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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

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MEMBERSHIP

Membership Application Forms are available from
the Membership Secretary, Steve Page,
36, Lower Whitelands, Radstock, Bath BA3 3JW
☎ (01761) 433418 *E-mail:* 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>.

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

- Sunday 8th January —10:00
WORK PARTY — Location to be advised
 For further details please contact: *Adrian Tuddenham* ☎ 01225 335974
- Sunday 15th January —10:00
WALK — CHURCHILL BRIDGE TO CLEVELAND BRIDGE
Meet: Churchill Bridge, Bath.
 For further details please see website or contact: *Mike Chapman* ☎ 01225 426948
- Thursday 19th January — 19:30
SOCIAL EVENING — THE CAMERTON BRANCH RAILWAY
by Roger Halse
Meet: The Radstock Working Men's Club.
 For further details please see website or contact: *Steve Page* ☎ 01761 433418
- Sunday 5th February —10:00
WORK PARTY — Location to be advised
 For further details please contact: *Adrian Tuddenham* ☎ 01225 335974
- Thursday 16th February— 19:30
SOCIAL EVENING — T.B.A.
Meet: The Radstock Working Men's Club.
 For further details please see website or contact: *Steve Page* ☎ 01761 433418
- Sunday 19th February —10:00
WALK — CLEVELAND BRIDGE TO GROSVENOR BRIDGE
Meet: Cleveland Bridge, Bath.
 For further details please see website or contact: *Mike Chapman* ☎ 01225 426948
- Sunday 5th March —10:00
WORK PARTY — Location to be advised
 For further details please contact: *Adrian Tuddenham* ☎ 01225 335974
- Thursday 16th March— 19:30
SOCIAL EVENING — T.B.A.
Meet: The Radstock Working Men's Club.
 For further details please see website or contact: *Steve Page* ☎ 01761 433418
- Sunday 19th March —10:00
WALK — CHURCHILL BRIDGE TO SYDNEY GARDENS
Meet: Churchill Bridge
 For further details please see website or contact: *Mike Chapman* ☎ 01225 426948

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

WEIGH - HOUSE N^o 71

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EDITOR'S NOTES

One of the Society events during the Summer, as part of the William Smith celebrations, was a visit to Rugbourne Farm House. A large group turned up and we were given free run of the building by its owners. We knew the estate had a long and interesting history, so we asked Mike Chapman if he would research it — an article based on the results of his researches, and some photographs taken during our visit, can be found beginning at Page 6 of this issue.

Once again this year we played host to a weekend work party of the Waterway Recovery Group; initially this was planned to only occupy one weekend, but it extended to two and then continued with our own work parties for a further three weeks. The favourable weather and the enthusiasm of our members meant that we completed far more work than we had ever hoped could be done this year — but it also meant that your Editor was so tied up in work party organisation that there was no hope of ever getting an issue of *Weigh-House* completed. The article beginning at Page 12 shows the extent of the work we have undertaken this year, but there is more planned and we need a volunteer Work Party Organiser to offer to take some of the load off me.

ADRIAN TUDDENHAM

CHAIRMAN'S NOTES

Welcome to the latest edition of Weigh House.

We remain a society in transition; from having been one primarily interested in the history of our canal we are now moving forward towards one that is actively reinstating the canal to beneficial use as a recreational resource; this means, of course, eventual restoration to navigation. This will be a long process, but in the meantime there are many other ways in which the canal can benefit the communities around it without undermining our long term objective.

To that end I am pleased to report the role of two 'activists' (for that is the right word), Shelagh Hetreed and Ruth Eversley, who have arranged for the Society to be represented at many local events and have also implemented an educational package that, as I write, is being used by local groups to inform and enthuse children about the S.C.C.. This brings interest to the next generation: the ones who will take care of the Canal when those of us at the head now have retired or moved on to the celestial waterways. It is an adage that to thrive, the S.C.C.S. must be seen by the community as "a good thing" and Shelagh and Ruth are making that adage come true.

Elsewhere, Bath and North East Somerset Council has commissioned a study to look at the navigable waterways within its area, which are becoming increasingly popular: it is our rôle to ensure that the Council embraces the S.C.C. as a means of increasing capacity to handle this increase in demand, both for water based and canal-side activities. The mood within the Council presents a once-in-a-lifetime opportunity to further our cause, and we are grasping it with both hands. To further our ambitions we are working with the Council and increasing our profile in many areas, including social media and events around the Canal.

This Summer I have undertaken a voyage in my own boat, which started in Manchester and will end at Brassknocker Basin shortly before Christmas; in doing this I have seen first-hand the wonders of our waterways and look forward to the Society adding to that total.

PATRICK MOSS

ANNUAL GENERAL MEETING

The next Annual General Meeting of the Somersetshire Coal Canal Society will be held on
Tuesday 13th June 2017
at the Radstock Museum, Waterloo Road, Radstock, BA3 3EP commencing 7.30 pm.

MEMBERSHIP RENEWALS

Thank you to all those members who have already renewed their membership for this year – your continued support is appreciated. Those who pay by cheque and have not already paid for this year, please post your cheque to the Membership Secretary (address inside front cover) as soon as possible. You can also renew on-line by Paypal *via* our website. Your Annual Subscription remains at the rate at which you joined, as a reward for your loyalty, but you may, of course add something more as a donation if you wish!

STEVE PAGE

DATES FOR YOUR DIARY — 2016

Sunday 16th October —10:00

WALK — WELTON TRAMWAY

Meet: Radstock Museum

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

Thursday 20th October— 19:30

SOCIAL EVENING — QUARRYING IN THE MENDIPS

by Robin Thornes

Meet: The Radstock Working Men's Club.

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

Sunday 6th November —10:00

WORK PARTY — Location to be advised

For further details please contact: *Adrian Tuddenham* ☎ 01225 335974

Thursday 17th November— 19:30

SOCIAL EVENING — MARITIME SHORTCUTS

CANALS ACROSS THE PENINSULA (South-west England and Overseas)

by Colin Vosper

Meet: The Radstock Working Men's Club.

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

Sunday 20th November —10:00

WALK — WINDSOR BRIDGE TO CHURCHILL BRIDGE

Meet: Old Windsor Castle Inn, Upper Bristol Road, Bath

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

Sunday 4th December —10:00

WORK PARTY — Location to be advised

For further details please contact: *Adrian Tuddenham* ☎ 01225 335974

Thursday 15th December— 19:30

SOCIAL EVENING — FUSSELLS OF MELLS

by Robin Thornes

Meet: The Radstock Working Men's Club.

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

Sunday 18th December —10:00

WALK — WINDSOR BRIDGE TO NEWBRIDGE

Meet: Old Windsor Castle Inn, Upper Bristol Road, Bath

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

S.C.C.S. VIDEO

With funding from a Heritage Lottery Grant, the Society has produced a short educational video which serves as an introduction to the Somersetshire Coal Canal. In just over four minutes, it manages to outline the entire history of the canal. Although all this information has been available on our leaflets and website for many years, it is now far more accessible to the younger generations of potential members who would be less inclined to learn about it from printed matter alone.

Beginning with the reasons why the canal was built, the video traces its progress through time, including information on William Smith, an animation of Robert Weldon's Hydrostatick Caisson Lock, a view of the Combe Hay Lock Flight and many of the other unique features which make it so interesting. With the aid of animated maps, it shows the course of both branches of the canal and illustrates their eventual demise and the coming of the railways. The present-day sequences show members of the work party clearing a site near Paulton Dry Dock, a digger in the process of restoring the canal between Withy Mills and Terminus Bridge, boating activity around Dundas and some of the wildlife and other leisure activities which the canal now supports.

The script was written by Chris Gittings and the video superbly photographed and edited by John Wyatt of Midsomer Norton.

It can be viewed by following a link from the S.C.C.S. main webpage:
<http://www.coalcanal.org>

or on YouTube at:
<https://www.youtube.com/watch?v=ifW1N2wFDQ8&feature=youtu.be>

RADSTOCK TALKS

Adits — Mike Chapman — 21 January 2016

Mike explained that adits were tunnels used for draining water from mine workings; often these ran for miles and, being hidden underground, were hardly ever recorded on maps. He described how the adit which fed the pumping engine at Combe Hay was discovered and then brought us up to date with the most recent discovery that a series of modern drainage works feeding Timsbury Basin were based on ancient adits originally mentioned by William Smith in his notebooks.

The History of Clay Pipes — Marek Lewcun — 18 Feb 2016

This talk on the clay tobacco pipe-making industry of Somerset covered the period from 1580 to the demolition of the last pipe-making factory in Bath in 1934. The design of clay pipes and manufacturer's markings changed every few years, which meant that by identifying these marks on the remains of pipes recovered from archaeological excavations, the associated finds could usually be dated to within about 20 years. The clay was obtained from Chitterne, Wiltshire, and there were many factories scattered along the trade routes of the area, with the hub of the trade being at Norton St. Philip.

Marek showed us part of his huge collection of pipes and a wide selection of artefacts, including a pipe-making mould, which was something none of us had ever seen before.

If you would like to book Mark Lewcun to give a talk to another society, he can be contacted on: 01373 834453

DONATIONS & SPONSORSHIP

The Society wishes to thank Joe Hitchins for his generous sponsorship of the canal restoration at Paulton

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

Mr C. Axon
Mr G. Blacker
Mr S. Bryant
Ms A. Todd
Mr. J. Fishlock

NEW MEMBERS

The Society welcomes the following new members:

Mr. A. Ruddle	Street	Mr. D. MacDonald	Radford
Mr. A. Ahumada	Peasedown St John	Mrs. A. Cannon	Keynsham
Mr. M. Rolfe	North Bradley	Mr. A. Matthews	Timsbury
Mr. F. Mitchell	Timsbury	Mr. R. Swann	Ilminster
Mr. C. Campbell	Newbury	Mr. C. Crews	Frome
Mr. R. Norris	Paulton	Mr. M. Smith	Ilminster
Mr. B. Snellgrove	Midsomer Norton	Mr. M. Smith	Poole
Ms. F. Sauze	Midsomer Norton	Miss L. Godwin	Camerton
Mr. J. Mitcheson	Portishead	Mr. D. Ahlberg	Paulton
Mr. M. Rayner	Paulton	Mr. T. Whitehead	Willenhall
Mr. G. Hooper	Ashburton	Mr. I. & Mrs S. Setchell	Paulton
Mr. M. Cox	Romsey	Mr. J. Lewis	Trowbridge
P. Brooks	Warminster	Mr C. Jenkins	Devizes
Mr. D. Carr	Bath	Mr. R. Little	Bleadney
Mr. R. Perkins	Bath	Mr. P. Neville	Fairport, U.S.A.
Mr. C. Gittings	Timsbury	Mr. J. Galley	Keynsham
Mr. A. Whitchurch	Shoscombe	Mr. B. Pearson	Finchampstead
Mrs. A. Flint	Bath	Mr. J. Walker	Redlan

OBITUARY

It was with great sadness that we learned of the death of 'Des', the digger driver who did so much of the restoration work for us last year. The restored section of canal between Terminus Bridge and Withy Mills, on which he continued working despite terrible weather conditions, is a monument to his skill, perseverance and willingness to help others.

We offer our condolences to his family.

A.N.T.

RUGBOURNE FARM

Historical background

As part of the William Smith anniversary celebrations, Rugbourne Farm was opened to visitors. We were guided around the interior of the farmhouse by the owners, Andrew Patterson and Zana Beswick, who have put in many years of work restoring this magnificent Grade II listed building which has a fascinating history.

Already in the Middle Ages there was mention in High Littleton of one 'John of Rokebourne', apparently a free tenant who lived beyond the village on his own land overlooking 'Rook Stream', but by the 17th century this holding was in the possession of John Britten, yeoman, who had acquired sufficient wealth by 1618 to purchase the lordship of the manor. This not only made him the largest landowner in High Littleton, but his dwelling at Rugbourne thereby became the manor house.



RUGBOURNE FARM HOUSE — 2008
before the attic windows were unblocked

It was probably soon after this that the present house was built on a larger and more sumptuous scale to reflect its higher status, replacing an earlier house of which nothing seems to remain except perhaps a fragment of a pointed-arch window in an adjoining wall. John Britten's wealth may well have come from coal mining, as records show that he and Thomas Hodges (the second largest landowner in High Littleton, mentioned below) were together already involved in the exploitation of coal in the High Littleton area by 1633, although the Britten family name became better known in connection with coalworks some 200 years later at Britten's Hill in Paulton.

REDISCOVERY OF A MISSING NOTEBOOK

Some while ago we were alerted by members of BIAS that a book dealer had acquired (and was prepared to sell) what was described as a "Ledger" which contained a hand-written record of Somerset Coal Canal Company finances in the 1840s. Labelled "Memoranda, Minute & Report Book", such a rare survival of a Coal Canal record was not to be missed, and the Committee authorised its purchase.

However, on examination, most of its contents, about 30 pages, consisted of notes, calculations and correspondence relating to a wide variety of subjects relating to the North Somerset Coalfield in general, including valuations, surveys, and even the results of an experiment in making coke. Since the first page contained valuable information on the canal, it had been assumed that this was the subject throughout. From internal evidence, these notes had been kept by a Mr.G.Feare, an official employed by the Timsbury collieries working as a freelance advisor and surveyor, who needed the information for his own work as well as keeping a record of his affairs.

Surprisingly, a few entries were found to be identical with information included by Down & Warrington in their *History of the North Somerset Coalfield*, obtained in their case from the National Coal Board records and vaguely referred to as the "Radstock notebooks; miscellaneous notes made during the 1926 strike, apparently copied from older notebooks now destroyed". The "Ledger" was evidently one of the original sources from which the "Radstock notebooks" had been copied. This was very encouraging, as it meant that Feare's notebooks, which would have remained with his family, had not been destroyed but were sold off privately.

In effect, this was an important record of the early history of the coalfield which, it was decided, would be better kept in a public depository rather than by the Canal Society, the most obvious choice being the Radstock Museum. This was agreed with Nick Turner, the curator, and a formal hand-over was eventually made at the Society's A.G.M. this year, held, appropriately, at the Museum itself.

MIKE CHAPMAN



NICK TURNER, ON BEHALF OF RADSTOCK MUSEUM, RECEIVES THE DONATION OF "THE LEDGER" FROM MIKE CHAPMAN

NORTON HOUSE - MIDSOMER NORTON

Have you ever noticed the gate posts halfway up Silver Street in Midsomer Norton on the East side? This was the main entrance to Norton House. It was built shortly after 1789 and demolished in the 1930s to eventually make way for the development of Parkway, St Chad's Avenue and Somervale Academy.

Thomas Savage, who was a principal shareholder in local coal mines, built Norton House in an estate covering an area of 27 acres, extending from North of the railway station to Somervale Academy. The Savage family lived in Norton House until 1888. James Savage, who was connected with the coal industry, was part of the initial committee, set up in 1794 to supervise the administration and affairs of the Somersetshire Coal Canal. The Chairman of the Committee was James Stephens, the Squire of Camerton.

In 1802 a one-sixteenth share of the coal works at High Littleton was transferred to James Savage from James Bush, reputedly in connection with the building of the S.C.C.. Both James Bush and Charles Savage became shareholders in the S. C.C..

An obelisk monument was built on the site of St Chad's Well by Elizabeth-Anne Savage as a memorial to her son, Frederick Savage, who died in 1866 from a disease contracted whilst serving in the Crimean War.

Whilst the grotto archway has long gone, the enclosure railings and gate have survived.



THE SURVIVING GATES OF NORTON HOUSE



Photograph by kind permission of Elizabeth Conway

NORTON HOUSE - MIDSOMER NORTON

My information regarding relationships between the Thomas, James, Charles and Frederick does not agree with the dates, but I think it can be assumed that they were all part of the Savage family of Norton House.

MARTIN STANFORD

Thanks to: Lucy Edwards - Friends of Silver Street

Matthew Beckett's website www.lostheritage.org.uk where the photograph of Norton House was found

In the early 18th century John Britten's grandson, 'Captain' John Britten esquire, had a half-brother, William Jones, after his mother's second marriage to a neighbour, Samuel Jones of Stowey House, brother of Attorney General Sir William Jones of Ramsbury Manor in Wilts. For some reason, John ran into debt with his half-brother and, having no heir at his death in 1742, bequeathed his High Littleton estate to William in compensation. It was said that he ruined himself by working the coal on his own land, a risky business without partners, although an enquiry into the Rugbourne estate a few years later recorded that there was 'a coalwork [not identified] on part of the premises which had a yearly value of £300' – an income equal to all the rest of the lands and premises put together! However, since William himself did not live at Rugbourne, having already inherited his father's estate at Stowey, he placed Rugbourne mansion and its demesne lands under the management of a tenant farmer, Cornelius Harris.

It also happened that William Jones was married to Elizabeth Strachey, sister of his neighbour at Sutton Court, John Strachey F.R.S. who published the first cross-section of coal strata in the North Somerset Coalfield – a significant factor in William Smith's discoveries. Although John Strachey's scientific interest may have been stimulated by his father's philosopher friend John Locke of Pensford (who once conducted experiments on atmospheric pressure in the local coal pits), his family had in any case a financial interest in various coal mines in the neighbourhood. Indeed, in April 1719, only a few

weeks before his paper on the coalfield was presented to the Royal Society in London, John Strachey had just leased land in Sutton to his brother-in-law William, 'to Search for open dig or Sink any pitt or pitts for Coal'. Among William Smith's notes is an annotated copy of John Strachey's cross-section with the date 1796 which suggests that it was during his stay at Rugbourne that the Royal Society paper was brought to his attention.

However, William Jones died in 1748, his estates passing to his two daughters Elizabeth and Mary, neither of whom married, and there is no indication that any shafts were ever sunk on the Sutton estate or, for that matter, in Stowey. Nevertheless, it was about this time that Jacob Mogg of Farrington Gurney Manor began to have a strong influence in the neighbourhood. Mogg not only became the dominant coalmaster in the North Somerset Coalfield in the late 18th century, but it was he and James Stephens, squire of Camerton, who were the first to recognise William Smith's potential and, as prominent members of the Somerset Coal Canal management committee,



EXTRACT FROM J. CAREY'S MAP OF THE PROPOSED ROUTE OF THE COAL CANAL AND TRAMWAYS (surveyed by John Rennie and William Smith in 1793)

At the bottom is the proposed terminus of the Canal, slightly different from its final site. Similarly, different courses were chosen for the tramways from the ones here represented by dotted lines.

able to promote his advancement. By the 1770s Mogg had already acquired extensive interests in this part of the coalfield, including Timsbury and High Littleton, the latter (by right of his wife) as manager of the estate of his father-in-law, George Hodges of High Littleton House after his death in 1761. Since George Hodges (a successor of Thomas mentioned above) was himself a coal owner, Jacob Mogg took over as leading partner in his collieries at Heighgrove and Rotcombe, and in about 1783 was able to obtain leases from Elizabeth and Mary Jones to sink a colliery on their land also, at Mearns.

When Mary, the last of the Jones sisters died in September 1791, she left her High Littleton and Stowey estates to her second cousin (once removed) Dame Elizabeth Jones of Ramsbury, widow of Sir William Jones Bart. In her will, Mary provided £1,500 *'for the benefit of the necessitous poor of the parishes of Stowey, High Littleton, St. Michael in the City of Bristol and East Cranmore'* which, to avoid making her executors liable for the payment, was to be charged to the High Littleton estate, including Mearns coalwork. However, since this could have been defeated in law, Lady Jones, sympathetic to Mary's charitable intentions and being sufficiently wealthy in her own right, paid the sum from her own pocket to the trustees. The High Littleton Estate was thereby discharged and Mary's will was given Probate on 15 October 1791. Nevertheless, needing to assess the value of her inheritance, Lady Jones commissioned Edward Webb of Stow-on-the-Wold to carry out surveys of both estates, the Webb family being then much involved in surveys required by Enclosure Act throughout the West Country. Edward had four brothers, all surveyors after their father, but it was his brother Francis in particular, an enclosure commissioner as well as a land surveyor, who had previously carried out many of those in Wiltshire, including Ramsbury in 1778, before moving to Salisbury a few years later. Taking William Smith as assistant in 1787, Edward continued over the next four years with enclosures in Colerne and Cricklade in Wiltshire, together with many others in Oxfordshire, Warwickshire, and Hampshire.



FINE PLASTER CEILING IN ONE OF THE GROUND FLOOR ROOMS



THE RESTORED OVERFLOW CHANNEL (Above) AND CULVERT (Below)



Rob and Liz slaved away all weekend, mixing mortar, laying courses of stonework and rebuilding more of the culvert arch. Their work had a further unexpected beneficial effect because, when the next S.C.C.S. work party arrived and saw what they had achieved, there was no stopping them either.



(Above) LIZ REBUILDING THE OVERFLOW CHANNEL
(Below) ROB REBUILDING THE CULVERT ARCH



Our volunteers decided that just working on a Sunday wasn't going to get the job finished this year, so they arranged a series of impromptu work parties during weekdays while the weather was still suitable. Extra materials were quickly brought in and equally quickly consumed as walls began to take shape at a cracking pace. In some cases, with no more than a few remaining traces of the original stonework to guide us, we had to make up our designs on the spot.

Rob had finished one end of the culvert and left the supporting 'centring' in place while the mortar set. We managed to get the centring out in one piece and re-install it at the other end of the culvert to support our reconstruction there.

There had been slots in the original stonework to allow some sort of weir board system to control the water levels and flows. When we came to put in a temporary weir, it became apparent that the remains of some part of the original construction was immovably jammed in the bottom of these slots and was preventing us from putting in a new board. No

amount of effort with a steel bar and hammer seemed to make any impression on it, so we resorted to hiring a powerful electric breaker. Even with that equipment it took two of us a whole morning to clear out the slots. From the chunks of oak we recovered, it appeared that there had been a hefty wooden frame permanently mortared into the stonework, with vertical slots in the wood to allow boards to be slid in and out as required. This made much more

sense than trying to seal the boards directly against rough stonework, so we intend to install a similar system in the future, when time and funds permit. In the meantime, we are wedging our boards against strips of old carpet to make a watertight seal onto the surface of the stone slots.

The centring was removed from the culvert without difficulty and spare soil redistributed over the area to cover up the newness of the work. The last work party and the clearing up afterwards was tinged with sadness, as the meadows next to Timsbury Basin had become a second home to some of us. Looking around it was difficult to believe that nearly all of the visible historic remains, which blended in so well, had actually been built by our teams of volunteers during those few busy Summer months. We look forward to doing some more work there next Spring.

This article only scratches the surface of the immense amount of planning, logistics and sheer hard physical work that went into ensuring the success of the restoration. We must record our thanks to all the WRGies, members of our own work party, landowners, contractors and friends, who were prepared, at short notice, to drop whatever they were doing to cheerfully turn out and help us when we needed it.



ZANA BESWICK DESCRIBING THE RESTORATION OF THE ROOF
Recently re-opened attic windows in the background

Evidently William Smith was professionally competent in surveying and property evaluation, with skills in practical engineering, by the time he was delegated to carry out Lady Jones' surveys, but it is also noticeable that his itinerary to Stowey (on foot) was not direct but on a roundabout route via Bath to Radstock, providing him perhaps with the opportunity to study the coalfield terrain. On his arrival in Rugbourne in October 1791, events developed rapidly. Once his familiarity with the geology above the coal measures became known whilst surveying the Stowey map early in 1792, he was also 'desired to investigate the collieries' in High Littleton, particularly Mearns, bringing him into contact with Jacob Mogg and his bailiffs who provided him with all the information he needed about the coal measures in that neighbourhood. By July he had acquired sufficient confidence to apply to Lady Jones to be a shareholder and manager in her mines and, though still giving his address as Stow-on-the-Wold, was evidently looking for independent employment in this area. As it happened, in December (the date of Smith's survey notes on the coal workings) the first meeting was held at the Old Down Inn to build the Coal Canal, and only a few months later, in February 1793, whilst finishing the High Littleton map, he was appointed to assist John Rennie with the survey of the canal route - less than 18 months after his arrival. His survey of Mearns may also have been to some effect, as in March Lady Jones granted a new 31-year lease to the partners, although no opportunity arose for Smith to become a shareholder. In the event, Mearns was exhausted by 1817, and her nephew William Jones Burdett Esqr., who succeeded her after her death in 1800, persuaded the partners to extend their operations instead to Woody Heighgrove.

→



[Above] **THE RECENTLY RE-DISCOVERED SERVANTS' STAIRCASE**

THE STAIRCASE DOOR INTO THE KITCHEN [Below]



In those times Rugbourne Farm, originally built to accommodate large numbers of people, would still have been a busy estate headquarters. Besides the elderly farmer Harris and his family, there were separate quarters (still evident today) for the staff and servants as well as for agents and visitors such as William Smith, although Smith's report of several 'darkened windows', presumably to save the expense of window tax, suggests reduced circumstances. Nevertheless, even now remains of its former glory can still be seen in one of the ground floor living rooms, where a fine strapwork plaster ceiling with English roses and Stuart thistles has survived, and at the front are the remains of a formal enclosed court surrounded with low dressed stone walls and gatepiers. Smith's description of the entrance suggests that it still retained an appearance of grandeur in his day, with niches in the walls on each side where he used to sit and study, and an avenue of fine elms over the approach road (it would be interesting to compare his written description with his High Littleton map). For his board and lodgings he paid Harris half a guinea a week (10s.6d), plus half a crown (2s.6d) for his horse, very necessary for the work of a busy surveyor.

By the Summer of 2016 we were able to arrange to host a weekend work party by the Waterway Recovery Group. Accommodation for a dozen volunteers was generously provided by Shelagh and Jonathan Hetreed in their Paulton Foundry studio, a cement mixer was donated by John & Hariett Dotteridge and a very large dead tree was removed from the site by Joe Hitchins and John Parsons. Two of our previous work parties had been devoted to clearing the site of vegetation (the strongest and most unpleasant nettles we have ever encountered¹⁾ and recovering as much stone as possible from the bottom of the waste spillway, ready for re-use.



A 'UNIMOG' EQUIPPED WITH A POWERED WINCH AND A BULLDOZER BLADE (TO PREVENT SLIPPING) TOWING OUT A DEAD TREE STUMP

The 'WRGies' arrived at their accommodation on the Friday night and slaved away all weekend, one group rebuilding the culvert arch and the other reconstructing the sluice gate slots and the stone walls of the waste spillway. During this period, the water from the streams had to be diverted through a temporary by-pass leat which Joe had cut for us across the adjacent field, as any flow of water in the work site would have ruined the soft and slow-setting mortar. By the Sunday afternoon, a huge amount of progress had been made; the site was unrecognisable compared with how we originally found it and was beginning to look like a bit of real canal. The walls couldn't be built up too far because the fresh mortar wasn't ready to take the weight of the extra courses of stonework, so two of the 'WRGies', Liz and Rob, volunteered to come back the next week and continue with the work. The canal had been fairly full at the start of the work, so we estimated that it could survive another week with the by-pass in operation and this would give us a good dry site the following weekend.



A BIG MUDDY HOLE WHERE THE TREE STUMP HAD BEEN. W.R.G.IES PREPARING TO BUILD A DAM TO KEEP THE STREAM OUT OF THE WORK AREA.

By the next weekend, vandals had struck again; some of our materials had been taken and used to block the by-pass leat, so the work site was flooded and the new mortar was under water. No serious damage was done but it wasted a couple of hours of our time removing the obstruction, pumping out the site and waiting while it drained.

1) No longer true: our October 2016 work party encountered even worse nettles



THE CHANNEL LEADING TO TIMSBURY BASIN THROUGH THE QUOINS OF THE RETAINING WALL

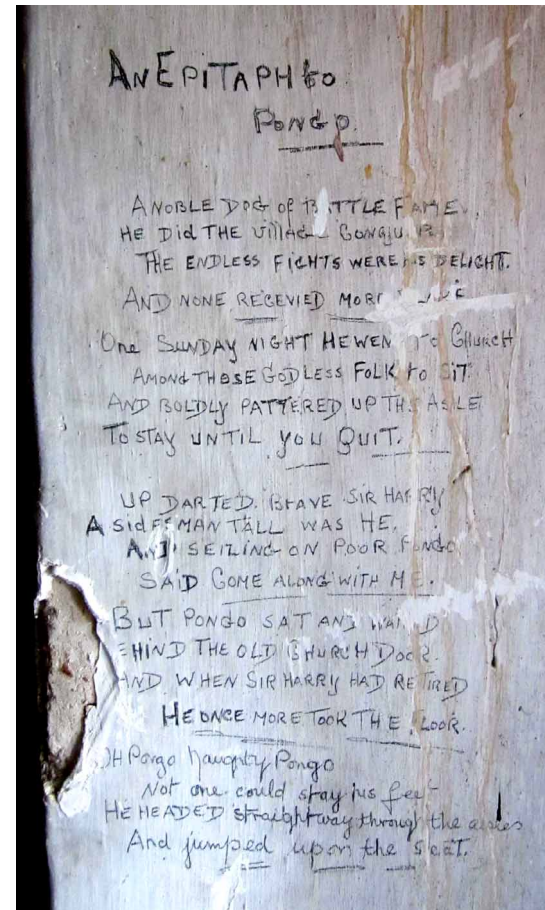
The arched culvert was blocked with silt, which was impeding the flow of water into the canal; digging it out was going to be a mammoth task which could only be done by hand. Luckily we were offered assistance with this by a team of volunteers from Network Rail who wanted to get their hands dirty as part of a team-building exercise - they surpassed themselves at this, ending the day plastered in mud from head to toe. Unfortunately this had involved removing our temporary weir board to lower the water level in the culvert, which had interrupted the water supply to the canal; it was

followed by a day of frantic activity trying to replace the board and re-seal it under far-from-ideal conditions.

A further cause of water loss was the drain near Terminus Bridge. This was in terrible condition and we couldn't see how to make a watertight seal to the mess of damaged stonework and rotted ironwork, which was all that remained of it. Joe Hitchins, the digging contractor, came up with a brilliantly simple and practical answer by suggesting that we pushed an off-cut of 250mm pipe down the drainage culvert, sealed it with packed clay and then fitted a temporary cheap plastic gate valve to the end of it. This worked brilliantly - except that our clay packing failed twice under the pressure of the water and was only eventually made to work by the heroic efforts of our work party members, Gordon Tucker and Dave Ahlberg who spent hours of their time wading around in mud and slime until they put it to rights. Gordon and Dave came to the rescue again when the supports for the temporary weir board were vandalised, allowing the board to collapse under the pressure of water. They effected a really strong repair which last well beyond the intended life of the structure and gave us the breathing space to arrange some proper repairs to the surrounding stonework.



A VIEW DOWN THE DRAIN NEAR TERMINUS BRIDGE
With rotted ironwork and displaced and leaking masonry



[Above and below]
EXAMPLES OF INTERESTING GRAFFITI UNCOVERED DURING RESTORATION WORK



With the canal route established by September 1793, from hereon Smith was entirely involved with the canal. In March 1794 he gave evidence before Parliament in support of the Canal bill, and in June, after the Act was passed, accompanied William Jessop and John Rennie on a further survey for the deviations before his countrywide tour with members of the management committee in August to inspect the latest engineering developments. Throughout the following year, whilst still at Rugbourn, he was mostly occupied as Company Surveyor with tenders for the work, but in November was appointed sub-engineer to William Bennet, and it was at this stage, to oversee the construction of the canal, that he left Rugbourn to find temporary lodgings at Cottage Crescent, the Swan Inn and Midford until 1798 when he acquired his own house at Tucking Mill. However, contact was not entirely broken; in 1802 the High Littleton Vestry commissioned 'Messrs. Smith & Cruse, surveyors of Bath', to undertake a survey of Hallatrow, similar to the High Littleton one of 1793. On this occasion however it was William Smith's partner, Jeremiah Cruse, who carried out the work, the bill amounting to £37.14s.0d. In all, Smith had only stayed at Rugbourn for four years, but it was during his time there that he first formulated his ideas about stratification, for which reason it could lay claim, as he put it, to be the 'birth-place' of English geology.

MIKE CHAPMAN

RESTORATION PROGRESS

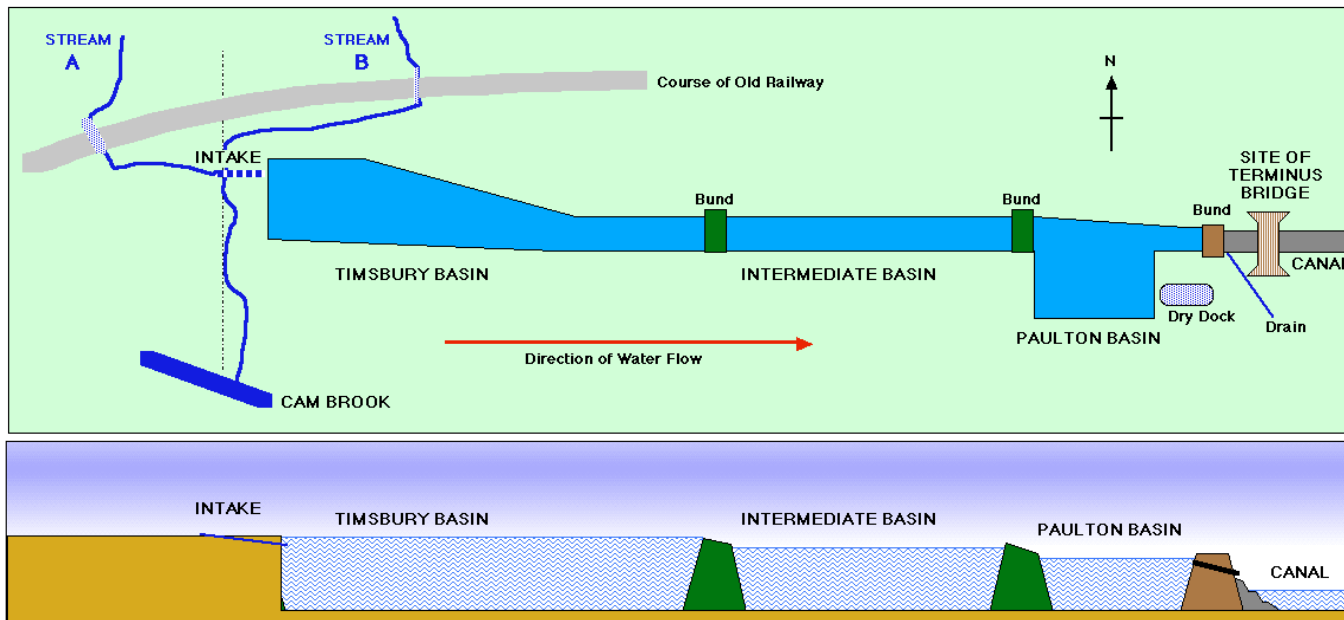
Part 3 — Water Supplies

In the first two parts of this article (*Weigh-House 69 & 70*) we covered the restoration of the S.C.C. East and West of Withy Mills as far as Terminus Bridge. With the canal structure in place, we now had to fill it with water.

Water supply underpins any canal project; it is an aspect often neglected in the minds of the general public. Although the Northern Branch of the S.C.C. depended on pumped water for most of its life, there is evidence that, at least in the early days before the lock flight was built, some sections of it were fed from the Cam Brook or its tributaries. The key factor was the rights of mill owners along the Cam, who were guaranteed their water supply by law. This did not mean that the canal was unable to use the water from the brook, but it meant that any water taken had to be returned upstream of the next mill, so that the mill was not by-passed.

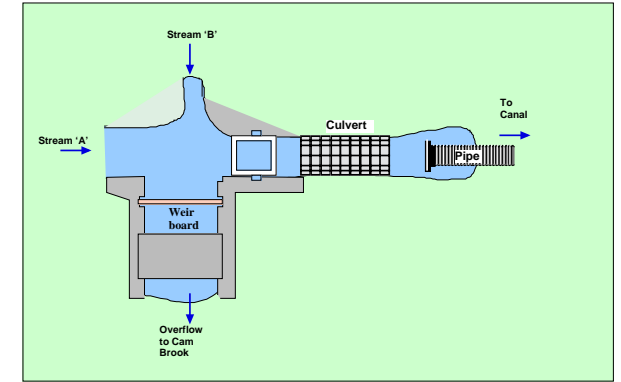
For our purposes, the recently restored sections of canal could be fed from two streams ('A' and 'B' on the plan below) which converge a short distance West of Timsbury Basin; maps of the basin show the presence of a leat from the streams, leading to the end of the canal, and this is confirmed by a photograph taken in the 1860s. At the point where the streams met, there was a complex of stone structures, which looked as though they had been intake control sluices, and a large arched-over culvert leading to the canal. We soon discovered that the arch only extended for a short distance, so it was actually more like a small bridge over the western end of an otherwise-open leat. The leat had been infilled and grassed-over at some time in the past to avoid interrupting the continuity of the meadow, which was used as grazing pasture for cattle and sheep.

In the early Summer of 2015, we obtained permission from the landowner to use a local contractor to excavate the line of the leat and install a 250mm diameter plastic drainage pipe from the intake structures to Timsbury Basin. The eastern end of the pipe entered the canal just below water level, so that it did not spoil the rural appearance of the basin, and the western end was raised just above normal maximum water level of the canal, so that failure of the control sluices would not accidentally drain the basin of water. This had the effect of requiring the streams to be dammed in order to raise the incoming water to a level which would enter the pipe, but this was felt to be a small price to pay for the security of the water already in the canal.



PLAN AND ELEVATION OF THE CANAL AT TIMSBURY AND PAULTON BASINS

During excavation for the pipe, an unexpected obstacle was encountered in the form of a substantial mortared wall running North-South about 10 metres from the western end of Timsbury Basin. It was faced on its western side and rough on the side facing the basin, which suggests that it was a retaining wall for the earth embankment which formed the basin end. It was quite impenetrable at the point where the digger hit it, so obviously our trench had wandered away from the original course of the leat. A quick re-assessment of the situation suggested that we were too far North, so the digger dug southwards along the wall and soon uncovered the pair of quoins through which the leat had originally passed. This meant that our only-slightly-flexible pipe now had to wiggle sideways in a 'dog leg' to go through the gap, as well as wiggling up and down to accommodate the different levels at its ends.



ENLARGED VIEW OF THE INTAKE AREA
Showing the two streams meeting, the culvert leading to the canal at Timsbury Basin and the overflow channel with a weir board to maintain the correct water level

The trench was backfilled with pea gravel and a layer of earth and turves; the end of the pipe under water in Timsbury Basin was disguised with a mound of grass and water plants which we hoped would eventually become natural-looking and make it quite inconspicuous. That evening, two large white swans took up residence on the mound, attracting the attention of every passer-by to this new feature.

To raise the level of the streams and establish a water supply to the canal as quickly as possible, we installed a temporary wooden weir board in the badly damaged stone slots which once held a sluice gate of some sort. It leaked so badly that we had to cover it with a plastic tarpaulin and try to seal the leaks with builders' expanding foam and clay. The modern foam proved useless, but the traditional clay did a much better job.