

Stephen Hughes works for the **Royal Commission on Ancient and Historical Monuments in Wales** as an Investigator of Industrial Monuments. For nine years he has been doing preparatory study for a series of large volumes on the archaeology of canals and early railways in Wales and concentrated initially on the Montgomeryshire Canal. In many IA circles he is now affectionately known as 'Mr Montgomeryshire'.

One thing led to another and after writing a twenty-page article for *Montgomeryshire Collections* in 1981, a gazetteer and extra illustrations were added and a thirty-two page booklet was published under the same title as the county magazine piece; *The Industrial Archaeology of the Montgomeryshire Canal*. The entire print order (600) was taken up in eight months and it is currently being reprinted, pending a new edition, which should appear in 1984/5.

Now if it should be thought that Stephen Hughes's Montgomeryshire enthusiasm is a thing apart from his general duties with RCAM (Wales) I hasten to say that far from this being the case, there are a host of 'colleagues' involved; Brian Malaws, Iain Wright, Jane Durrant and Tony Parkinson, and on the showing so far, the Welsh Commission is heading the field in practical industrial archaeology.

RCAM (Wales) must be recognised in IA high places, for when the CBA Industrial Archaeology Committee held their *Crisis in Recording Industrial Monuments* meeting in November 1981 (reported in Bulletin 9/3) it was suggested that the various Royal Commissions might use their undoubted surveying and recording expertise to train IA students. Stephen was then able to point out that the Welsh Commission were already doing just that.

In fact they had arranged to administer the 'surveying and recording' component of the Institute of Industrial Archaeology IA Diploma Course for 1982-83, **naturally** along the Montgomeryshire Canal.

And it came as no surprise that an MSC scheme was proposed and eventually approved to employ four RCAM (Wales) trained people to (in official language) **survey and research industrial archaeological monuments on the Montgomeryshire Canal**. This is now going ahead and will provide additional material for the revised edition of 'the book'.

A splendid story of enthusiasm and down-to-earth hard work by everyone concerned, not least the Royal Commission itself which it

getting a steady stream of new surveys and additional information deposited with the National Monuments Record for Wales, an archive which is meticulously indexed, kept at the Commission's Aberystwyth office: Edleston House, Queen's Road, Aberystwyth, Dyfed SY23 2HP, telephone 0970 (STD) 4381/2, and can readily be consulted by the general public.

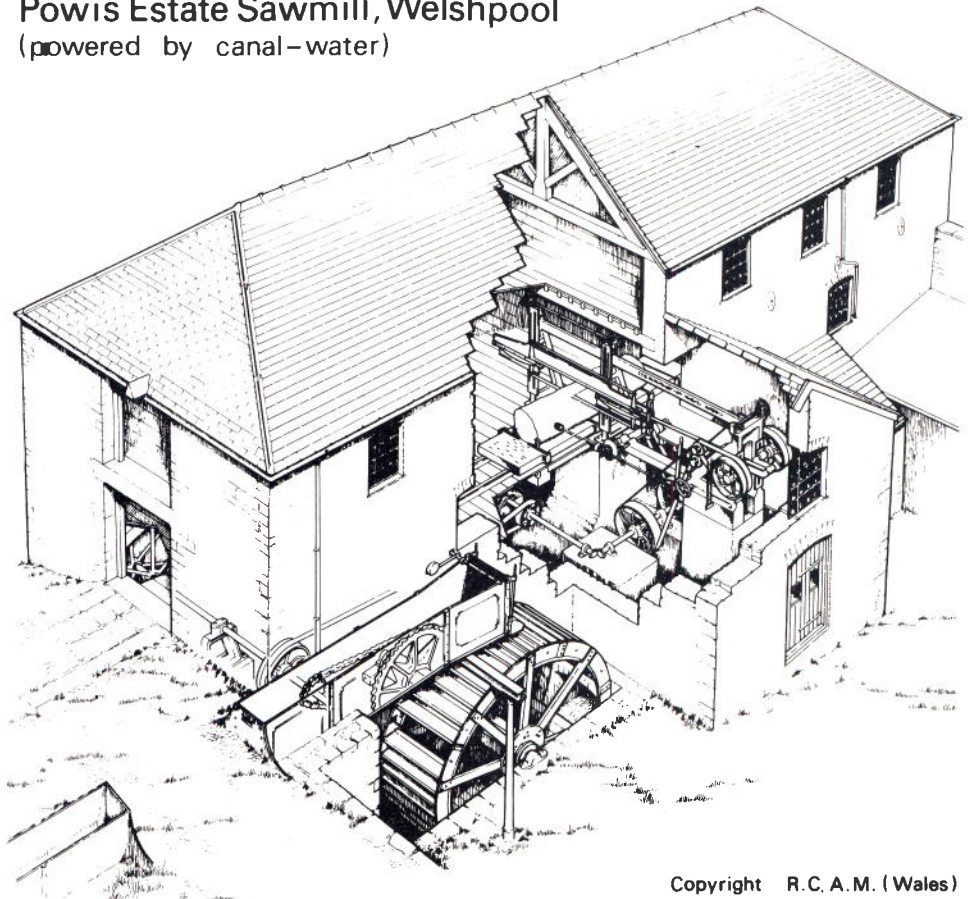
Details of the Montgomeryshire project. Where, you may ask, is the Montgomeryshire Canal? The book contains a towpath-type-map of the entire length and this introductory paragraph:

The 'Montgomery Canal' is today defined as the line of waterway stretching from the Llangollen Canal at Welsh Frankton in a south-westerly direction through Llanymynech

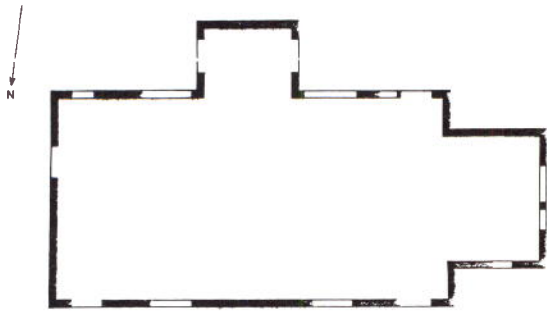
and Welshpool to Newtown. In fact, this 34 mile length consists of four completely different canals which have been linked in name only under modern ownership. The objective of all four canals was to carry and distribute lime for agricultural purposes from the lucrative quarries at Llanymynech Hill, the carriage of this lime substantially outstripping any through-traffic likely to emerge. Two canals stretched out on either side of Llanymynech quarries from a common terminal nearby.

It also contains 29 pages of text, 24 photographs, 5 drawings (including the magnificent cut-away by Geoff Ward reproduced on this page and 5 other maps. If you can get one (try writing to Stephen Hughes) they are £1.95 including postage. However potential buyers could have to wait for the reprint.

Powis Estate Sawmill, Welshpool (powered by canal-water)



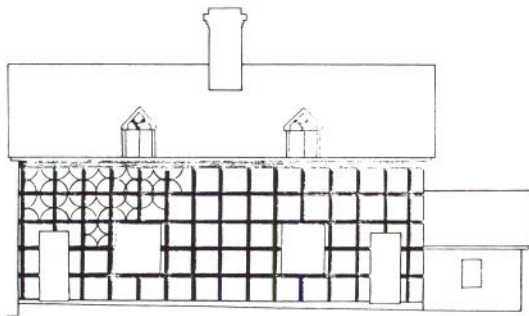
COTTAGE AT BELAN LOCKS, WELSHPOOL, POWYS



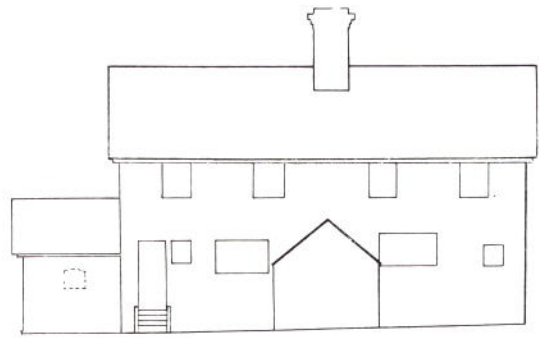
Ground Plan



West and East Elevations



North Elevation



South Elevation



Surveyed by BM, F.O., M.J.S., J.C.T.
 Drawn by K.O., J.C.T.

The survey for the Institute of Industrial Archaeology's 1982/3 Diploma Course has produced an excellent series of additions to the RCAM (Wales) archive including this Cottage at Belan Locks, Welshpool.

It has also resulted in a set of notes on surveying industrial buildings prepared by Brian Malaws and Tony Parkinson, and which are reproduced below.

Very Basic Notes on Industrial Buildings

1 Preliminary

It doesn't matter what units you measure in as long as they are stated on the survey drawings, so that if necessary someone else can plot from your notes. Show feet and inches as (for example) 6/2 (= 6 ft. 2 in.) or 14/- (= 14 feet 0 inches) &c. A dimension in the apparently simple metric system can be expressed in several ways; for example, to express 13.200 metres and 0.765 metres you can write 13.2, 0.765 metres; 1320, 76½ or 76.5 centimetres; or use the British Standard system of 13 200, 765 millimetres. Whichever system you use, be consistent.

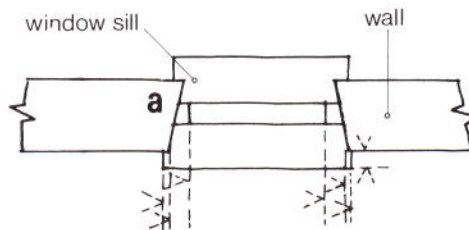
2 Survey Team:

Two people are better than one, three is best. The 'leader' books the measurements and directs operations; the second reads the tape or rod and the third (if available) holds the zero end of the tape for the leader. Each team requires a tape (20 m/50 ft. or longer), a 2m/6 ft. folding rod or steel pocket-tape, several sheets of A4 size (A3 is better) paper clipped to a rigid board, an HB pencil, a red pencil and a rubber.

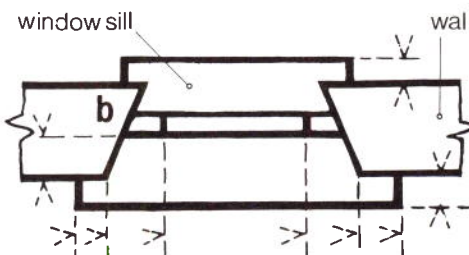
3 Measuring Plans:

In each room:-

- a) Sketch the room at a large scale using conventional representations of doors, windows &c. Draw everything to be measured. Don't try to make your sketch a scale drawing, exaggerate small details to enable all the dimensions to be fitted in clearly. If a sketch becomes cluttered draw 'details' at a large scale and note 'see detail' on the main sketch.



Not this...

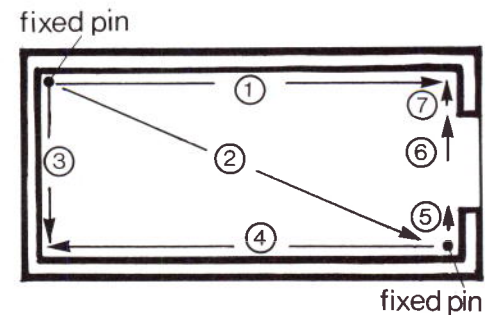


dimension lines and arrow heads in different colours

But this...

It is helpful to use a different colour for dimension lines and arrows so as not to confuse the drawing, but write all dimensions in ordinary pencil.

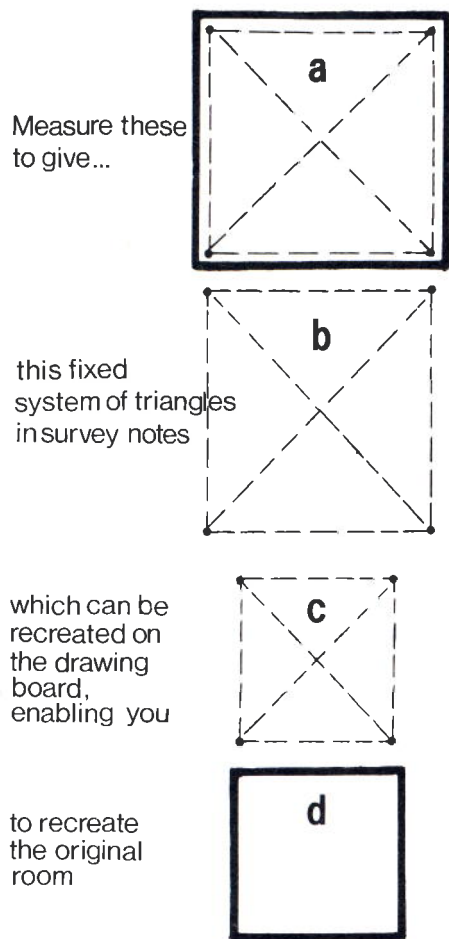
- b) Measure each wall systematically and book each measurement. Start with tape zero on the left hand edge of a wall and measure to the right. Apart from enabling you to read the tape the right way up, it is easier to plot as scale rules are usually graduated from left to right. If you are measuring single-handed it may be quicker to fix a nail or pin in two opposite corners and measure outwards from each pin to record the four walls, and then between them to get the diagonal.



Always take running measurements where possible as this minimises movement, is more accurate, and is easier to plot.

- c) Measure and book the diagonals; although one will suffice, taking both serves as a check. Note the exact points measured.
- d) Measure and book extra details, eg fireplace or alcove depths, wall-to-glass distances at windows and wall thicknesses.

e) Remember that you are trying to create a grid of interlocking triangles with wall junctions at their apexes. When plotting, you are merely re-creating this grid of triangles at a smaller scale and joining their apexes to form the plan of the room or building.



No more than one sketch per floor of a building is preferable; this avoids missing out wall-thicknesses where sketches meet and makes it possible to note measurements from one room to another. If a second sketch is needed, mark the junction points clearly.

These rules (except c) also apply to exterior plans.

4 Measuring Elevations and Cross Sections:

- Sketch, as 2a) above.
- Measure details horizontally if they will not appear on plan.
- Record details vertically by taking a datum line (eg a level line of window sills) or creating one (eg chalk or string line set up with a spirit- or dumpy-level) and measuring up and down to it. If you use several datum lines, as on a multi-storey building, ensure that the heights between them are booked. The horizontal datum lines are thus easily re-created on paper, enabling features to be drawn in vertical relation to each other.
- Cross-sections:- Check floor thicknesses at stairs. Obtain structural details of the roof by setting a datum line across the building; measure vertically from it to key points on the roof trusses and record the distances along the datum.

e) Supplement elevations drawings with photographs.

5 Plotting:

- Bear in mind the purpose of your drawing and use an appropriate, recognised metric (or imperial) scale. Plot a scalebar on your drawing so that if it is reduced or enlarged it is still usable; simply stating 1:100 or 1:96 or whatever on a drawing is not enough.
- Plot with a soft but sharp pencil on a stable material: Permatrace or similar is best, good drawing card (not multi-layer like mounting- or watercolour-board) or cartridge paper is OK, tracing paper is almost useless.
- Don't try to make a finished drawing straight away. You are producing a **plot**; a high quality drawing for publication or exhibition must be traced on another sheet using the plot as a basis.
- Build up each room using diagonals and wall lengths to form adjacent triangles; fit exterior dimensions to interior at door and window openings.
- Put in North point; this may be worked out either using a compass on site, or from a large-scale Ordnance Survey map (6" to the mile or larger).

And appropriately the following was released from the British Waterways Board office in June of this year.

Montgomery Canal – Full Restoration is Justified say Consultants.

At a meeting in Shrewsbury in June 1983, the findings of Consultants who were appointed to study the economic, social and environmental benefits of restoration of the Montgomery Canal were presented to an invited assembly of sponsors and organisations interested in the waterway. The findings concluded that the greatest economic benefit would be achieved by the completion of the project for restoration to cruising standard in the shortest possible time of the whole 33 mile length of waterway between Newtown Pump House, Powys, and its connection with the national canal network at Frankton Junction, Shropshire, together with the short Guilsfield Arm.

The cost of full restoration is estimated at £9.4 million, and the additional annual maintenance costs at £84,000. The return to the local community from increased tourist expenditure would be over one million pounds a year, and the equivalent of 186 full-time jobs could be created in the towns and villages along the waterway. A much improved recreational and leisure facility would be available for the enjoyment of all.

Welcoming the report, the Chairman of British Waterways Board, Sir Frank Price DL, who chaired the meeting, said that, with the support of local authorities and voluntary organisations, the Board had achieved considerable success in restoring derelict waterways for recreation. In February of this year, some 80 miles of restored waterways had been added to the 'Cruising' network. Full restoration of the Montgomery Canal would be a significant addition to the leisure waterways and be of lasting benefit to the local community.

The study, which was presented by consultants W S Atkins and Partners was commissioned by a consortium led by the Welsh Development Agency. The other partners are British Waterways Board, Shropshire County Council and Inland Waterways Association.

Opening of First Major Inland Transport Waterway since 1905.

Sir Frank Price, Chairman of British Waterways Board, recently unveiled a commemorative plaque at Eastwood Lock, Rotherham to open the improved section of the Sheffield and South Yorkshire Navigation and which allows suitably designed craft of up to 700 tonne pay-loads to navigate inland between Rotherham and the Humber Ports.

The Mayor of Rotherham, Councillor J Allott, then renamed the lock 'Frank Price Lock' in recognition of his major contribution in leading the campaign in close co-operation with South Yorkshire County Council and Rotherham and Doncaster Metropolitan Borough Councils, to bring a modern, economic transport waterway to the industrial heartland of South Yorkshire.

The Scheme, which cost £16 million has been funded by central government and grants from the Regional Development Fund of the EEC and South Yorkshire County Council. In all ten locks have been rebuilt or enlarged within the provision of the Scheme since construction work started in April 1979. Other major works included the modification or rebuilding of eight road and rail bridges and seven major channel widening, re-alignment and river diversion schemes necessary to allow large barges to navigate the waterway.

Information Required. Derbyshire Museum Service has received a request for information on the firm of D Ath & Elwood.

It is believed that this firm made the steam winding engines for Nailstone & Bradley Collieries (Nr Stockport). Research in the Museum's files and those of The Derbyshire Record Office have not produced any information whatsoever. Anyone able to help is invited to get in touch with Maggie Heath at The Derbyshire County Museums Service, Matlock, Derbyshire DE4 3AG, telephone 0629-3411, extension 7399.

Industrial archaeology has a world-wide following and as more AIA members are looking for IA sites during their annual holidays it seems sensible to publish details of industrial archaeological interest abroad whenever available. The following feature on the tanning industry in France was sent to us by Roy Thompson a well-known authority on leather, its history and processing.

