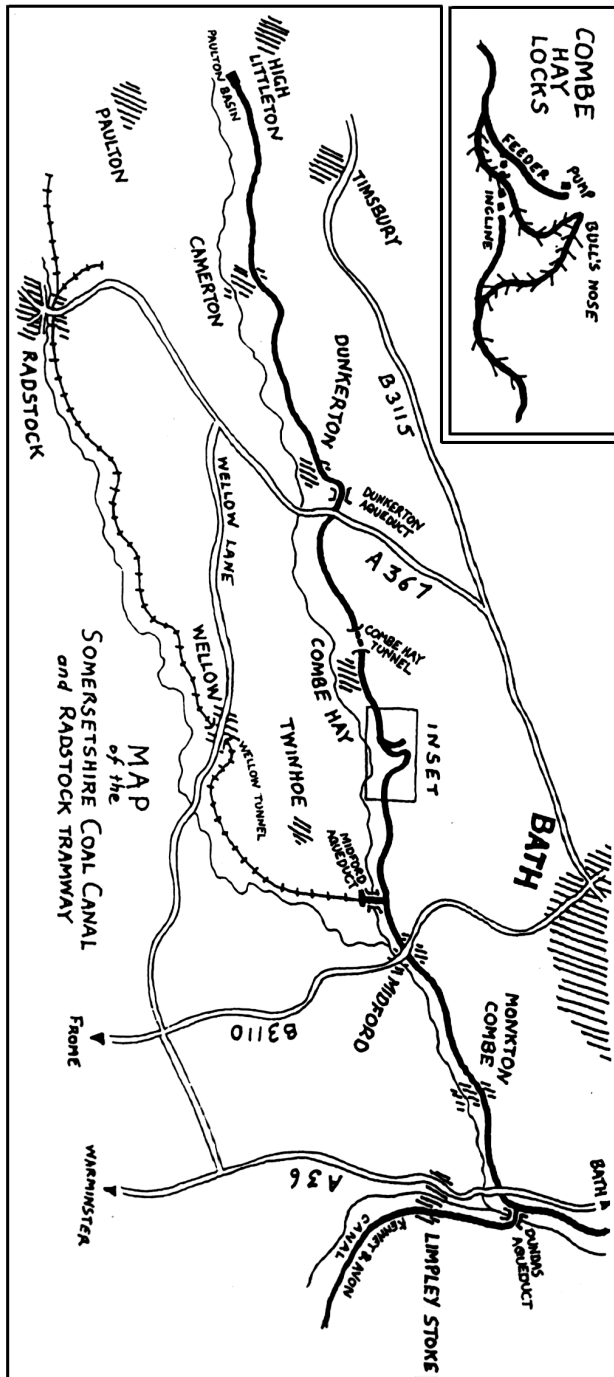


# WEIGH-HOUSE

THE MAGAZINE OF THE  
SOMERSETSHIRE COAL CANAL SOCIETY



Website: <http://www.coalcanal.org>



## EXECUTIVE COMMITTEE

### CHAIRMAN – PATRICK MOSS

☎ 07736 859882 *E-mail:* [chairman@coalcanal.org.uk](mailto:chairman@coalcanal.org.uk)

### VICE CHAIRMAN & WORK PARTY ADMINISTRATOR – DERRICK HUNT

43, Greenland Mills, Bradford on Avon, Wiltshire BA15 1BL

☎ 01225 863066 / 07986 972984 *E-mail:* [workparty@coalcanal.org.uk](mailto:workparty@coalcanal.org.uk)

### SECRETARY – VACANT

### TREASURER – DAVID CHALMERS

'Shalom' 40, Greenleaze, Knowle Park, Bristol BS4 2TL

☎ 0117 972 0423 *E-mail:* [treasurer@coalcanal.org.uk](mailto:treasurer@coalcanal.org.uk)

### MEMBERSHIP SECRETARY – TAMARISK KAY

c/o 43, Greenland Mills, Bradford on Avon, Wiltshire BA15 1BL

*E-mail:* [membership@coalcanal.org.uk](mailto:membership@coalcanal.org.uk)

### SECRETARY TO THE COMMITTEE – JOHN DITCHAM

☎ 01225 8308711 *E-mail:* [secretary@coalcanal.org.uk](mailto:secretary@coalcanal.org.uk)

### PROJECT OFFICER – TONY YATES

☎ 01225 781312 / 07748 113832 *E-mail:* [projects@coalcanal.org.uk](mailto:projects@coalcanal.org.uk)

### HISTORICAL ADVISOR – MIKE CHAPMAN

51, Newton Road, Twerton, Bath BA2 1RW

☎ 01225 426948 *E-mail:* [history@coalcanal.org.uk](mailto:history@coalcanal.org.uk)

### ENGINEERING ADVISOR – RICHARD HIGNETT

☎ 01793 855631 *E-mail:* [engineering@coalcanal.org.uk](mailto:engineering@coalcanal.org.uk)

### MAGAZINE EDITOR – ADRIAN TUDDENHAM

88, Mount Road, Southdown, Bath BA2 1LH

☎ 01225 335974 *E-mail:* [editor@coalcanal.org.uk](mailto:editor@coalcanal.org.uk)

### ARCHIVIST – ROGER HALSE

4, Westminster Gardens, Chippenham, Wiltshire SN14 0DF

☎ 01249 652846 *E-mail:* [archive@coalcanal.org.uk](mailto:archive@coalcanal.org.uk)

### COMMITTEE MEMBER — RICHARD FOX

☎ 01761 479391 *E-mail:* [richardrmf@hotmail.com](mailto:richardrmf@hotmail.com)

### PUBLICITY OFFICER – DAVID JESSEP

☎ 07967 958486 *E-mail:* [publicity@coalcanal.org.uk](mailto:publicity@coalcanal.org.uk)

**VACANCIES: SECRETARY, EVENTS ORGANISER, WORK PARTY ORGANISER.**

---

*Website:* <http://www.coalcanal.org>

---

The Somersetshire Coal Canal Society was founded in 1992 to:

'FOCUS AN INTEREST ON THE PAST, PRESENT AND  
FUTURE OF THE OLD SOMERSETSHIRE COAL CANAL'

The Society became a registered charity in 1995 and now has the  
Objects:

- 1) To advance the education of the general public in the history of the Somersetshire Coal Canal
- 2) The preservation and restoration of the Somersetshire Coal Canal and its structures for the benefit of the public

\*\*\*\*\*

Registered Charity N<sup>o</sup> 1047303

Registered under the Data Protection Act 1984 N<sup>o</sup> A2697068

Affiliated to the Inland Waterways Association N<sup>o</sup> 0005276

Inland Revenue reference code for tax purposes: CAD72QG

\*\*\*\*\*

## MEMBERSHIP

Membership Application Forms are available from  
the Membership Secretary, Tamarisk Kay  
c/o 43, Greenland Mills, Bradford on Avon, Wiltshire BA15 1BL  
*E-mail:* [membership@coalcanal.org.uk](mailto:membership@coalcanal.org.uk)  
and on the Society Website: <http://www.coalcanal.org>

---

The Editor welcomes letters, articles, photographs *etc* for inclusion in  
**WEIGH-HOUSE** and will try to include them in full, but reserves the right to shorten  
them if necessary. Author's guidelines are available at:

<http://www.coalcanal.org/wh/guidelines.htm>.

Please send articles and correspondence to:

Adrian Tuddenham 88, Mount Road, Southdown, Bath BA2 1LH

☎ 01225 335974 *E-mail (not HTML):* [adrian@poppyrecords.co.uk](mailto:adrian@poppyrecords.co.uk)

THE VIEWS AND OPINIONS EXPRESSED IN THIS MAGAZINE DO NOT  
NECESSARILY REPRESENT OR CONVEY THOSE OF THE SOCIETY

Thursday 16<sup>th</sup> April— 19:30

**SOCIAL EVENING — THE COAL CANAL ARCHIVE**

by Roger Halse

Meet: The Radstock Working Men’s Club.

For further details please see website or contact: *Steve Page* ☎ 01761 433418

Sunday 19<sup>th</sup> April —10:00

**WALK — THE KENNET & AVON CANAL AT AVONCLIFF**

Meet: Avoncliff car park (south side), access from Westwood

For further details please see website or contact: *Mike Chapman* ☎ 01225 426948

Sunday 3<sup>rd</sup> May —10:00

**WORK PARTY — Location to be advised**

For further details please contact: *Derrick Hunt* ☎ 01225 863066

Sunday 17<sup>th</sup> May —10:00

**WALK — THE KENNET & AVON CANAL AT BRADFORD ON AVON**

Meet: Avoncliff car park (south side), access from Westwood

For further details please see website or contact: *Mike Chapman* ☎ 01225 426948

Sunday 7<sup>th</sup> June —10:00

**WORK PARTY — Location to be advised**

For further details please contact: *Derrick Hunt* ☎ 01225 863066

Tuesday 16<sup>th</sup> June —19:30

**ANNUAL GENERAL MEETING**

Radstock Museum

For further details please contact: *Patrick Moss* ☎ 07736 859882

Saturday 20<sup>th</sup> & Sunday 21<sup>st</sup> June —10:00 - 16:00

**W.R.G. BITM WORK PARTY — Radford, Paulton, Timsbury.**

For further details please contact: *Derrick Hunt* ☎ 01225 863066

Saturday 27<sup>th</sup> June —10:00 - 16:00

**WILLIAM SMITH EVENT**

Conygre Hall, Timsbury

For further details please contact: *Sue Langdon* ☎ 01761 470972

Saturday 4<sup>th</sup> & Sunday 5<sup>th</sup> July

**CANAL FESTIVAL — Radford to Paulton Basin**

For further details see P 20 or contact: *Richard Fox* ☎ 01761 479391

Website: <http://www.radfordmillfarm.com>

Sunday 5<sup>th</sup> July

**FESTIVAL WORK PARTY — A chance to demonstrate our skills**

For further details please contact: *Derrick Hunt* ☎ 01225 863066

**WEIGH - HOUSE N<sup>o</sup> 69**

EDITOR’S NOTES .. .. .	3
CHAIRMAN’S NOTES .. .. .	4
NOTICE OF A.G.M. .. .. .	4
DONATIONS .. .. .	5
RESULT OF THE PAULTON DRY DOCK APPEAL .. .. .	5
MYSTERY PAYMENT .. .. .	5
VOBSTER & COLEFORD COLLIERIES WALK by Terry Paget .. .. .	6
RESTORATION PROGRESS .. .. .	9
THE S.C.C. AND THE INCLINED PLANE by Mike Chapman .. .. .	16
CANAL FESTIVAL AND ASSOCIATED EVENTS by Richard Fox .. .. .	20
EXPLORE THE CANAL YOURSELF .. .. .	20
DATES FOR YOUR DIARY .. .. .	21

**EDITOR’S NOTES**

This issue of Weigh-House has set a record for delayed publication which I hope will never be surpassed — however, the reasons for the delay are as laudible as they were unpredictable:

At the end of last Summer, the landowners from Paulton Basin to Radford offered the Society an opportunity for restoration which we had not predicted or prepared for: the whole stretch of canal was at our disposal as long as we got on with the job without delay. For farmers, their land is their livelihood, so any other activities must be timed to fit in with the seasons and not interfere with the rotas of crop planting, livestock rearing and (increasingly these days) commercial tourism. There were no “ifs” or “buts”; we wouldn’t get an opportunity like this again for a long time.

The members of the Committee had to suspend their usual Society activities — and sometimes their normal lives — and get down to the detail of planning what amounted to a considerable civil engineering project with a starting deadline that was effectively “Now!”. Hundreds of hours of extra work were involved, with such diverse activities as measuring-up, digger and dumper driving, writing work plans and tentative specifications (which sometime changed twice during a single day as more discoveries were made) and dealing with the checking and payment of contracts and expenses. All this extra work fell on a few members of the Committee, including your Editor.

So that is my excuse.

**ADRIAN TUDDENHAM**

Check the website:  
<http://www.coalcanal.org>  
for last-minute changes

## CHAIRMAN'S NOTES

I am writing these notes at my desk in Frome whilst a work party proceeds at the Paulton to Radford length of canal, which looks very different from the way it did just eight months ago. Back then, I walked the line at Radford Mill with Richard Fox and Sara Coffield (land owner and Festival coordinator, respectively) and to put it simply, there was no canal. The Radford Canal Festival is probably the most exciting event for the Society since the restoration of Midford Aqueduct put us on the map over ten years ago.

That this situation has changed so dramatically, is the result of our desire to host the Radford Canal Festival; and such a festival needs a canal. It is also the culmination of many years of advanced works, not least fund-raising over many years. We have been able to hire plant and equipment for use on well over half a mile of canal because we already had the money. This happy situation will not last however — we need more funding, either as cash or materials.

We had a splendid response to the Dry Dock appeal last year, and during the current works have received £500 from the I.W.A., Avon & Wilts branch, and £5,000 from the Medlock Charitable Trust. Against this we've spent nearly £16,000. We need major donations and major funding and I make a plea to you all to consider if you can help with this. It doesn't mean reaching into your own wallet (although it could — we certainly won't refuse!) but if your employer gives grants to charities, or if you can think of a fundraising event you might hold, or any other way in which you might help us raise money, we would like to hear from you. Alternatively you may have tools, equipment or materials we can use, or know someone who has. Recent donations in this line include timber, stone and a cement mixer!

We also need more hands-on volunteers, especially on the work parties. Whilst being mobile is essential, being fit and strong is not. We also need volunteers in so many other capacities — if you have time that you could give, please let us know

We are asking for fund raisers, tea makers, those who hand out leaflets and so much more, because without them the diggers will have to stop.

**Patrick Moss**

---

## ANNUAL GENERAL MEETING

The next Annual General Meeting of the Somersetshire Coal Canal Society  
will be held on  
Tuesday 16th June 2015  
at the Radstock Museum, Waterloo Road, Radstock, commencing 7.30 pm.

---

## DATES FOR YOUR DIARY — 2015

Thursday 15<sup>th</sup> January — 19:30

**SOCIAL EVENING — COAL FROM CAMERTON — Part 2**

by Mike Chapman

Meet: The Radstock Working Men's Club.

For further details please see website or contact: *Steve Page* ☎ 01761 433418

Sunday 18<sup>th</sup> January — 10:00

**WALK — CAMERTON TO RADFORD MILL**

Meet: Bottom of Redhill

For further details please see website or contact: *Mike Chapman* ☎ 01225 426948

Sunday 1<sup>st</sup> February — 10:00

**WORK PARTY — Location to be advised**

For further details please contact: *Derrick Hunt* ☎ 01225 863066

Sunday 15<sup>th</sup> February — 10:00

**WALK — A VISIT TO THE RALPH ALLEN CORNERSTONE MUSEUM.**

Meet: At the museum (please park thoughtfully).

For further details please see website or contact: *Mike Chapman* ☎ 01225 426948

Thursday 19<sup>th</sup> February — 19:30

**SOCIAL EVENING — RESTORATION UPDATE**

by Derrick Hunt, Adrian Tuddenham & Richard Fox

Meet: The Radstock Working Men's Club.

For further details please see website or contact: *Steve Page* ☎ 01761 433418

Sunday 1<sup>st</sup> March — 10:00

**WORK PARTY — Location to be advised**

For further details please contact: *Derrick Hunt* ☎ 01225 863066

Sunday 15<sup>th</sup> March — 10:00

**WALK — TUCKING MILL**

Meet: Twinhoe Lane, Midford

For further details please see website or contact: *Mike Chapman* ☎ 01225 426948

Thursday 19<sup>th</sup> March — 19:30

**SOCIAL EVENING — THE COTSWOLD CANALS — from "Pie-in-the-Sky" to Front Runner Project**

by Ken Burgin of the Cotswold Canals Trust

Meet: The Radstock Working Men's Club.

For further details please see website or contact: *Steve Page* ☎ 01761 433418

Sunday 12<sup>th</sup> April — 10:00

**WORK PARTY — Location to be advised**

For further details please contact: *Derrick Hunt* ☎ 01225 863066

## CANAL FESTIVAL AND ASSOCIATED EVENTS

*The last several months have seen extraordinary activity at Paulton and Radford: the Dry Dock completely excavated and cleared, the landmark Dry Dock bridge being rebuilt, Terminus Bridge abutments revealed and the Canal itself excavated for about 2/3 mile (1km). Several structures have been revealed along the Canal: a narrows and a wharf to load coal from the Withy Mills pit, two more narrows and a wall at Dunford, a long angled wharf at Radford and the outline of the bridge carrying Radford Mill Farm driveway (Radford Mill Farm is shown as "Dunford" on the Cruse Map P 13).*

We're going to show off all of this at a Restoration Festival on 4<sup>th</sup> and 5<sup>th</sup> July 2015, at Radford Mill Farm; and we're scheduling activities during the preceding week in Timsbury and in the Paulton Basin - Radford area. First, there's a Study Day on Saturday, 27<sup>th</sup> June at the Conygre Hall, Timsbury, with lectures and presentations about local mining, the importance of the Canal transport and the crucial connections between the Canal and William Smith's development of his revolutionary theories about fossil succession, which underpinned Darwin's theories of evolution.

We'll be scheduling talks with guided walks to Rugbourne House (Smith lived there for three years), Mearns pit, the Withy Mills tramway route and wharf, Paulton and Timsbury Basins and the Dry Dock, and all along the newly revealed section of Canal.

On the Festival weekend, 4<sup>th</sup> and 5<sup>th</sup> July at Radford we'll be having all-weekend events - - lots of good music, a ceilidh, poetry readings, craft stalls, workshops to make puddling clay and practice blacksmithing. There will also be lots of good home-cooked food and home-brewed apple beverages. Boat owners will be welcome and we hope to have a new ramp constructed to make launching boats easier. The 'Jolly Collier' barge will be taking passengers on the first official boat journey along the Canal in 117 years; and 'William Smith' himself will be asking for assistance to survey the Canal and towpath. It will be very family friendly, with overnight camping and a big breakfast on Sunday morning.

More details, updates and Festival ticket sales at:  
<http://www.radfordmill.co.uk>

**RICHARD FOX**

---

## EXPLORE THE CANAL YOURSELF

You don't have to wait until next July to see the progress along the S.C.C. between Paulton Basin and Radford, there are plenty of public footpaths giving good access to the canal and a walk along the towpath will amaze anyone who remembers what the line of the canal looked like only a year ago. While the weather is wintry and the ground still saturated by the recent persistent rain, you will need stout walking boots or wellingtons.

The most direct access is from Hanham Lane or from Goosard Bridge along the footpath beside the drive of Paulton Sewage Works; but please park thoughtfully so as not to obstruct access, which the residents and the Works need at all times. If you enjoy a longer walk, park in Paulton Public Car Park and walk to Goosard Bridge.

## DONATIONS

The Society wishes to express its thanks for the following generous donations:

### *Financial Donations*

Medlock Charitable Trust  
Inland Waterways Association, Avon and Wilts. Branch  
Mr. D. Bartlett, Warminster

### *Practical Donations*

B.I.T.M. Waterway Recovery Group — Work parties  
London Waterway Recovery Group — Work parties  
Ashen Cross Quarry — Blue Lias stone for the Dry Dock arch  
Sydenhams (Bath) Ltd. — Wooden battens for signs and markers  
J.Bale, Timsbury — Electric cement mixer  
Mr. F. Moore, Bath — Hand-operated water pump  
Kev the Plumber — Pipe fittings for the water supply at Withy Mills stop point  
Local Resident — Supplies of bread & butter pudding to the October work party

---

## RESULTS OF THE APPEAL FOR FUNDING TO EXCAVATE PAULTON DRY DOCK

In spring of 2014 we asked help in funding the cost of excavating Paulton Dry Dock. This would be the Society's first significant restoration project — the basin, because of its size, was also significant nationally as well. You responded to the appeal magnificently and it raised £1,189 (includes tax we can recover). So a big "Thank You". This amount more than covered the cost, and, as we said in the appeal, if that happened it would be used for restoration elsewhere. As we are now restoring the line of the canal in that area, the extra amount has gone towards the cost of that.

**DAVID CHALMERS**

---

## MYSTERY PAYMENT

The Treasurer has received a payment which appears to be for the sum of £20.00 less a "Google Stripe" handling charge, the details of which were given as:

23/12/2014 BANK GIRO CREDIT REF STRIPE PAYMENTS EU, STRIPE PAYMENTS EU £19.32

If anyone knows who made this payment or what it was for, could they please contact the Treasurer



## VOBSTER AND COLEFORD COLLIERIES WALK led by Shane Gould Sunday 19<sup>th</sup> October 2014

*On a splendid warm and sunny morning sixteen members and two dogs gathered at the Kings Head, Coleford, for this walk. Most were unknown to me – I must get out more – and they included several bonny young ladies, fans of Shane I suspect, (one being his mother). Shane led us eastwards along the bottom of the Mells River valley, visiting the sites of Vobster Breach and Vobster New Collieries; then up the incline to Vobster Cross, thence along the line of the Dorset and Somerset Canal past Newbury and Mackintosh collieries, and back to the Kings Arms. At various points of interest Shane addressed us.*

As we crossed the Mells River I observed to a fellow walker that it was in good flow, and he enquired whether I had heard the story about a German submarine coming up it during the war. I confessed I had not, so he told me a long tale how this vessel had worked its way up to Coleford before running aground, freeing itself and struggling back towards open water. It was captured somewhere on the return voyage, and bits of it can still be seen in villages along the river. [We hope to display some of them in the Caisson Exhibition Centre on March 32<sup>nd</sup> — Ed]

Coal outcropped around Coleford and had been mined in small bell pits for centuries, long before deep mining began around Radstock. The failure of the Dorset and Somerset Canal had denied good transport links to deep mines, so none prospered until the arrival of the railways.

Vobster Breach (1861-1878) and Vobster New (1840-1880) were developed for production of coke destined for the Seend Iron Works, Wiltshire, which the S.C.C.S. visited some years ago. Apparently there was a mania of iron production about 1860, but it passed, and with its passing the mines closed. These were gassy mines, and suffered several explosions. →



SHANE GOULD AT THE VOBSTER COKE OVENS — October 2014

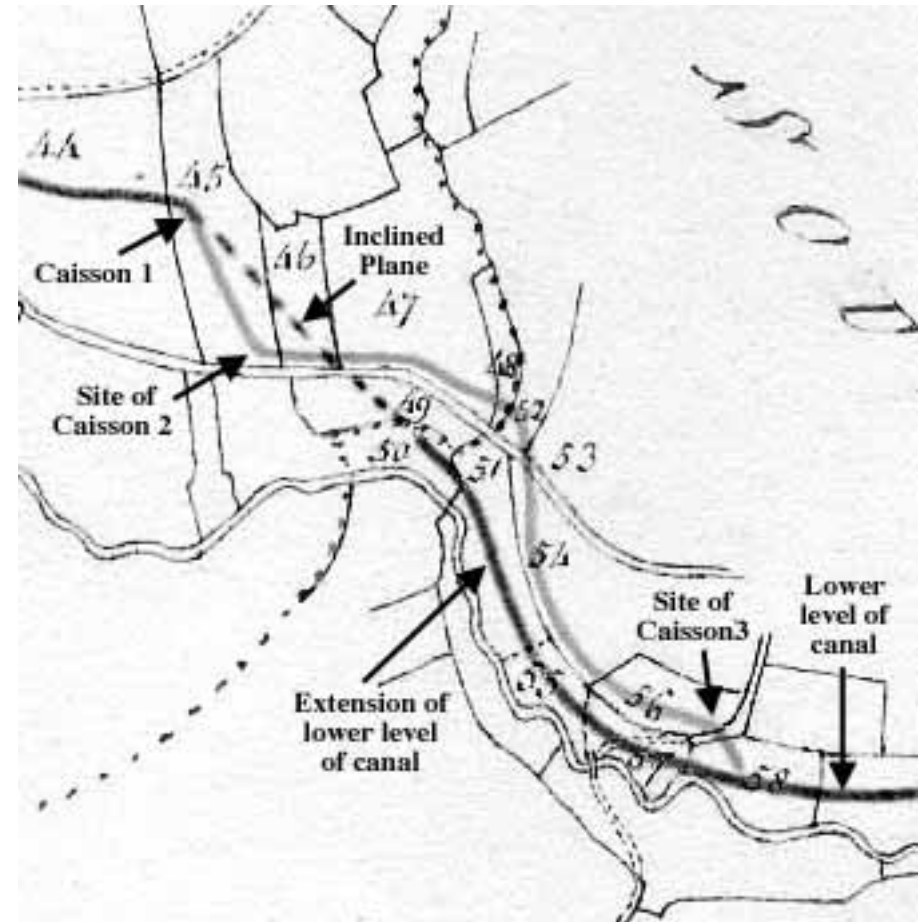


Fig. 3 — WILLIAM SMITH'S DEVIATION PLAN — 1795

When the second act was passed (24 March 1796), tenders for building the caisson lock had already been put out, and during the next three years while the lock was under construction there is no further mention of the Inclined Plane. However, doubts about the caisson lock were always present, and it is clear that the plan for an inclined plane was kept in reserve in case of failure. Although the lock was nearly complete by June 1797, it was not until June 1798 that a successful trial was carried out, and even then further delays were encountered. As a result, by January 1799 the opinion of two experienced engineers was taken as to the practicability of the design, and Bennet (now Chief Engineer) and Smith (sub-Engineer) were asked inspect the Radstock and Dunkerton lines respectively to consider if an alternative to the Caisson Lock was possible.

To be continued in Weigh-House 70



Following the acceptance of Rennie's report in October, a draft bill was completed for submission to Parliament by February 1794, and on 17 April Royal Assent was given for '...a Navigable Canal with certain Rail Ways, and Stone Roads ...' (the words 'Rail Roads' or 'Rail Ways' here refer to the railways leading from the collieries to the canal, and not to the canal itself). However, in the meantime, Rennie had suggested to the management committee that the upper reach of the canal would be better carried to a higher level, thereby avoiding the Combe Hay tunnel, and in June William Smith was instructed to accompany William Jessop and John Rennie to survey the new route.

Jessop and Rennie agreed that there would be no problem with the water supply, but their report, presented in July, was rejected, much to Rennie's disgust. It is said that Jessop had pointed out that a canal would not be needed over such a short distance, and an independent tramway would be sufficient, an idea which, in retrospect, had considerable potential and was successfully adopted by Jessop soon after for the Surrey Iron Railway ('the world's first independent public railway') in 1801. One of the concerns of the coal owners at this time was the damage to the coal that might occur on an uneven tramway, thereby considerably reducing its value, and only later experience showed much of Somerset coal to be less 'tender' than originally thought, as demonstrated by Hodgkinson's tramway along the Radstock line, built in 1814.

Although the decision was taken in August to construct a narrow canal throughout, the idea of a railway does not appear to have been completely rejected. In October, as a result of another report received from two members of the management committee and William Smith who had carried out a two-month tour of canals and railways elsewhere throughout the country, approval was given at a General Meeting in December to proceed with the construction of 'either a canal with inclined planes, or railroads, as was thought most expedient'. However, by mid-January 1795 it was generally agreed that 'a summit canal [presumably connected to the Lower Level by inclined plane] was preferable to railroads'. Although the site of the connection is not stated, the closest and most convenient point was at Combe Hay, between the three-mile point on the Lower Level and the high ground above in Blacklands Furlong (later Caisson Field). To settle these details, in April William Bennet (then still engaged with the neighbouring Dorset & Somerset Canal) assisted by William Smith, was asked to prepare the plan for the new summit level so that work could be put out to tender and a second bill for the necessary deviations prepared for submission to Parliament.

In the meantime the K&A Canal committee had become interested in Robert Weldon's caisson lock, and in July an agreement was reached with the S.C.C. committee to erect, as a joint experiment, a caisson lock on the S.C.C., and in August the site at the terminus of the summit level in Blacklands Furlong to connect the two levels was chosen. When William Smith's final deviation plan was deposited with the Clerk of the Peace a month later on 30 September, two alternative routes for joining the upper and lower levels are shown starting at Blacklands Furlong; one for a series of three caisson locks to join the lower level near the three-mile stone; the other for an inclined plane terminating below Rowley Bottom where it would join an extension of the lower level (to be raised by three conventional locks) from near the three-mile stone. On the Radstock line an inclined plane (but no caissons) is also indicated between a canal basin to the north of Twinhoe and the site of the later wharf at Midford Aqueduct.

*Fig.3* — The two intended routes for joining the Upper and Lower levels of the canal shown on William Smith's 1795 Deviations Plan, starting from Blacklands Furlong (plot 45). The dark pecked line shows the course of the Inclined Plane, joining the extension of the Lower Level between plots 49 and 58 near the three-mile stone. The lighter curved line shows the course of the Caisson Locks, located at A, B and C, also rejoining the canal at plot 58.



*Photograph: Terry Paget*  
**VOBSTER CROSS BRIDGE OVER THE DORSET AND SOMERSET CANAL — 1959**



*Photograph: Terry Paget*  
**VOBSTER CROSS BRIDGE — 2014**



Before the first shift of the day it was the duty of the Gas Man, appropriately dressed in heavy dampened clothing, to advance cautiously into the workings, carrying ahead of him a candle on a long pole, popping gas pockets. The coal produced was converted to coke in coke ovens, some of which survive. The gas and tar were burned off to waste, not sold as by-products. Children between 5 and 7 worked underground opening doors, boys between 7 and 14 hauled putts using the guss and crook, and 'men', anyone over 14, worked the vertical coal seams. The pumps at Vobster New pit were powered by water wheels fed by a leat from the Mells River. The coke was conveyed by tramway to the foot of an incline near the Vobster Inn, then hauled up by stationary engine to Vobster Cross where it was transferred to standard gauge railway wagons for conveyance to Seend.



**THE ORNAMENTAL LAKE  
with Mells Park mansion on the distant horizon**

some quarries. My uncle Bill worked at Mells Colliery at the time of the General Strike. On our approach to Newbury colliery (1799-1927), we passed a building which used to be an engine shed. Newbury had two beam engines, and one engine house survives. Its colliery also produced good coking coal, had coking ovens, and was for a while owned by the Westbury Iron Company. To increase production a second shaft was sunk at Mackintosh, increasing winding capacity and improving ventilation, with a fan installed to suck air down Newbury shaft and up Mackintosh. The mine still had no escape shaft, so one was dug at Luckington, with no winding engine, just ladders. In 1919 the winding rope broke, the men escaped up Luckington; but without the pumping effect of the below-cage tank, the pumps could not keep the mine dry, so the ponies were doomed and had to be shot.

From near the site of Vobster Breach, Shane had pointed out the line of the Dorset and Somerset Canal, emerging from behind the former Methodist Chapel and following the contour round the hill to the southern portal of Goodeaves Tunnel, now buried under a tip. As we passed between Newbury and Mackintosh collieries he pointed out where the tunnel northern portal had been, although it was no longer visible. We discussed the possibility that the tunnel may never have actually been cut, but one of our group said he knew people who claimed to have played in it as children.

I arrived home at quarter to two, very late for lunch, throwing in my hat first — then I entertained my dear wife with a long report of my exciting morning. She nodded and smiled. She had had a relaxed morning gardening.

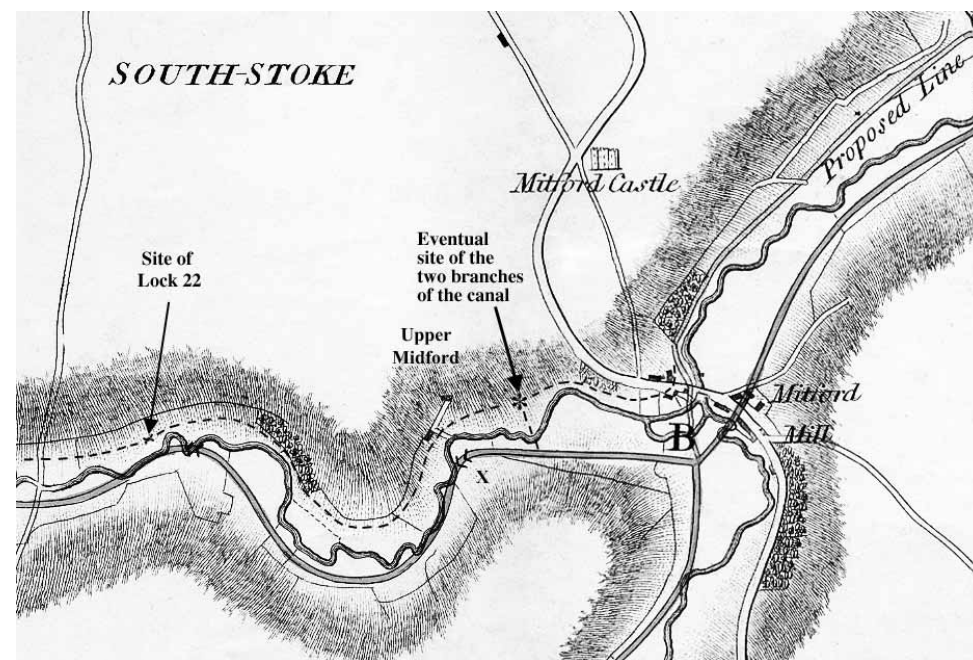
**TERRY PAGET**

Near the foot of the incline we overlooked an ornamental lake in front of Mells Park, giving us a glimpse of how the other half of society lived in 1870. As we ascended the route of the incline we had to pass through a field containing a herd of cows with very young calves. With dogs in our party we took great care not to approach too close to them.

At Vobster Cross we saw the Dorset and Somerset Canal bridge, still in good condition, but now with its arch filled in, not as I first saw it in 1959. There had been two standard gauge railway branches from Mells Road station serving several collieries, and latterly

Fig.1 shows the original planned course of the canal with locks at the lower level and the long tunnel (pecked line) avoiding the riverside. The upper line shows the course eventually chosen at a higher level, with a short tunnel at the Combe Hay cross-roads (B), terminating at Blacklands Furlong above Rowley Bottom near A, later site of the Caisson Lock.

More familiar is the course shown between Midford and Limpley Stoke. Since the site of the Dundas Aqueduct on the K&A canal had not yet been fixed, Rennie proposed two routes below Midford towards a possible canal junction; one on the south side of the Midford Brook; another marked 'Proposed line of Deviation' on the north side - the route eventually built. Here the route of the SCC was determined by the height of the K&A junction (about 40<sup>ft</sup> above the River Avon), which meant that the SCC would remain at a fixed level ('the Lower Level') for some distance westward until the floor of the Cam Valley had risen to the same height, at a point about 2½ to 3 miles from its entrance. From hereon locks had to be provided as the valley continued to rise before reaching the terminus at Paulton (about 135 ft). Rennie shows the first and lowest of these locks near Upper Midford, almost a mile further to the east of the one eventually built (Lock 22, just short of the 3-mile stone) on the opposite side of the stream, with its equivalent on the Radstock line below Twinhoe.



**Fig. 2 — DETAIL OF THE MIDFORD AREA FROM RENNIE'S MAP**

Fig.2 — Detail from Rennie's map, showing the lowest lock (X) at Upper Midford, on the south side of the Cam Brook. Also shown are the eventual sites of lock 22 and the junction between the two branches on the north side. From here the canal continued to Midford where it followed the course shown here as "Proposed Line".



## THE SOMERSETSHIRE COAL CANAL AND THE INCLINED PLANE

*Before reaching its final form the S.C.C. went through a lengthy 'evolutionary' process in which many variations in design were considered in the twelve years that elapsed between its inception in 1793 and formal opening in 1805. The sequence of steps in this process described by Kenneth Clew shows that the use of an inclined plane railway played an important part in this development, though not initially intended - nor finally adopted - as part of the permanent structure.*

Soon after the decision to build the canal was made in February 1793, John Rennie, assisted by William Smith, was employed to survey a feasible route between Paulton and a junction with the intended Kennet & Avon Canal near Limpley Stoke. Rennie's report, presented in September, included an engraved plan published under the title:

'Plan of the Proposed Somersetshire Coal Canal (With proper Rail Roads to communicate therewith) - From the Kennet and Avon proposed Canal - near Limpley Stoke - to near Paulton upper Engine ...'

The route shown on this plan is quite unfamiliar to us today. Here, most of canal runs closely along the side of the Cam Brook, sometimes crossing it to the south side, and gradually descends the valley by means of 17 conventional locks interspersed at regular intervals. A similar pattern is shown along the southern branch from Welton and Radstock along the Wellow Brook. A striking feature of the northern route is the inclusion of a ¾ mile long tunnel under Combe Hay village, between the Wellow road near the Cam Brook bridge on the west, and the Midford road below the 'Wheatsheaf' to the east. This not only avoided serious disruption to the village, but also to the landscaped parkland and ornamental lakes below Combe Hay Manor belonging to John Smith (later Col. Smith-Leigh), equerry to the Prince of Wales and an important supporter of the canal.

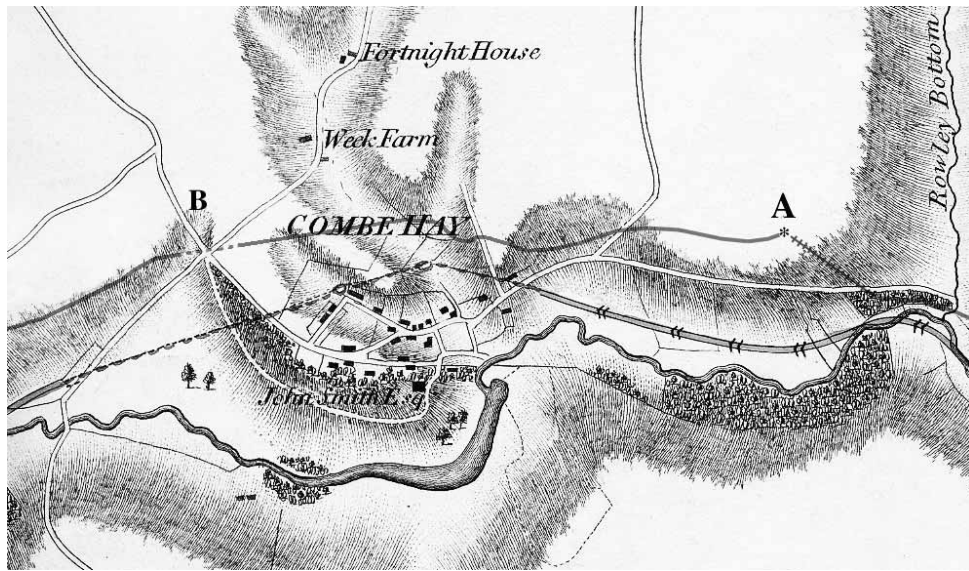


Fig.1 — DETAIL FROM RENNIE'S 1793 MAP AT COMBE HAY

## RESTORATION PROGRESS

*At the July 2014 Committee meeting of the S.C.C.S., a target date was set in July 2015 for some sort of public event, such as a small festival, to mark the return to navigation of the western end of the canal. This was intended to concentrate the minds of the Committee and drive the restoration plans from vague hopes via concrete proposals to positive actions. To those who have never been involved in organising a festival, a year may seem like ample time to get everything ready; but the planning for many festivals actually begins several years ahead of the opening date and, even then, finishes up with a nail-biting rush at the last minute. The festival, however, was only one part of the planning - there had to be a navigable canal to base it around and the Society wasn't really set up to undertake such a major project at such short notice.*

The excavation of the Dry Dock had given us many useful contacts among local landowners, entrepreneurs and contractors and had shown that we had the organising skills and determination to see a small project through to a successful outcome. Building on this, we contacted our previous contractor and enquired about the feasibility and cost of doing some excavation work at Terminus Bridge and in the area below Withy Mills colliery batch. The eastern wing walls of Terminus Bridge and the towpath shelf beneath it appeared to still be present, although not entirely undamaged. Preliminary investigations at Withy Mills with a mini-digger showed that the profile of the 'puddle clay', which had originally made the canal waterproof, was still visible to some extent, although no definite conclusion could be drawn about what sort of condition it was in or even if it had survived intact along most of its length.

On 5th September 2014, the first work began in earnest at Terminus Bridge. Some of the infill was used to create a 'bund' or dam across the canal between the drainage sluice and Paulton Basin. This not only held back the water from the work site, but also served as an alternative route for the footpath that ran across the canal at Terminus Bridge, which we were about to excavate. By placing the bund to the West of the drainage sluice, it meant that we were able to use the sluice to keep our excavations dry. As the digger cut away the bridge infill, down to what we thought was the floor level of the canal, the bridge-narrows walls which hadn't seen the light of day for many decades were gradually revealed. The infill contained a large quantity of good stone, some of it 'dressed', which was stockpiled on the uphill side of the site for future use. Thanks to the care and skill of the digger driver hardly any part of the historic stonework, much of which had lost its mortar, was loosened in the process. The only stones which fell out of the walls were those which would have fallen anyway, so the whole task of restoration will be much easier when we come to tackle it.



EXCAVATING TERMINUS BRIDGE





Two days later, Richard Hignett excavated the area of the stop planks at the western end of the narrows and discovered that the true floor level of the canal was a lot lower than we had first thought.

It wasn't until several weeks later that a Waterways Recovery Group work party spent a whole weekend digging out the infill by hand and confirmed that the narrows had been blocked by a 2 ft. high wall of rough mortared masonry, probably recovered from the bridge demolition, standing on the original clay bottom. This may tie-in with the apparently incorrect height of the sill of the Dry Dock, which appeared to have been built up in a similar manner. More research is needed to find out what happened here.



**STOP PLANK GROOVES AT TERMINUS BRIDGE**

Meanwhile excavation had been taking place in the area of the trial dig below Withy Mills Colliery Batch, where the canal was crossed by a land ownership boundary fence. Almost immediately the digger hit a substantial wall, only a few inches below the surface; by following this, the outlines of a massive curved structure emerged. Checking with a section of the Cruse Map (reproduced on Pages 12 - 13) revealed that there had been a narrows at this point and further careful excavation soon revealed a similar structure on the opposite side of the canal, both of them complete with stop plank grooves in the walls and joined by a wooden bedplate across the floor of the canal.



**EXCAVATION AT WITHEY MILLS STOP POINT**



**W.R.G. STONEMASONS REBUILDING WITHEY MILLS STOP POINT**



**STELLA AND DAVE FROM W.R.G. WORKING AS A TEAM TO SORT OUT STONES FROM THE SPOIL HEAP**

To be continued on Weigh-House 70





**WITHY MILLS COLLIERY WHARF**

The rebuilding of Withy Mills narrows was a task requiring specialist knowledge of stonemasonry and mortar work, which we were happy to leave to the Waterway Recovery Group. We provided an electric concrete mixer and generator; and an improvised water supply from the Cam Brook, thanks to the generous donation of a manually-operated water pump by one of our members — and didn't we work that pump hard to keep up a supply of fresh water to the stone-cleaning gangs! The mortar work has now come to a temporary halt due to the weather closing in, but we hope to resume it once we can guarantee a few rain and frost-free days. In the meantime, there are piles of freshly-cleaned stones, standing on tarpaulins to keep them clean, scattered all around the work site.



**W.R.G STONE CLEANERS AT WORK  
NEAR WITHY MILLS STOP POINT**

In the southern wall of the narrows, just to the West of the stop plank groove was a curious indentation shaped like the Greek letter Π. On close examination the remains of wooden uprights and a lintel could be seen still embedded in the stonework, the uprights being D-shaped in cross-section. The grooves they rested in were square in cross-section, with the gap between the wood and the stone being filled with mortar which had taken up the grain of the wood, as though the wooden pieces had been pressed into the grooves when the mortar was still soft. No plausible explanation for this feature has come to light and nobody has seen anything like it on other canals.



**THE STOP PLANK GROOVE AND THE Π-SHAPED FEATURE  
AT WITHY MILLS NARROWS**

The depth between the top courses of masonry and the wooden bedplate for the stop planks did not look the same as the depth of the same features at Terminus Bridge, so the digger driver loaned us his levelling equipment to make some definitive measurements. When a datum level, based on the surface of the towpath coping stones at Terminus Bridge, was transferred from to Withy Mills, we discovered that the tops of the towpath and the narrows stonework in the latter area were 2 ft. too low. Presumably the top courses of heavy coping stones had been 'robbed' from the narrows once the canal became redundant and the top of the towpath had later been bulldozed into the canal to fill it up and level-off the land.

Excavating eastwards from the site of Withy Mills Narrows revealed a flat-bottomed canal bed having 'battered' sides rising with a slope of about 1:2 (30°), but after a short distance, more masonry was found in the shape of a vertical wall forming the northern bank of the canal. This did not correspond to any feature marked on the Cruise Map, but later maps showed that it was the retaining wall of Withy Mills Colliery wharf. The batch of the colliery is still a prominent feature, spilling down the hillside towards the northern bank of the canal between Withy Mills narrows and the wharf. It appears that after the colliery was opened c.1840, a tramway was run down the eastern side of the batch with a branch running along the wharfside. At some time, the narrows was adapted to take a bridge giving communication between the northern canal bank and the towpath and the field boundaries were moved, so as to allow direct access from the wharf to the northern side of the bridge. This is a plausible explanation for the 'dog-leg' that still exists in the land ownership boundaries at this point.

Because it was now clear that the towpath was too low, there was no longer any necessity for the time-consuming task of removing the excavated spoil to the field below canal embankment, as it could be used to build up the towpath to its proper level instead. This considerably sped up the rate of progress and removed the need for a dumper, as the digger could reach far enough to drop the spoil directly where it was needed.

→ →





- Intake
- Timbury Basin
- Paulton Basin
- Drainage Sluice
- Terminus Bridge
- Withy Mills Stop Point
- West Dunford Stop Points
- East Dunford Stop Points
- Radford Colliery Wharf
- Dunford Farm track Bridge
- Site of later Withy Mills Colliery Wharf
- Tramway from Radford Colliery

CRUSE MAP (c1807) SHOWING THE S.C.C. FROM TIMSBURY BASIN TO RADFORD