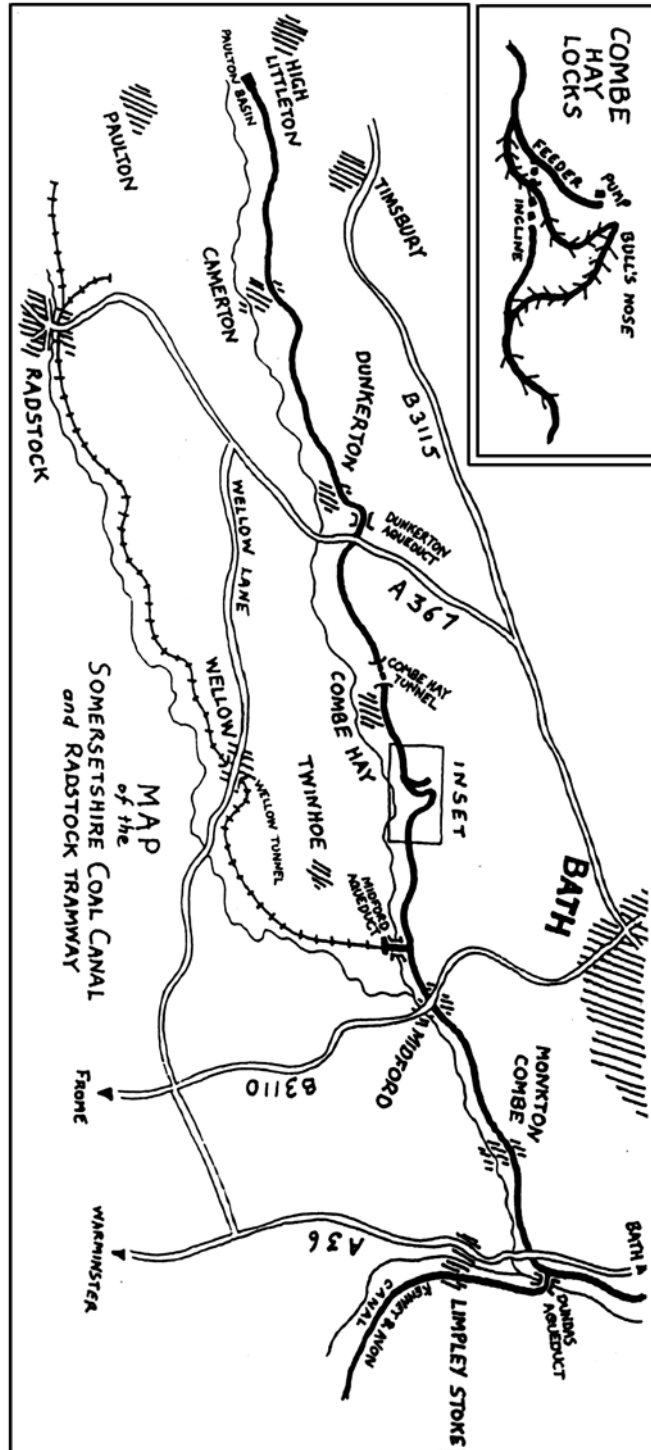


WEIGH-HOUSE

THE NEWSLETTER OF THE
SOMERSETSHIRE COAL CANAL SOCIETY



EXECUTIVE COMMITTEE

CHAIRMAN -- MIKE CHAPMAN

51, Newton Road, Twerton, Bath BA2 1RW
☎ 01225 426948 *E-mail: mike@chapman76.fsnet.co.uk*

SECRETARY – VACANT

TREASURER – DAVID CHALMERS

'Shalom' 40 Greenleaze, Knowle Park, Bristol BS4 2TL
☎ 0117972 0423

MEMBERSHIP SECRETARY – LAURIE GIBNEY

1, Hillcrest Close, Bristol BS48 2HP
☎ & Fax: 01275 798479 *E-mail: laurie@lgibney.freemove.co.uk*

WORK PARTY ORGANISER – BOB PARNELL

34, Wedgewood Road, Twerton, Bath BA2 1NX
☎ 01225 428055

PUBLICITY – VACANT

EVENTS ORGANISER – VACANT

MINUTES SECRETARY – PHILIP WEST

☎ 0117 968 6159

HISTORICAL ADVISOR – MIKE CHAPMAN

51, Newton Road, Twerton, Bath BA2 1RW
☎ 01225 426948 *E-mail: mike@chapman76.fsnet.co.uk*

PROJECT OFFICER – VACANT

NEWSLETTER EDITOR – ADRIAN TUDDENHAM

88, Mount Road, Southdown, Bath BA2 1LH
☎ 01225 335974 *E-mail (not HTML): sccs@poppyrecords.co.uk*

ARCHIVIST – ROGER HALSE

4, Westminster Gardens, Chippenham, Wiltshire SN14 0DF
☎ 01249 652846 *E-mail: roger@halsescs1956.fsnet.co.uk*

COMMITTEE MEMBER – DAVID FRY

14, Monkton Road, Hanham, Bristol BS15 3JG
☎ 0117 961 4687

The Somersetshire Coal Canal Society was founded in January 1992 with the aim:

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

The Society is aimed at those people who are interested in finding out more about the history of the canal, preserving what is still there and walking the parts that are still accessible to the public.

The Society does not aim to restore the canal, but to protect the remaining structures (Midford Aqueduct, Combe Hay Locks *etc.*) and line of the canal from decay, dereliction and vegetation.

Registered Charity N^o 1047303
Registered under the Data Protection Act 1984 N^o A2697068
Affiliated to the Inland Waterways Association N^o 0005276

MEMBERSHIP FEES
(as at 1st June 2003)
£7.50 (Family / Individual) £5.00 (Senior Citizen / Student)
£150.00 (Life) payable by lump sum or four annual instalments

Membership Application Forms are available from the Membership Secretary at:
1, Hillcrest Close, Nailsea, Bristol BS48 2HP ☎ & Fax: 01275 798479
E-mail: laurie@lgibney.freemove.co.uk

Society Website: <http://rtjhomepages.users.btopenworld.com/SCC2.html>

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

The Editor welcomes any 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 space is limited.

Please send articles and correspondence for the next edition of WEIGH-HOUSE to:
Adrian Tuddenham 88, Mount Road, Southdown, Bath BA2 1LH
☎ 01225 335974 *E-mail (not HTML): sccs@poppyrecords.co.uk*

Sunday 2nd May — 10:00

WORK PARTY — COMBE HAY LOCKS AND POUNDS

For further details please contact:

Bob Parnell ☎ 01225 428055

Sunday 16th May — 10:00

WALK – THAMES AND SEVERN CANAL — Daneway to Frampton Mansell / Chalford

Meet at Daneway village. Turn left of A419 (Cirencester to Stroud), signposted Sapperton then Daneway.

Note please do not park in the pub car park!

There is very limited parking (for 6 cars) at the bottom of the hill on the left before you cross over the canal.

For further details please contact Roger Halse ☎ 01249 652846

Sunday 6th June — 10:00

WORK PARTY — Location to be advised

For further details please contact:

Bob Parnell ☎ 01225 428055

Saturday 12th June — 19:30

SOMERSETSHIRE COAL CANAL SOCIETY

ANNUAL GENERAL MEETING — Followed by guest speaker T.B.A.

At Radstock Museum, Waterloo Road, Radstock.

Sunday 20th June — 10:00

WALK – THE PLANNED ROUTE of the DORSET & SOMERSET CANAL and its junction with the Kennet & Avon Canal

Meet at Bradford on Avon Station Car Park

For further details please contact Derrick Hunt ☎ 01225 863066 (Not after 9.00 pm please)

Sunday 4th July — 10:00

WORK PARTY — Location to be advised

For further details please contact:

Bob Parnell ☎ 01225 428055

WALKS:

These are all circular walks unless otherwise noted. You only need to arrange your transport to and from the meeting point. They tend to be in the form of detailed explanations of short sections of the canal and its relationship with the locality; and, as such, are less suitable for young children.

Dogs are normally welcome (except where indicated) and must be kept on leads at all times.

A collection will be made at the end of each walk to help raise funds for interpretation boards

WEIGH - HOUSE Nº 38

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EDITORIAL

I must begin with an apology to our Treasurer, David Chalmers: The previous edition of Weigh-House should have carried a leaflet which he had drafted, appealing for donations towards the considerable expenses of excavating in Caisson Field. This was somehow omitted during the hurly-burly of getting the magazine printed, but is now enclosed with this edition. I am sure you will agree that research of this type is well worth supporting.

The story of another stunning piece of research by Richard Hignett is revealed in this issue: Starting at Page 14, he tells how, after we had deduced the existence of a previously unsuspected canal feature, he located it from accurate measurements and eventually managed to get a photograph of it. This is one feature we shan't be showing to members on our walks, however, because it has been 16 feet under water for the last 200 years.

In the depths of winter, it is pleasant to pass the time by looking back to the balmy days of summer. Our Navying Notes do just that, by recalling how we spent three idyllic work parties in a warm and secluded valley on the Southern Branch of the S.C.C., tidying up Stony Littleton Aqueduct. This was the first time we had done any work on the Southern Branch, but now that parts of it are due to be opened up by a nearby cycle route, there may be more opportunities in future.

ADRIAN TUDDENHAM – Editor

February 2004

CHAIRMAN'S COMMENTS

Referring to the article on Niall Allsop's walk in the last issue of the Weigh-house, it has been pointed out that the passage describing the Bridge and Milestone at Tucking Mill could be interpreted as indicating that these features were accessible to the public. This is certainly not the case. They in fact lie on private property and members are advised to adhere strictly to the public roads and footpaths whenever visiting the canal.

Since most of the canal has been transferred to private ownership since its closure, access to its existing remains is naturally restricted, but one of the advantages of the Society is that formal arrangements can be made individually with owners so that private visits can be made by its members. Similar agreements can also be made for work to be carried out by the Society to preserve remains of the canal from decay and to provide interpretation for the public at large.

It is therefore worth pointing out that no effort has been spared by the Society over the years in establishing a good relationship with local owners, a process which we hope will continue, and indeed, without it the work of the Society would be extremely limited.

MIKE CHAPMAN — Chairman

ANNUAL GENERAL MEETING

Notice is hereby given that the next Annual General Meeting of the Somersetshire Coal Canal Society will be held on Saturday 12th June at the Radstock Museum, Waterloo Road, Radstock, commencing at 7.30 pm. Nominations for election to the Executive Committee must be made in writing and be in the hands of the Chairman (acting as Secretary while the post is vacant) two weeks prior to the meeting.

NEW MEMBERS

The Society welcomes the following new members:

Mr. R. Newland	Feckenham, Redditch
Dr. P. S. Cossham	Weston Super Mare
Ms. R. M. Macdonald	Wellow, Bath

DONATIONS

The society wishes to thank the following members who have generously made donations:

Mr. & Mrs .A. D. Wadley	Keynsham
Mr. & Mrs. D. G. Whitehouse & Family	Canterbury
Ms. S. Batchelor & Mr. A. Shamp	Dunkerton
Mr. G. A. Pickford	Chilcompton

DATES FOR YOUR DIARY

WORK PARTIES

Venues may change at short notice, always check with Bob Parnell before turning up.

Friday 1st March — 19:30

DORSET & SOMERSET CANAL TALK — Frome Museum

For further details please contact:

Derrick Hunt ☎ 01225 863066 (not after 9pm please)

March, April and May 2004.

DORSET & SOMERSET CANAL EXHIBITION — Frome Museum

Museum open most weekdays from 10am to 2pm.

Sunday 7th March — 10:00

WORK PARTY — BALANCE LOCK TRIAL SITE, near Mells

For further details please contact:

Bob Parnell ☎ 01225 428055

Derrick Hunt ☎ 01225 863066 (not after 9pm please)

Sunday 21st March — 10:00

WALK – COMBE HAY LOCKS AND CAISSON SITE

Meet at The Avenue, Combe Hay

For further details please contact Mike Chapman ☎ 01225 426948

Sunday 4th April — 10:00

WORK PARTY — COMBE HAY LOCKS AND POUNDS

For further details please contact Bob Parnell ☎ 01225 428055

Sunday 18th April — 10:00

WALK – STROUWATER CANAL — Eastington to Stroud

Meet at 'Blunder Lock', Eastington. Park at **either** the lay-by on A419 (Stroud to M5) on left before the Eastington roundabout, **or** at the roundabout turn left, then first left (No Through Road) and park at visitor parking at end of road.

For further details please contact Roger Halse ☎ 01249 652846 →

The South West Group of the **Railway & Canal Historical Society** cordially invites members of the SCCS and the IWA to join them on **Saturday April 17th** on a visit to Sharpness Docks, the Ship Canal and the route of the branch canal to Cambridge.

The walk will be about seven miles.

For further information contact: Alan Richardson ☎ 0117 940 0311 as soon as possible.

When I entered the old water treatment works and started battling through the brambles his disbelief was complete. I think the only reason he followed me was to see how I was going to talk myself out the wild goose chase I had evidently brought him on. I then lifted the cover on the well and he realised I was serious. Using a wire caving ladder he was able to enter the well and photograph the adit.



Photograph: John Cheriton

THE INTERIOR OF THE FLOODED ENGINE ADIT LOOKING NORTHWARDS

Picture taken with an underwater camera.

With this evidence there was finally no doubt left. We had found the adit, knew where it went, what level it ran at and what size it was. The Bath Chronicle archives held an advertisement for a contractor to dig the adit 4 feet high and 2 feet wide. In the event, it was actually constructed 3 foot 4 inches high and 3 foot 4 inches wide!

A very satisfactory result after some fascinating detective work.

Epilogue:

Remember the third suspected access shaft? There is no evidence of it in the construction records of the railway yet the building of the embankment almost totally obscured it. Presumably the navvies chose to ignore it and get on with the job. For the next 50 years the railway ran over a potential weak spot, the back filling of the access shaft carrying loads it was never designed for, a collapse could have disturbed the line leading to a derailment yet the canal engineering of a hundred years before (200 years old now) held and presumably still holds to this day. The Somersetshire Coal Canal has a lot to be proud of.

RICHARD HIGNETT

Would-be explorers are warned not to attempt to gain access to any of these structures — not only are they all on private land, but to enter them without proper training and equipment would be extremely dangerous

CLARE PHILIPS

We were saddened to hear of the sudden death of Clare Philips, one of the stalwarts of our walks.

She and her husband, Harold, were pharmacists, living in Farmborough and working in Bristol, and had long had a love of walking — they discovered the canal through coming across the locks at Combe Hay. Upon Harold's retirement they both joined the Society and for six years Clare hardly missed a single walk.

Her interest and contributions to lively discussions about the canal will be sadly missed.



LETTERS TO THE EDITOR

Dear Adrian,

Having just been on the final walk in the series designed to cover the entire canal (based on Niall Allsop's book), I would like to thank Mike Chapman, and others involved in their organisation, for some excellent excursions. I have only come to know the SCC in the last couple of years and, while I have managed to track down various publications, there is no substitute for being on the ground and able to share the knowledge and experience of Mike and other society members. I believe that even the "old hands" - including Mike himself - discovered something new on nearly every walk. There are, of course, a number of stretches where there are few physical remains of either canal or railway, but there was always some fascinating information on the history of the landscape to be told, from the Neolithic through to the 21st century. Mike's reports in Weigh-House will give a flavour of these walks, but I am reminded of a line from Shakespeare's Henry V Agincourt speech, "And gentlemen in England, now abed, shall think themselves accursed they were not here"!

DAVID HEATHCOTE

Dear Adrian,

Another canal with "coal" in the title.

I have sometimes heard it said that the SCC was the only canal with the word "coal" in its title. I now have reason to believe this is not correct. Here is a quotation from "The Illustrated History of Canal & River Navigations" by the late Edward Paget-Tomlinson:

"The Flint Coal Canal — Promoted by a group of copper, iron and lead mining magnates including Thomas Williams of the Parys copper mine on Anglesey, the Flint Coal Canal was surveyed by William Jessop in 1785 to run from the Dee to Greenfield and take 100 ton ships, Greenfield and district being a centre of copper and brass smelting and coal and lead mining. An Act was obtained in 1788 but no canal work was done."

DERRICK HUNT

WALKS ALONG THE CANAL

Continuing our update of the walks described in Niall Allsop's book "The Somersetshire Coal Canal Rediscovered - A Walker's Guide", four more routes were reviewed last year between Midford and Paulton Basin.

Midford to Combe Hay (Walk 2 in Niall's book)

This route, which has not changed, still provides one of the best walks along the canal and continues to gain popularity with other walkers now that so many new improvements along the way have occurred since Niall's book was written. The old towpath which starts opposite the Hope & Anchor and continues along the ornamental garden, for instance, has been properly surfaced and fenced off by B&NES Council, and beyond this, of course, Midford Aqueduct now stands fully restored - a situation that could hardly be dreamed of ten years ago! Another marked difference can be seen in the surroundings of locks 11 to 15 which are now regularly cleared of vegetation by the Society's Work Parties, presenting a grand site to walkers along the adjoining pathway. Further up, the clearance of Lock 1 also means that the summit junction can at last be seen clearly from the road at the driveway entrance to Caisson House.

Our knowledge of this section has similarly improved, particularly concerning the adit under the lock flight [see P 14] which now provides a better understanding of the water supply system to the pumping engine. We also happen to know that the 'mound' of debris beyond the 2½ mile stone, mentioned by Niall, was not created by boatmen, but by Bath Corporation in the 1890s who were looking for somewhere to deposit their surplus household waste. The mystery of the raised towpath along this stretch of the canal has also been cleared up as a result of information which has since come to light about the contractor's railway which was built over it during the construction of the Camerton & Limpley Stoke Railway.

Combe Hay to Dunkerton (Walk 3)

The first change to Niall's walk from Combe Hay occurs quite near the start, at Combe Hay Aqueduct. After passing through the aqueduct tunnel, it was previously necessary to make a long detour northward along the stream towards Fortnight Farm before rejoining the line of the canal at Combe Hay Tunnel. Quite recently however a new footpath has been opened up at the northern exit which climbs up the side of the adjoining railway embankment, and it is now possible to actually stand on top of the aqueduct! From here the footpath continues along the line of the canal westward (along the infilled railway cutting) which not only provides a shorter route, but also a glimpse of the eastern portal of Combe Hay Tunnel where the footpath now joins the Wellow Road.

Another important change, at the other end of this walk, also concerns one of the canal aqueducts. The façades and parapets of Dunkerton (big) Aqueduct at Severcombe, which Niall describes as 'succumbing to the ever-encroaching ivy', have now been completely cleared by the Work Parties and the structure now presents a spectacular sight from as far away as the top of Peasedown Hill although, ironically, the walker still has to search around to find the best angle to view it from the adjoining main road.

On this occasion we took the opportunity of following Niall's return route along the bottom of the valley, past Dunkerton Church. This unfortunately does not provide any clear views of the canal, but was certainly a more pleasant journey, following the riverside, than walking back along the road.



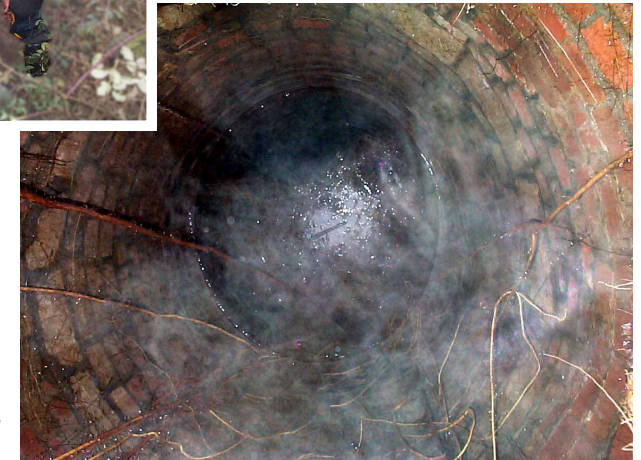
It appeared that the water company had once drawn water from the old canal adit to supply the local houses, but it was obvious that this facility had long been redundant. We later discovered that water is now supplied by pipeline from Peasedown or Radstock.

Further investigations around the site proved fruitless. Old gates were pulled from the brambles, considerable blood was spilled, but no treasures were discovered so we abandoned that approach and tried to find the adit on the other side of the water treatment works compound. There were no signs and as a last resort I climbed back into the compound and started treading down brambles from the other side. After a few feet I thought I saw something, it looked like a concrete well sticking out of the ground with something on top. More brambles, more blood (why hadn't I thought to bring a slasher) and finally I was on top of a covered well. It had a fibreglass lid which soon came up to reveal a slightly oval shaft full of water, measuring about 5 feet by 5 feet 6 inches, in good condition and of unknown depth. This was apparently the source of the water flowing over the gauging weir beside the khazi — and it was right on the line of the adit. Further investigations were obviously called for.



Above:
**A RATHER WET
RICHARD HIGNETT
DISCOVERING THE WELL**

Returning to the site, a caving helmet with a waterproof headlamp was lowered down the well on a rope. The water was about 16 feet deep and crystal clear. As the lamp slowly revolved at the bottom, the light illuminated the sides of the well but failed to reflect from any well walls in the direction of Engine Wood. This missing segment of wall could have been where an adit tunnel

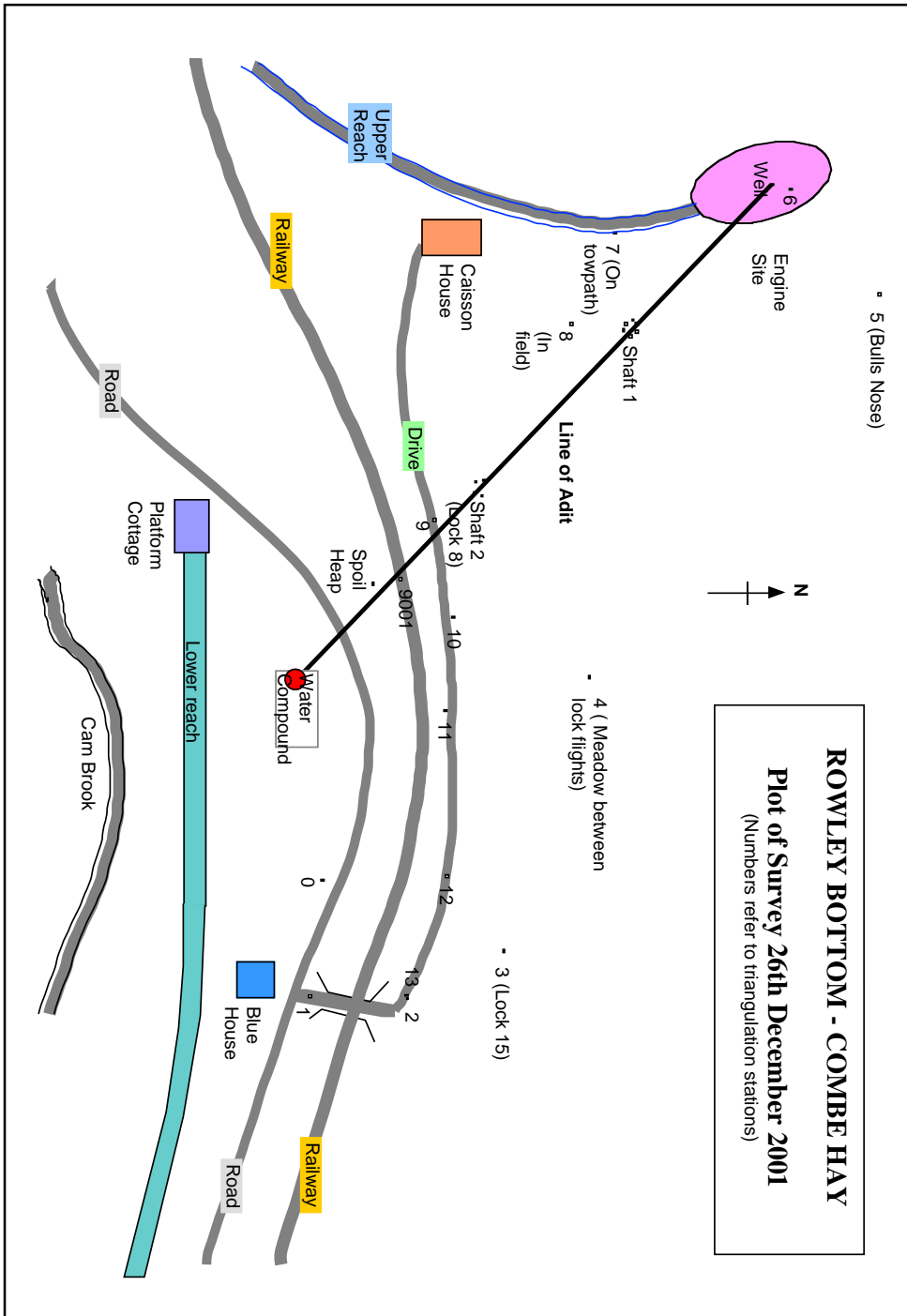


Right:
A VIEW DOWN THE WELL

entered the bottom of the shaft. All appeared to be fitting together very well. With the height readings from our previous day's survey and the research work we had done in the Bolton and Watt archives in Birmingham, we were able to compare the level of the bottom of this well with the level at the bottom of the well in engine wood - they were the same !

The services of a very experienced diver were then procured. As we drove to Combe Hay he became more and more sceptical as he couldn't see any signs of the water he was being asked to dive into.





COMBE HAY AQUEDUCT TUNNEL
 Showing a junction of the original canal structure with a later construction, probably when the embankment was widened for the railway



DUNKERTON 'BIG' AQUEDUCT AT SEVERCOMBE — December 2000

Dunkerton to Camerton (Walk 4)

Following Niall's route below the hamlet of Withy Ditch, we were able to examine a small brick pump-house, now abandoned, which is not mentioned in his book but marks the site of one of the few large springs that the canal was allowed to use to supplement its water supply. It was known that, after the



HYDRAULIC RAM AT WITHYDITCH

closure of the canal, the bed was filled in at this point and the pump-house erected by a local water company who had acquired the spring, but we were surprised to find that the water had been raised by means of an hydraulic ram, remains of which still survived inside the building.



MAKER'S PLATE

Continuing up the lane to Tunley, a tramway sleeper-block was also spotted in the garden wall of a cottage there. We were unable to ascertain

where it came from, but the tramway nearby which linked Hill's Coalworks to the canal immediately came to mind. Indeed, the footpath further on not only crosses the line of the tramway but provides an excellent view of the site of the canal wharf, now hidden under the turf.

To the west of Stone Edge Lane, the footpath follows the line of the railway which itself runs alongside a well preserved stretch of the canal bed, noted by Niall, leading to Sellar's Stile. This whole section has now been cleared by the Work Parties; and is now far more attractive than the alternative of battling along the parallel route of the railway footpath.

Camerton to Paulton Basin (Walk 5)

A disappointing feature of this route is the new housing which has been built next to the canal bed below Camerton Old Pit Batch, together with the removal of the old church room. This was brought about by retrospective planning permission, granted before current restrictions were introduced for historically sensitive sites. Fortunately, most of the canal bed seems to have survived. It is also worth noting here that the Batch, or spoil heap, which has been adopted as a nature trail, now has a good system of footpaths which provide an interesting alternative return route to Wick Lane via the site of the old colliery railway sidings.



**A REFLECTOR STATION
(Near the Bull's Nose)**

The entire survey covered a distance of about 1 kilometre and, at the end, the vertical discrepancy was 45mm and the horizontal discrepancy 85mm. This represented an accuracy of about 1 in 12,000; which was 'adequate', rather than 'good'. (1 in 100,000 is achievable with care — but we had been working very quickly.)

With this result plotted we found we were able to draw a straight line from the engine well through two of the intermediate shafts and the suspected third shaft on the railway embankment. By continuing this line it would give us a good idea where the entrance to the adit should be, in the valley of the Cam.

Early the next morning, by reference to the corners of the water treatment works in the valley, I quickly found an entrance to an adit between the water treatment works and the Cam Brook. "But there's water coming out of it, not going into it" said Adrian. "I can't help that, that's where it is" I replied. Obviously the adit had been dug below the water table and, when the pump ceased to work in Engine Wood, water had accumulated until it flowed out of the adit.

We then followed the line of that adit back towards the edge of the valley, where we found a break in it as a result of a collapse. Water was escaping from here adding to the general confusion of the site but a discussion between Adrian and myself and we soon had a consensus about the nature of the features we were finding. The line took us back into the water treatment works compound where there was a suspicious brick structure, which we had previously seen and christened the 'khazi' on account of its architectural features.

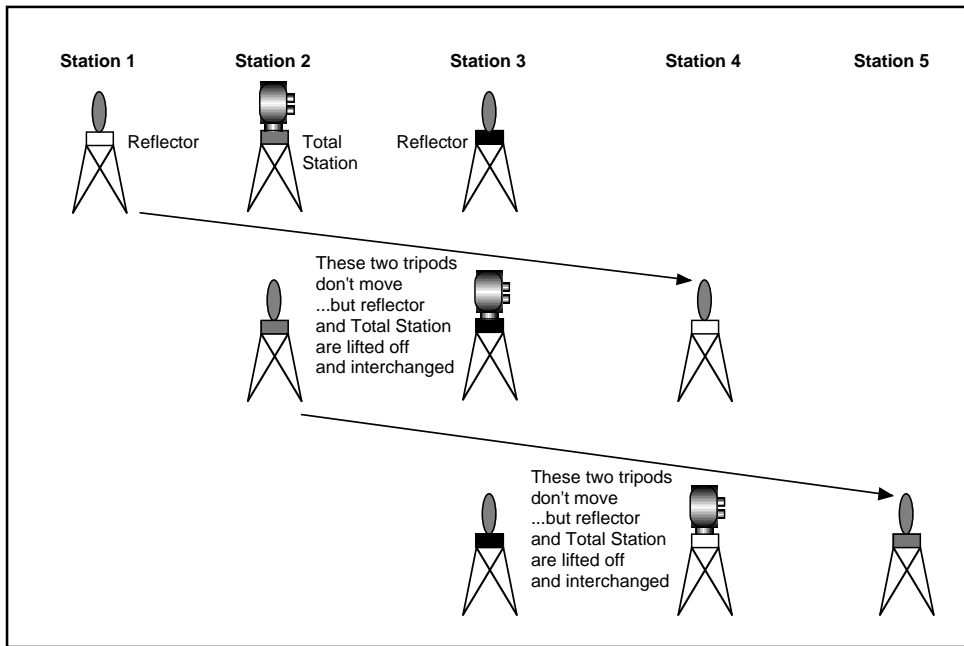
The khazi had water at the bottom, about 3 feet down, but did not appear quite right as part of the adit, there was no sign of the water actually flowing and it wasn't exactly on the line as far as we could determine. Alongside the khazi were some concrete slabs. It wasn't long before my curiosity was satisfied by lifting them. Underneath was a large volume of water, flowing along the adit through a gauging weir (a weir installed so that, as the amount of water flow increases, the level rises: by correlating one with the other, it is possible to calculate the flow rate at any time simply by measuring the level) all in a relatively new brick-lined channel. The khazi had been the gauge house where these levels were measured.



THE 'KHAZI'



The back tripod was then "leap frogged" forward to become a new front one. The other two tripods were left accurately in position, but the 'total station' was moved forward one leg to what had been the front tripod (now in the middle) and the middle reflector was moved to the back. This process gave us a new set of three positions, two of which were already known and one which could be plotted relative to them. (...and the 'total station' was once again in the middle of two reflectors)



HOW THE SURVEY STATIONS 'LEAP-FROG'

	A	B	C	D	E	F	G	H	I	J
1										
2	At	To	Degrees	Minutes	Seconds	Degrees	Angle	Ave. Angle	Corr. Angle	WCB
3	1	0	0	0	4	1.1e-3				276
4	2	86	2	4	8.6e+1	8.6e+1				2.0e+0
5	0	0	0	18	0.005					
6	2	86	2	6	86.035	86.03	8.603e+1			
7	2	1	0	0	0	0				
8	3	151	35	24	151.59	151.59				3.3e+2
9	1	359	59	56	3.5e+2					
10	3	151	35	40	1.5e+2	1.5e+2	1.515e+2	1.5159e+2		
11	3	2	0	0	2	5.5e-4				
12	4	133	57	42	1.3e+2	1.3e+2				2.8e+2
13	2	359	59	58	3.5e+2					
14	4	133	57	42	1.3e+2	1.3e+2	1.339e+2	1.3396e+2		
15	4	3	0	0	0	0				
16	5	199	19	30	1.9e+2	1.9e+2				3.0e+2
17	3	0	0	0	8	2.2e-3				
18	5	199	19	34	1.9e+2	1.9e+2	1.993e+2	1.9932e+2		
19	5	4	0	0	2	5.5e-4				
20	6	102	56	36	1.0e+2	1.0e+2				2.2e+2
21	4	359	59	56	3.5e+2					
22	6	102	56	30	1.0e+2	1.0e+2	1.029e+2	1.0294e+2		
23	6	5	0	0	2	5.5e-4				
24	7	116	8	46	1.1e+2	1.1e+2				1.6e+2
25	5	0	0	0	0	0				
26	7	116	8	46	1.1e+2	1.1e+2	1.161e+2	1.1614e+2		
27	7	6	0	0	0	0				
28	8	129	41	48	1.2e+2	1.2e+2				1.1e+2
29	6	359	59	50	3.5e+2					

PART OF THE SPREADSHEET USED TO CALCULATE THE ADIT LOCATION

This process was continued up the valley to engine wood where the position of the well was fixed relative to my evolving grid by using a mobile reflector on a short pole. We then continued through the fields picking up the two intermediate shaft positions, the supposed third shaft position, then down alongside the railway until we arrived back at the road, finally setting up a tripod exactly over the nail which marked our starting position.

The whole job was completed in a day, which is very fast for this type of work, then we retired to Adrian's computer to determine the accuracy of the work. All the distances were converted into eastings and northings, (a bit like latitude and longitude) and the process continued until I had the coordinates of every point we had visited, including the return to the starting point. Any errors would show up as a discrepancy between the first and last measurements of the starting point.



MIKE CHAPMAN WITH RESIDENTS OF TUNLEY EXAMINING A STONE SLEEPER BLOCK

interpretation board. No firm explanation has yet been found for the 'lock-like chamber' mentioned by Niall which can still be made out near Mill Lane, but we suspect that it is the seating for the swing bridge which existed near this site when the canal was first built.

The Paulton and Timsbury Basins also continue to be 'developed' by the owners (as a wild-fowl pond) which regrettably alters its former 'industrial' appearance. The retaining walls of Paulton Basin have been removed, for example, and the side of the canal bed along the approach to the terminus has been filled in. However the area is still accessible by the old network of footpaths, and various details survive. One of these, discovered since Niall wrote his book, is the water gauge which controlled the water supply into the canal at the western end of the terminus.

Returning to Camerton along the towpath, further new housing development has taken place at the bottom of Red Hill, and part of the line of the canal next to the road is now the site of an entrance drive. Some effort was made to preserve the surviving parapet wall of the bridge which carried the road over the canal, but it is increasingly difficult to envisage the character of this area when the canal was still in operation.

MIKE CHAPMAN

Mike's next walk is on Sunday 21st March and will offer a rare opportunity to see the upper lock flight at Combe Hay, the site of the recent Caisson dig in Caisson Field, the top of the Inclined Plain, the sites of the adit construction shafts and many other important features relating to recent discoveries. — This is one you mustn't miss.

NAVYING NOTES

Stony Littleton is probably the least well-known aqueduct on the canal. Tucked away in a small combe on the southern arm, between Single Hill and Wellow, it is well hidden and can only be visited with the permission of the landowner. It is a strange sight because only the North face is visible, the southern side having become merged into the embankment constructed by the Somerset & Dorset Railway. The aqueduct spans a small stream, but inside the depths of the archway, the stream disappears into a culvert which was built by the railway company to take it underneath their embankment.

The visible face of the aqueduct has been badly overgrown for years, in fact there is a picture of it in Niall Alsop's book, taken in the 1980s, showing it was almost hidden beneath a heavy mantle of ivy. On the north-western corner, one of the buttresses had been invaded by the roots of a tree and had partly collapsed.

Our first task on the site was to remove the ivy right across the northern face. The stonework was so fragile and the ivy so firmly attached, that a good pull might have brought parts of the walling down around our feet. With a set of ladders and a variety of cutting tools, we carefully started on the delicate task of chopping out the woody roots and unravelling the twisted stems. It was extremely slow painstaking work — the urge to just give it a good tug was almost irresistible at times — but we managed it with neither damage to the stonework ...nor to ourselves.

The crumbling buttress had become so unstable that it wasn't safe to be left standing. The tree roots which had firstly wrenched it apart then bound the crumbling remains together, were now beginning to rot and threatened to allow the pile of loose stones to fall. With regret, we decided it had to be pulled down. Once more we were glad that Richard Hignett had brought his Land Rover; and, with a strong rope, the tree was soon pulled clear allowing the stones to be stacked safely, awaiting some future restoration project.

The area surrounding the northern face had to be cleared of undergrowth and this provided the fuel for yet another of our enormous bonfires. Around about this time, a swarm of bees began to take exception to our activities, but a change of wind direction (and bonfire smoke direction) soon gave them other things to think about and we had no more trouble from them.

The top of the parapet was in a dreadful state, with stonework and ivy roots all mixed up in equal proportions. We inflicted as much damage as possible on the ivy, but had to leave a lot of it in place. Some further work will be needed here in future but we have been told there are no herbicides which will destroy ivy - so if anyone knows of a way to kill it safely, would they please contact Bob Parnell.

Two large trees were in danger of damaging the eastern side of the parapet, so with the landowner's permission, we felled them. This time it would have been difficult to get the Land Rover where it could pull in the required direction, so a rope and pulley system was rigged up, so that a team of willing hands could provide the necessary guiding force.

The plank bridge across the stream and rope swing from the trees told us that this secluded and idyllic valley was used as a playground by the landowner's grandchildren. It is hard to think of a more appealing spot for children to play during their summer holidays. We enjoyed our Sunday playtimes too and are most grateful that we were allowed share this delightful spot.

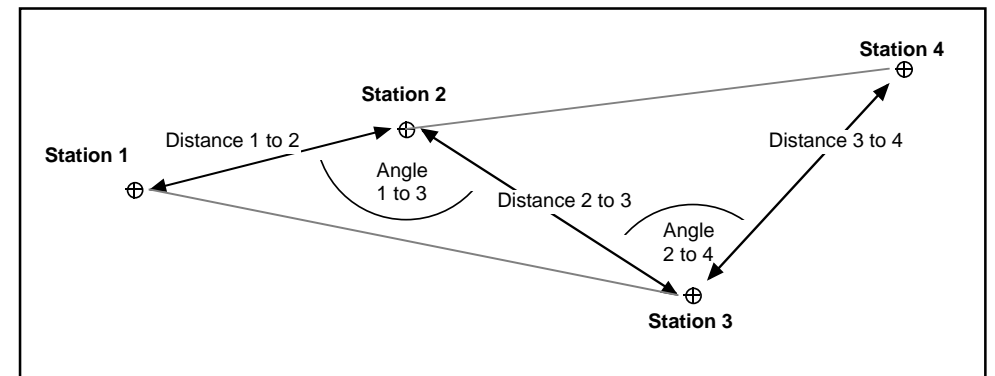
The centre pages (12 - 13) carry more pictures of our work on this site, which was spread over three work parties between July and November 2003



RICHARD HIGNETT WITH THE 'TOTAL STATION' AT LOCK 15

Readings were then taken first to one reflector then the other. This gave me:

- 1) Horizontal distance between the reflectors and the 'total station'
- 2) Change in height between the total station and each reflector
- 3) The horizontal angle between the two reflectors



PLOTTING WITH TRIANGLES FROM A SERIES OF 'STATIONS'



DISCOVERING THE PUMPING ENGINE ADIT IN COMBE HAY

The question of where the pumping engine in Engine Wood drew its water from has exercised many minds over the years. There is no plausible explanation in Kenneth Clew's book and none of the documents unearthed recently sheds any further light on the matter.

It is quite clear from Boulton & Watt's plans, now held in the Birmingham Central Library, that the lift of the pump was designed to be 135 feet. This rules out Lock 10, which was once suggested as a possible source; although it is very near to the engine, it is only about 60 feet below it; and the pump would not have been so extravagantly over-designed. In any case, drawing water from part-way down the lock flight would deprive the lower locks of their water supply. To draw water from the bottom lock would have required a very long underground adit and there was no evidence to suggest any kind of 'draw-off' structure had ever existed below Lock 22.

In Weigh-House No 30 we left Richard Hignett puzzling over a number of features, all in a line, which might have marked the course of an underground adit which could have fed water from the Cam Brook, for instance. This seemed like a strong possibility because the height difference between the brook and the engine was around 135 feet. There was also a heavily silted-up section of the Lower Reach, now forming the garden of Inner Meadow Cottage, which could have been used as a silt settlement pond for the engine water supply after ceasing to convey boats to the inclined plane.

Richard takes up the story:

If there had been an adit of any length, it was very unlikely to have been dug only from the ends; that was why I had endeavoured to find signs of an intermediate shaft on the surface. Not only did we find evidence of one intermediate shaft but a second was also quickly discovered and later a suspicious bit of embankment adjacent to the railway line suggested, perhaps, the presence a third intermediate shaft.

Having discovered the probable line of the adit on the surface, the opportunity presented itself to determine its location more accurately by using modern survey techniques. The intention was to survey the site of the well in Engine Wood, the two intermediate shaft sites and the possible shaft site in the railway embankment. Once these were plotted, by continuing the straight line on which these positions would probably be found to lie, the site of the entrance to the adit in the valley should readily become apparent.

A full topographical survey which could be linked to an Ordnance Survey map would have taken many days to complete, but I was able to simplify the process by just working from a single local reference point. The corners of the old water treatment works in the valley were used to locate a starting point for the survey (a nail driven into the road near the site of Lock 16) and everything was measured from there.

With Adrian as my assistant and equipment courtesy of Scott Wilson Railways, my employer, we started the survey on 26th December 2001. It was a sharp wintry day; cold, frosty and clear - and working in such conditions in a beautiful valley was idyllic. We progressed at great speed, setting up three tripods to form an elongated triangle. The two end tripods were fitted with reflectors, the centre tripod carrying the 'total station': an electronic theodolite with distance measuring equipment added. I can hardly bear to think about the value of the kit I was responsible for that day!



ROPES AND PULLEYS TO PULL THE FALLING TREE IN THE RIGHT DIRECTION



**INSIDE THE AQUEDUCT ARCH
THE CULVERT UNDER THE RAILWAY EMBANKMENT**



CLEANING STONY LITTLETON AQUEDUCT — Summer 2003

Photographs: Adrian Tuddenham