth in the public vote.

I had to buy it!

Author Christopher Herwig travelled across the former soviet states photographing these statements of individuality in a very regimented society - too small to have a central edict on their design? They slipped under the bar and seem to have been tolerated! or ignored?

'He covered more than 18,000 miles in 14 countries of the former Soviet Union, travelling by car, bike, bus and taxi to hunt down and document these bus stops. The local bus stop proved to be fertile ground for local artistic experimentation in the Soviet period, and was built seemingly without design restrictions or budgetary concerns. The result is an astonishing variety of styles and types across the region, from the strictest Brutalism to exuberant whimsy.'

It is difficult to do justice in describing the range of designs, ask me for a view of my copy, or add it to your own bookcase, a great conversation piece.

Why review this book? Well it is IA, - we rave about former tram shelters in Brighton and those moved to Amberley Museum and it has alerted me to the fact that although our modern bus stop/shelters seem bland (boring!) in comparison, the subject is still one deserving of recording and reporting on.

There are even some that are listed, the three 1950s shelters at the Old Steine, Brighton will be familiar to many members, I recall many hours waiting for a bus at or near them in my younger years (yes I was young once! - have I grown up?). So next time you are waiting for a bus, or stuck behind in your car in traffic while a bus picks up passengers, note the shelter and if possible send in an image and details, you may well be surprised at the variety.

The Footpath along the Adur at Shoreham Airport

A Follow up

Martin Snow

In the last *Newsletter* I included the piece about the origin of the concrete slabs that form the footpath beside the River Adur at Shoreham Airport, as coming from the demolished Mystery Tower, despite my having heard an alternative explanation some time ago. I have now been able to locate reliable information that they were most likely cast and installed for the first events there by 1911. The hole in each slab being included to support a fence.

From *Shoreham Airport Sussex* by TMA Webb & DL Bird.

Wingfield saw the race as an opportunity to cash in on crowds watching the even!. He had a long corrugated iron fence erected along the top of the tow path, and right along the northern boundary to the Sussex Pad. He wanted to prevent spectators sitting on the bank instead of paying an entrance fee However it was a dismal failure as most people could see quite well from the surrounding high ground and he earned adverse publicity from the local press for “vandalism”.

The fence remained for many years, and readily identified the background as Shoreham in early photos.

Wingfield held a lease of land in the south-east corner of the present airport from 1909. There were various races and events at this time to promote the novel aeroplane, no doubt with an eye on the public's pocket!

So it makes it impossible for the slabs to have come from the second Mystery Tower as that idea had not even been thought of in 1911!

Pieces of the tower are still identifiable, in use as paving slabs, at King Charles Cottage in Southwick.

The small pieces of concrete surrounding Southwick Green though are from the foundations of the hutted camp for workers on the towers that covered the Green



The Path at King Charles Cottage, showing the metal reinforcement (John Blackwell)

Mystery Photo

Do you know your IA?



What is this a replica of
and where might you have seen it?

Please keep your eyes open for unusual features on your travels, or it may be something you pass every day, but the rest of us are unfamiliar with. I am always looking for examples of our IA heritage. If possible, let me have a picture, either for this feature or to provide inspiration for a future article(s).

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The path along top of the bank of the River Adur, at Shoreham airport showing the concrete slabs each cast with a hole to support the corrugated iron fence built in 1911 to impede the view of spectators hoping to avoid paying to view the events. One of the several WWII pill boxes built to defend the airfield, juts into the path in the middle distance.

(Martin Snow)

## Update

The mystery image in *Newsletter 170* was of course a milestone, This one is on the old A24 through Horsham, formerly the Horsham and Epsom Turnpike Trust of 1755. It is listed in Brian Austen's article in *Sussex Industrial History* 38, 2008 as Horsham Park TQ 172 313. It appears and disappears depending on the verge trimming regime.

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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*



The north west corner of The Selsey Pavilion seen in June 2015 on the occasion of the SIAS Selsey visit. The door in the sky once served an external staircase to the balcony.

Interesting things were obviously going on behind the hoarding (*Martin Snow*)

The same view in June 2016. The hoarding has gone and a new shop window gives on to Chaplin's Coffee House which now occupies the refurbished foyer (*Alan Green*)

