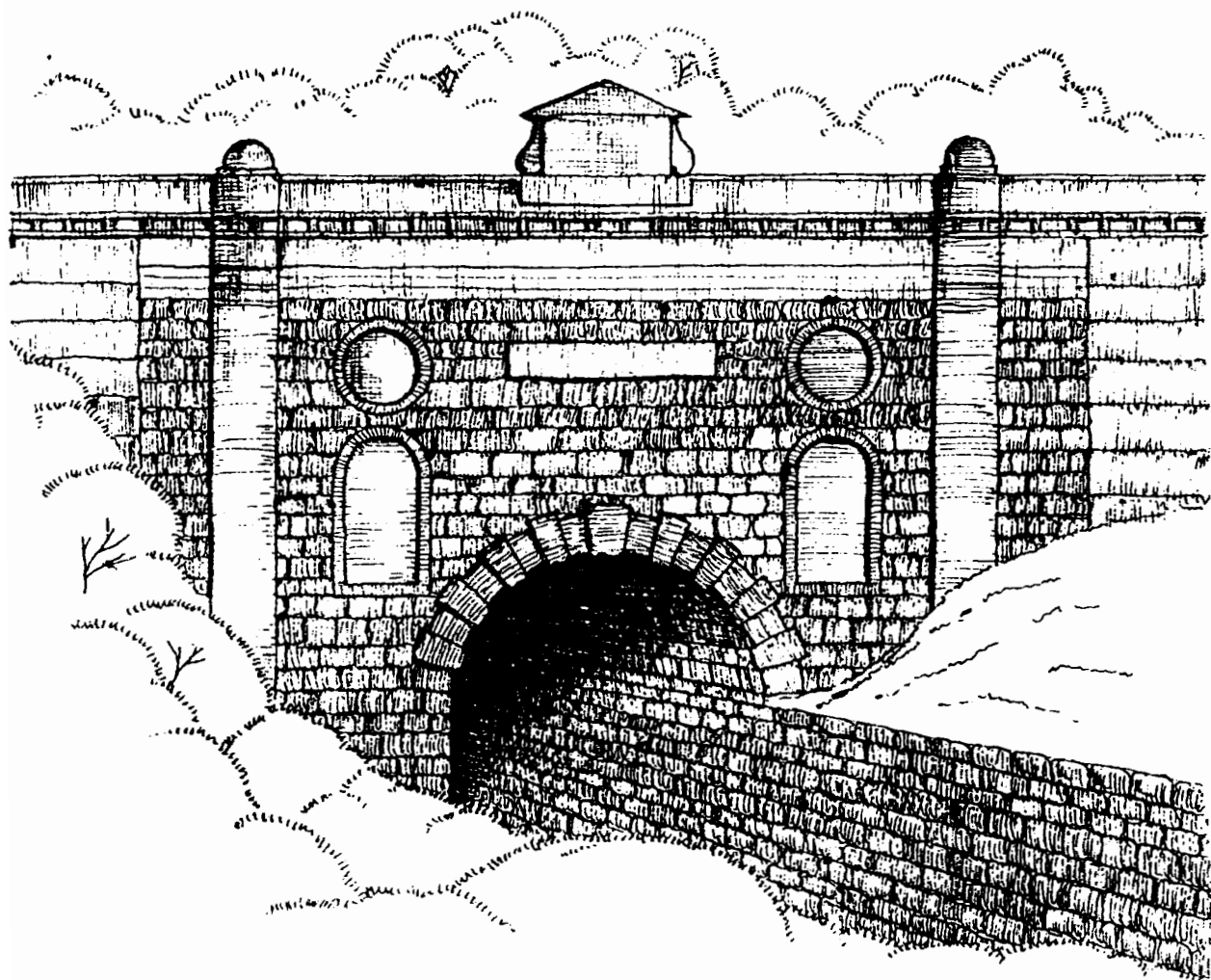


# GSIA

ISSN 0268-1420



# JOURNAL 1993

**GLOUCESTERSHIRE SOCIETY FOR INDUSTRIAL ARCHAEOLOGY  
JOURNAL FOR 1993**

**CONTENTS**

<b>Editorial</b>		<b>Page</b>	<b>2</b>
<b>Cheltenham Mills.</b>			
	<b>Amina Chatwin</b>	<b>Page</b>	<b>3</b>
<b>Conserving Mineralogical Sites in Afforested Areas: Problems and Strategies.</b>			
	<b>Ian Standing</b>	<b>Page</b>	<b>16</b>
<b>An Unrecorded Mill Site near Slad.</b>			
	<b>Stephen Mill</b>	<b>Page</b>	<b>23</b>
<b>Scenes at Sharpness Docks by Samuel Loxton.</b>			
	<b>Ray Wilson</b>	<b>Page</b>	<b>27</b>
<b>The Steam Rail Motor Cars Built by the Gloucester Railway Carriage and Wagon Company Limited for the Great Western Railway.</b>			
	<b>Ralph Tutton</b>	<b>Page</b>	<b>29</b>
<b>Record of Tidal Outfall at Hill Pill.</b>			
	<b>Ray Wilson</b>	<b>Page</b>	<b>37</b>
<b>Book Reviews</b>		<b>Page</b>	<b>43</b>
<b>Summer Visits 1993</b>		<b>Page</b>	<b>48</b>
<b>Officers</b>		<b>Page</b>	<b>56</b>
<b>Committee Members</b>		<b>Page</b>	<b>56</b>
<b>GSIA Members</b>		<b>Page</b>	<b>57</b>
<b>The Association for Industrial Archaeology</b>		<b>Page</b>	<b>60</b>

**All articles are the copyright of the authors.**

**The Aims of the Society:**

To stimulate interest in, to record, to study, and where appropriate to preserve items of industrial archaeology, especially in the County of Gloucester.

## EDITORIAL

This year, 1993, has seen the retirement of our President, the Reverend Awdry. He has been our President for fifteen years, more than half of GSIA's existence. He has always been an active supporter of all our activities: he gave lectures, and led visits, he chaired our AGMs, and attended the Annual Dinner whenever he could. He will be much missed at all these events.

This year's Journal contains a variety of papers. There is Amina Chatwin's on Cheltenham Mills which shows what can still be seen if one peers over walls or walks down lesser known paths. Then there is another paper on mills, Stephen Mills on a previously un-recorded mill site near Slad which shows how rich our county was in mills with their variety of uses.

On a very different aspect is Ian Standing's paper on Conserving Mineralogical Sites in Afforested areas. It deals with the problems of industrial archaeological sites and archaeological sites of earlier periods in forested areas where one might think there would be little in the way of threat.

Ray Wilson has written two pieces which deal with different aspects of the river Severn: Samuel Loxton's Drawings of Sharpness Docks. They show aspects now long gone. The other piece is on the Tidal Outfall at Hill Pill.

Finally there is Ralph Tutton's paper on the Steam Rail Motor Cars built by the Gloucester Railway Carriage and Wagon Company Limited. The company was important in Gloucester's industrial history and so it is good to see something on one its products.

In the country as a whole, 1993 was one of perhaps continuing recession but also with some signs of recovery. Does this affect industrial archaeology? I think it does. When there is recession buildings whether still in use for their original industry or re-used for something else fall into disuse and decay, and we lose working industries and their records. Thus there is more for us to record. When recovery comes buildings may be re-used, but more likely their sites gain in value and demoiition may be proposed. The need for recording becomes even more urgent. Hopefully we can all help in some way, by recording ourselves or drawing to the attention of others that a building or site is under threat.

Amber Patrick

My thanks to all who have helped in the production and proof reading of the Journal. Some of you may recognise our cover illustration, Sapperton Tunnel Portal, which we are using again this year.

## SUMMER VISITS 1993

### VISIT TO GLOUCESTER DOCKS

Saturday 13 March 1993

Many parts of Gloucester Docks have been radically altered in recent years as the area has been developed as a major commercial and leisure centre. Several years had passed since the last Society visit and so there was a good turn out of thirty members and friends for the walk led by Hugh Conway-Jones and Jim Simmons.

To start with, we had access to the Reynolds Double warehouse where the construction details, typical of all the warehouses could be appreciated. En route we saw the North Warehouse now restored for the City Council Offices and some of us had the opportunity to ring the Atlan bell now returned to the docks. Two warehouses now house museums (The National Waterways Museum and the Package Collection) and the former Custom House is now the Museum of the Gloucestershire Regiments. Other warehouses on the east side contain offices and a variety of tourist orientated shops. We were pleased to see a variety of interesting vessels in the docks and work going on in the graving dock.

Our guides were thanked for bringing us up to date in an area which has seen tremendous changes in recent years.

Ray Wilson

## VISIT TO MERTHYR TYDFIL AREA

Sunday 25 April 1993

The Society has often started the summer coach trips with a visit to South Wales. On this occasion we were very pleased to have our member Terry Evans from Merthyr Tydfil for our very knowledgeable guide to his locality. The visit attracted a good turn out of fifty members.

We met at the Ynys Fach Engine House, a preserved monument of the iron industry in a heavily redeveloped Merthyr. Since our last visit with our friend Ray Bowen this former stone shell has been splendidly converted into a visitor centre and small museum. We were entertained to Welsh Cakes and coffee and then saw a very informative video of the local coal and iron industries narrated in fine style by the Welsh actor Philip Madoe.

Our first walk was from the visitor centre to a vantage point overlooking the town and giving extensive views of the Taff Valley. Here Terry explained the development of the huge ironworks, the collieries and the vital transport systems. Moving south of the town we visited Abercanaid, a canal side iron village with early colliers housing. A huge mystery until we were enlightened was the presence of an up ended egg-ended boiler set in an earth bank adjacent to a row of houses. It had been placed here in the last war as an air raid shelter for an elderly lady.

We moved across the valley to the south portal of the Pen-y-Darren Tramroad Tunnel. This has recently been given a false facade complete with garish mosaic which depicts the early steam locomotive with considerable artistic licence! Retracing our route we then went onto the fascinating site at Cyfarthfa Iron Works. Here we walked along the line of an old tramroad (1792) and crossed the Taff by the 1826 Iron bridge (Pont-y-cafnan) and on to the massive Cyfarthfa Iron furnaces which we were able to enter to see the hearths. Returning to the coach we walked through the grounds of Cyfarthfa Castle which was closed for refurbishment. After a final stop to look at Dowlais stables we were soon on our way home after thanking Terry for an excellent day.

Ray Wilson.

## COMBE DOWN WALK

Saturday 1 May 1993

Unusually for one of our full day excursions this visit was carried out entirely on foot and proved to be most enjoyable.

We met outside the church at Combe Down where we were joined by our guides, members Owen Ward and Professor Angus Buchanan who both live in the locality. For the first part of the walk we had a third guide, Mrs Sheila Betterton, who is very active in a campaign to resist infilling of Combe Down underground stone workings with pulverised fuel ash from power stations. During our walk round the parish we saw much evidence of subsidence. This is threatening some buildings and has caused large depressions in the recreation field. Given the huge extent of the workings the residents are naturally very concerned about the environmental impact of large numbers of lorries carrying dusty loads and the potential problem of leaching pollutants from the ash. This part of the walk finished with coffee at Mrs Betterton's home where we could look at old maps and prints of the stone workings.

After thanking the Bettertons for their hospitality we circled round the head of the Horscombe Vale. Various points of interest were pointed out before arriving at the pub where some of us took lunch. The others picnicked in the attractive garden of Mr and Mrs Pizey, the owners of the next site to be visited which was a former fullers earth mine across the vale. We not only looked at the now blocked-up mine entrances but also enjoyed the nature reserve Mr Pizey was creating. One meadow was particularly rich in delightful orchids. We descended the incline to look at the remains of the workings at the bottom.

From here we walked down the valley following the salt glazed pipeline which carried the fullers earth slurry down to Tucking Mill where it was processed in large settling tanks.

We saw the pretty cottage adjacent to the line of the Somerset Coal Canal where William Smith (The Father of Modern Geology) is reputed to have lived while surveying the canal (or so the plaque on the wall proclaims!) Our guides pointed out the nearby cottage which was the true home of Smith. The steep climb uphill took us past the site of a Bath stone mine and the former De Montallt paper mill. Regaining our breath we joined in thanking our leaders for a splendid day.

An unexpected bonus to follow this was the kind invitation from Mrs Jane Way to view Limpley Stoke Mill which had recently been converted. It is now the home of a firm that develop computer software to manage pension funds. Here we enjoyed a welcome cup of tea and were able to relax by the river.

Ray Wilson

## VISIT TO HAM MILLS

Thursday 10 June 1993

Ham Mills at Thrupp has a long history in various branches of the textile industry, but now makes yarn for the Carpets of Worth carpet factory at Stourport. It uses about 1,840,000 kg of fibres (mainly wool, the cleaned selected wool from about 1,400,000 sheep) to make about 1,800,000 miles of yarn every year.

As part of the 1993 "Industrial Heritage Year" the Stroud Museum Association Textile Group and Messrs Carpets of Worth arranged an "Open Week". This was mainly aimed at schools and several hundred children visited the mill. Interested organisations could arrange evening visits and on 10 June 30 GSIA members and friends made the tour.

Our visit started in the factory shop where we saw display material and a video of the Stourport factory. We were invited to handle the widely different types of wool (British, New Zealand and East Indian) and nylon which are blended to make the yarn.

The party were then paired off to spin slubbings (produced by the carding machines) by hand to make a (sort of) yarn. These yarns were then "doubled" demonstrating the need for twist in doubling to be in the opposite direction to the original spinning.

The blending of the appropriate weights of fibres and the transfer to the carding machines is carried out pneumatically.

The carding machines are fed with blended fibres at a constant rate and a series of large and small rollers, covered with card clothing (wire brushes) straightens out the fibres into a gossamer sheet across the width of the machine. Half way along the machine the sheet is collected by an intriguing mechanism, called a Scotch Feeder and then fed at right angles to its flow into a second set of rollers. This reduces any uneven thickness across the first set.

At the end of the second set of rollers the web is split into numerous small strands which are lightly rubbed sideways to make the fibres hold together while the resulting "slubbings" are wound onto rollers.

The rollers are transferred to a ring spinning machine and spun and wound onto spools. These are single ply yarns and at Ham these spools pass to a doubling machine (similar to the spinner) where two (or more) yarns are twisted (in the opposite direction) to form two (or more) ply yarn.

The yarns are then wound on a high speed machine into hanks of a suitable size for subsequent dyeing and carpet making operations. An ingenious final process reduces the volume of the loose hanks into a tightly packed bale for transport, using a vacuum.

The mill has two main production lines, one with "middle aged" carding machines and a modern machine with three metre wide rollers. We were also able to examine in detail a small 1920s "sample" carder.

It was possible to see the various stages of development of the mill buildings and we saw the old pond and sluices from water power days. The last Lancashire boiler from the steam powered era is still on site converted to a fuel tank and the remains of the economiser house are still visible.

Carpets of Worth, and in particular the local manager, Mr Stephen Kennedy and the SMA Textile Group (who organised volunteer guides and research for the display material) are to be congratulated on a very successful effort to make manufacturing industry more accessible, particularly to school children.

Jim Simmons

## VISIT TO RADSTOCK AND TROWBRIDGE

Saturday 17 July 1993

Two fine museums, very different, but both the product of local enterprise featured in our midsummer outing.

We started at the Radstock and Midsummer Norton Museum which was created and is run by volunteers. This contains a wealth of social history but of particular interest to us was the section depicting the Somerset Coalfield. The exhibits were brought to life by the ex-miner who had come in to show us round. Even in the museum's short existence it has been necessary to expand into additional buildings and there are several outdoor exhibits. If you did not come on the trip we can recommend it to you. Moving on in the company of two ex-miners we had a short tour round some of the sites of nearby collieries and the railways that served them. At Camerton, the Parish Council are to be commended for their conservation work and interpretation panels at the large colliery spoil heap and shaft, and nearby Somerset Coal Canal.

Lunch was taken at Trowbridge and the first part of the afternoon was spent at the Trowbridge Museum. This has been set up in an upper floor of Salters Mill which was the last woollen mill to work in Trowbridge. The museum has been created by the



Town Council and local people, and is a fine achievement. Again there is a good combination of industry and social history on display. Much of the woollen machinery can now be operated following restoration and some of it was demonstrated on the day. A teazle raising gig on display came from Longfords Mill, Minchinhampton.

At the museum we were joined by Mr Ken Rogers former Wiltshire County Archivist and Chairman of the Museum. He is a well-known authority on the West of England cloth industry and the town of Trowbridge. We then walked round the town with Mr Rogers and enjoyed a very interesting and comprehensive commentary on the buildings. Most of these were associated with the cloth industry and some are extremely fine architecturally. At one stop, a former hand loom weaver's house, we were invited in by the owner to inspect the interior.

We thanked Mr Rogers for his most illuminating walk and set off home via Bradford on Avon.

Ray Wilson

### **SOCIAL EVENING TEWKESBURY RIVERSIDE WALK**

Thursday 5 August 1993

The ancient Borough of Tewkesbury was the venue for the Annual Social Evening. However, this time it was the fascinating riverside area rather than the town that we were visiting.

Our guide was member Hugh Conway Jones and more than 30 members and friends turned out on a beautiful summer's evening. We started at Healing's Mill at the bottom of Quay Street and then walked along the mill Avon to the former Abbey Mills. Here we could see that the adjacent floodgates were manufactured, in the mid 1930s, by the famous Horsley Ironworks Company.

We then ambled across the Ham to the Severn at Upper Lode with its Weir and Lock. We followed the river bank back to Healing's and could see some of the grain barges moored nearby. We then passed the Avon lock en route to look at King John's Bridge and the new developments in that area including the reconstruction of the Weir on the Avon.

Hugh was thanked for leading the very interesting walk and members repaired to the Black Bear to continue the Social Evening.

Ray Wilson and Jim Simmons

## VISIT TO FILKINS, OXFORDSHIRE

Saturday 21 August 1993

On a fine summer Saturday afternoon 30 members gathered outside the tiny village museum at Filkins with Broughton Poggs just outside the county, four miles north of Lechlade. The museum was started by Mr George Swinford with the help and encouragement of Sir Stafford Cripps in the mid 1930s in an old cottage. It contains a large collection of village bygones and documents.

Our guide was "young" George Swinford (aged 80) son of the founder who died only recently at the age of 100.

It was only a very short walk up the road to the Cotswold Woollen Weavers who produce cloth on the premises which is made up into clothing and other items for sale in their shop. A small but interesting collection of woollen textile equipment has been gathered by the owner Mr Richard Martin and is on display to visitors to the site. The coffee shop provided welcome refreshment and members lingered on to enjoy the pleasant surroundings.

Ray Wilson.

## VISIT TO THE WEST MIDLANDS

Saturday 25 September 1993

On our final coach excursion fifty members went northwards to visit two industrial museums not previously visited and to take a short walk along the Tame Valley Canal where it crosses the busy M5. We had the local knowledge of member John Foley to navigate us through Birmingham to a part of Hockley better known as the Jewellery Quarter. In its heyday this housed many small and family businesses engaged in all aspects of the jewellery trade.

The City Museum has acquired one such business which is largely unaltered from the turn of the century. A fire next door enabled the Council to build a modern museum to display the history of the trade and many artefacts (old and new). The preserved office and workshop with working demonstration was of great interest and a visit is highly recommended. The guides covered the family and social history as well as technical matters.

One feature of the trip was the extensive commentary by John Foley, en route, and he also fitted in a look at the site of the former canal/railway interchange at Winson Green.

After lunch at a pub, we clambered up on to the nearby Tame Valley Canal embankment. This was one of the last of the Birmingham Canal Navigation canals to be built. It was completed in 1844 and ran between Tame Valley Junction at Ocker Hill to Salford Junction near the Gravelly Hill interchange. In a short walk we crossed a railway, a river, a road and a motorway by a series of aqueducts. We looked down on traffic queuing on the M5 to join the M6 and wondered how many of the motorists guessed there was a canal above their heads.

A short drive brought us to the Walsall Leather Centre. The museum is housed in part of a former tannery along with an Education Centre for the leather industry. We learnt about the tanning of various skins and uses of leather particularly saddlery. There were particularly good demonstrations of the smaller leather wares from retired craftsmen who were also thoroughly entertaining. Some of our members gained "hands-on" experience. Finally, we went to the Tame Valley Junction at Ocker Hill where the Tame Valley Canal met the Walsall Canal.

Ray Wilson

#### VISIT TO BILL MILLS AND HOPE MANSELL AREA

Sunday 10 October, 1993

The final half day walk also took us just outside the county, this time into Herefordshire.

A very large party totalling 41 met at Bill Mills near Ross-on-Wye. The site now houses a modern fruit juice processing factory (Dayla) in purpose built accommodation. The old mill and pond still remain and the mill contains a restored overshot water wheel (approximately 3 metres in diameter) which we saw in operation, driving a small generator which powered lights in the mill basement. There is also a small Tangye Steam Engine.

The second part of the afternoon was an exploration (some might say assault course) of just part of the extensive network of ancient sunken tracks in the Hope Mansell area. The walk was led by David Mullins, formerly at the Dean Heritage Museum, who has been recently investigating the subject. The origin and development of the cut track ways remains something of a mystery and we listened with interest to the various possibilities discussed by David. Safely back at the cars we thanked our leader for a fascinating walk.

Ray Wilson.

## THE ASSOCIATION FOR INDUSTRIAL ARCHAEOLOGY

The AIA's activities started as usual with the Local Societies Week-end at Ironbridge. The programme was varied and included lectures on publishing one's work and being a volunteer working in a museum. There was also a session presenting the AIA's work on IRIS (Index Record of Industrial Sites) and its use for County Sites and Monuments Records.

The other main event of the year was of course the Annual Conference held this year in Cumbria, at Ambleside. It was a thoroughly enjoyable and informative occasion, although somewhat wet at times. I did not attend the whole conference, but I did visit Barrow-in-Furness and witness the new dock entrance gate in action at high tide. The other visits I went on were to the planned town of Whitehaven, and to Sellafield. Dr Marilyn Palmer gave the Rolt Memorial Lecture: Industrial Archaeology: Continuity and change. It was an excellent lecture and the text will be published in Industrial Archaeology Review in due course. If you are interested in coming to any of the AIA's events please contact me.

Amber Patrick