

DYEHOUSE AT BRIMSCOMBE MILL

MICHAEL POUNTNEY

GEOFFREY BEDDOW A.C.I.M F.C.S.I ©

The building which is the subject of this article was demolished during the year, and thanks to Mr James, the owner, and Mr Lionel Walrond, curator of the Stroud Museum, members of the Society's Surveying Section under the direction of Geoffrey Beddow ACIM., FCSI., were able to record it in a detailed, measured survey during June and July 1976, prior to infilling of the area. Members taking part were Lionel Walrond, Michael Pountney, David Evans, Frank and Adam Peachey, Adrian and Simon Beddow, Amina Chatwin, and students of the North Gloucestershire College of Technology.

The central part of a range of buildings at Brimscombe Upper Mill is illustrated on page 139 of Jennifer Tann's book "Gloucestershire Woollen Mills", where it is described as a "dyehouse". In surveying the structure in detail, the fact that we were recording only one small section of the total range of buildings made conclusions difficult, as access was not available to the other sides of party walls, and so on. It is clear that much more work would be needed to arrive at an accurate picture of the mill as it was when working.

Brimscombe Mill. A mill has been on this site since at least 1539, and in early records it is referred to as a fulling mill. By the mid-nineteenth century it was not simply a cloth finishing works, but also a weaving mill. In 1843 it passed into the hands of John Ferrabee, but by 1845, it was up for sale again. This time the buyer was Samuel Stephens Marling, who leased it to Messrs. William and White of Alderley. Inventories from these transactions are quoted in Tann.

In 1858 the mills passed to P.C.Evans and J.W.Bishop (though the landlord was still Samuel Marling). New buildings were erected and old ones modified during this period, and by 1889, 124 looms and 6400 spindles were working on the site. Work at Brimscombe ceased shortly after the amalgamation of the firms of Marling and Evans in 1920.

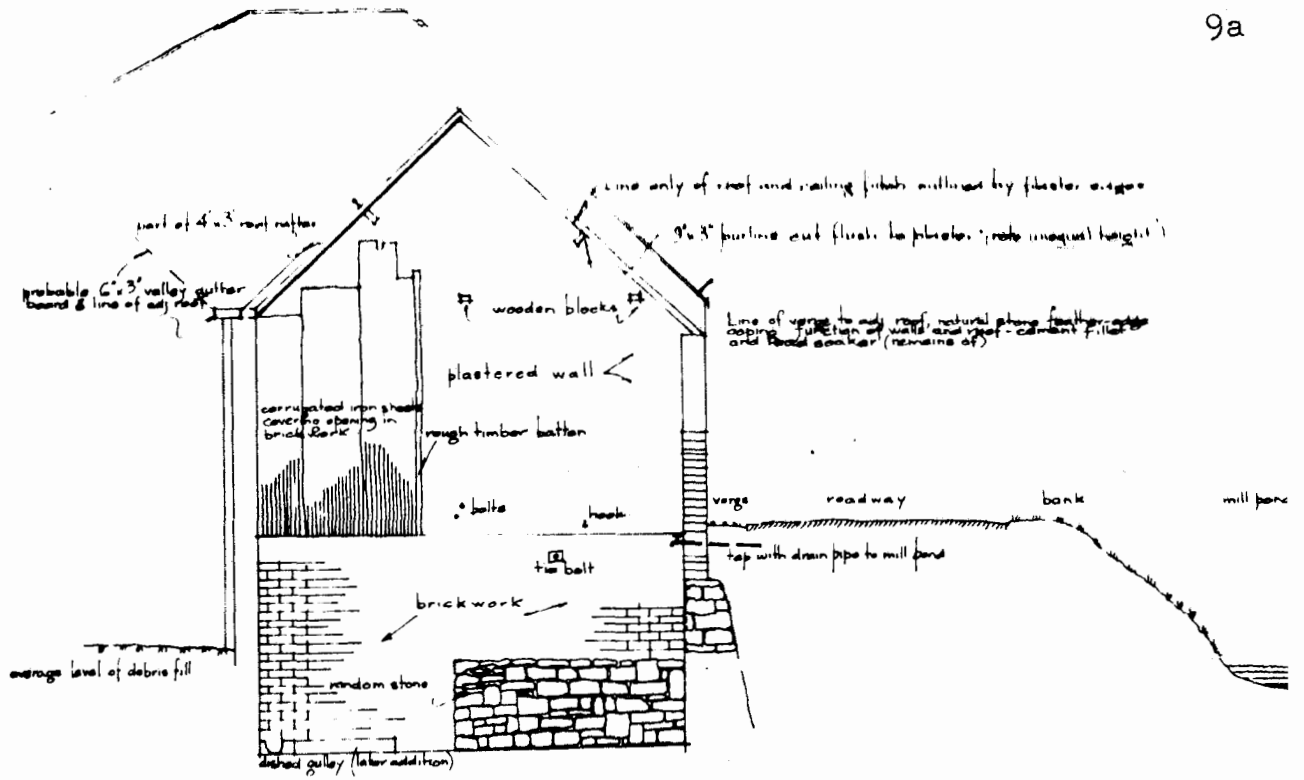
The buildings. The main building of Brimscombe Upper Mill, and nearly all of Brimscombe Lower, have been demolished, and the range of dyeworks buildings, with which we are concerned at the moment, has been leased out for various purposes. The building which we were surveying had clearly been modified at various times.

The building as first seen was without roof, and full of rubble. The interesting point was, that set into the stone flagged floor were two troughs. These troughs are roughly 3ft X 6ft., and set to one end of the building. Into one of them was a constant flow of fresh water, which (probably because of the effect of demolition upon drainage channels) was not draining away fast enough. The troughs were made of cast iron sides and ends set into a cement base. The ends were 21" higher than the sides, and had guides cast in them, which appeared consistent with having planks of wood inserted to make a side to the trough. This hypothesis was confirmed by fragments of wood adhering to the grooves. There are grooves for two planks each side, separated by a gap of about 4". Stone and blue slate packing under the line of the inner plank suggested that this had been raised above the cast iron base to allow water to overflow under it. The outer plank, on the other hand, had been sealed to the flags around the edge with cement. To collect the "overspill", and carry it away, there was a channel under the stone flags, and a drain cock in one corner was accessible through a metal plate in the floor. There was no means visible for regulating the flow of water into the troughs. (but see comments in structural survey below.)

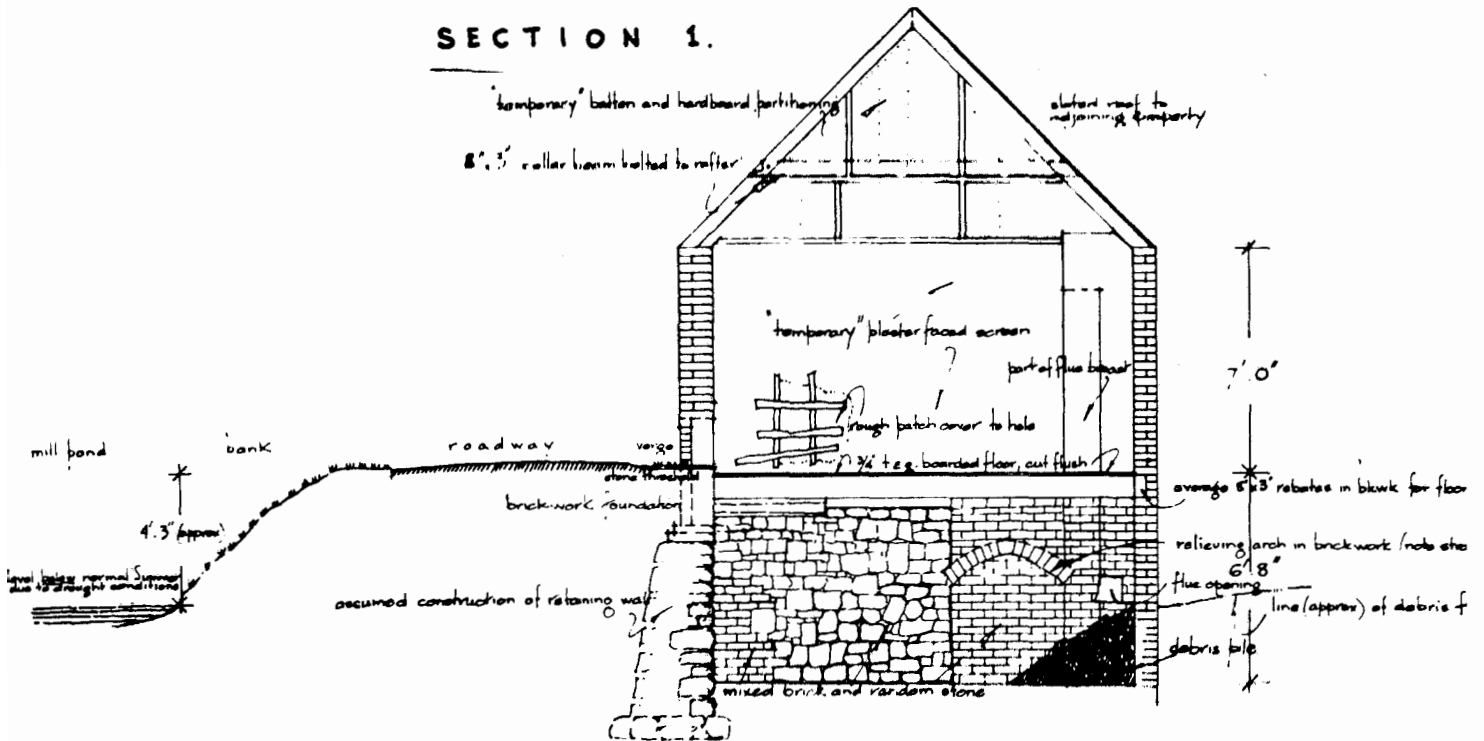
To summarise, then, we have two troughs let into the ground, 15" deep, with a constant inflow of fresh water, the level of which is regulated by allowing it to spill over the cast iron side pieces into a gutter. Above this, a "wall" of cast iron ends and timber sides clearly not intended to retain water, but probably, to prevent too much spillage on to the floor of the work room. (See internal N.E. Elevation.) Above the centre of each trough, in the wall, was a screw hole suggesting that something fairly lightweight had been hung there.

The inference about these troughs is that their purpose is washing or rinsing. They would appear to be a sophisticated version of the "4 stone and 1 wood washing cisterns" present in the Wool scouring and Washing Houses in the inventory of 1845.

The two troughs occupied only half of the length of the room, as can be seen from the plan. At the other end, stone flags and drainage gutters indicated more use of water, though no remains of any installation were visible. There was nothing specific to indicate a boiler in this particular room, and the roof does not appear to have possessed the louvres of the large dyehouses adjacent.



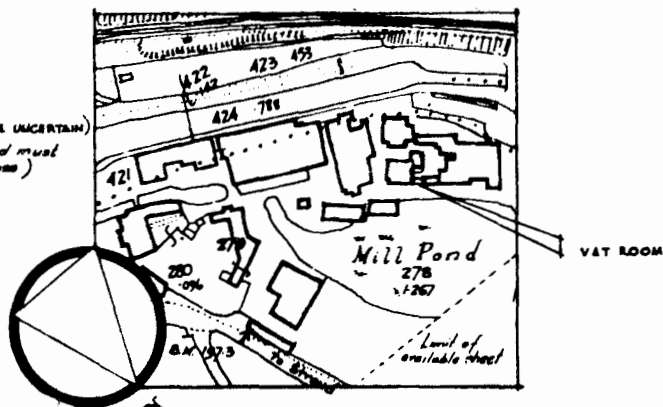
SECTION 1.

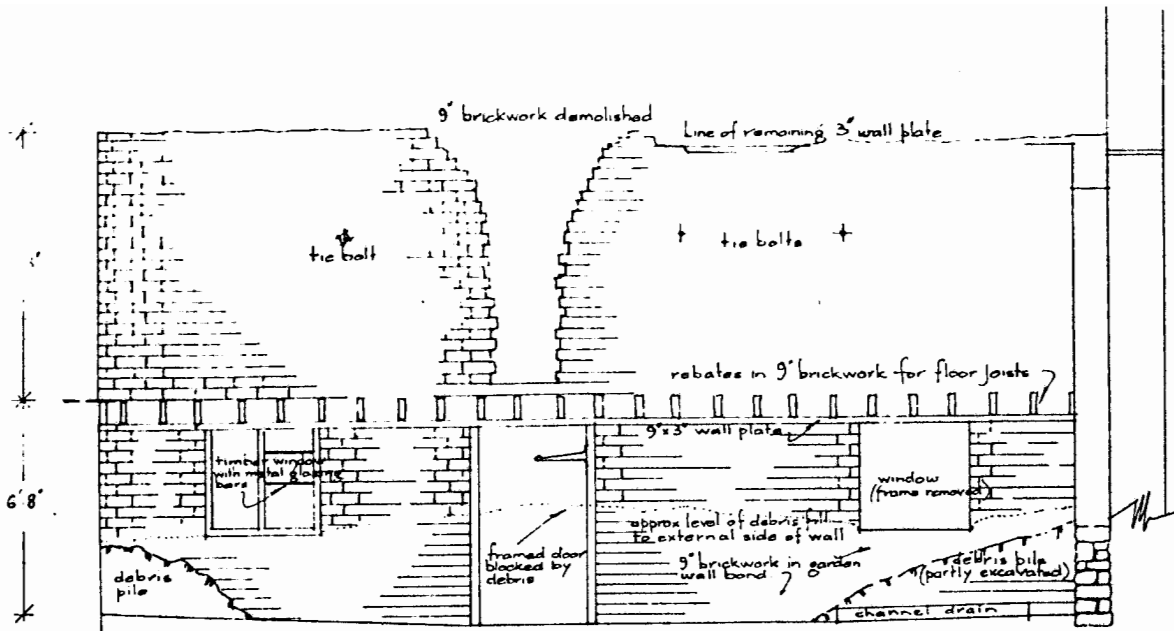


SECTION 2.

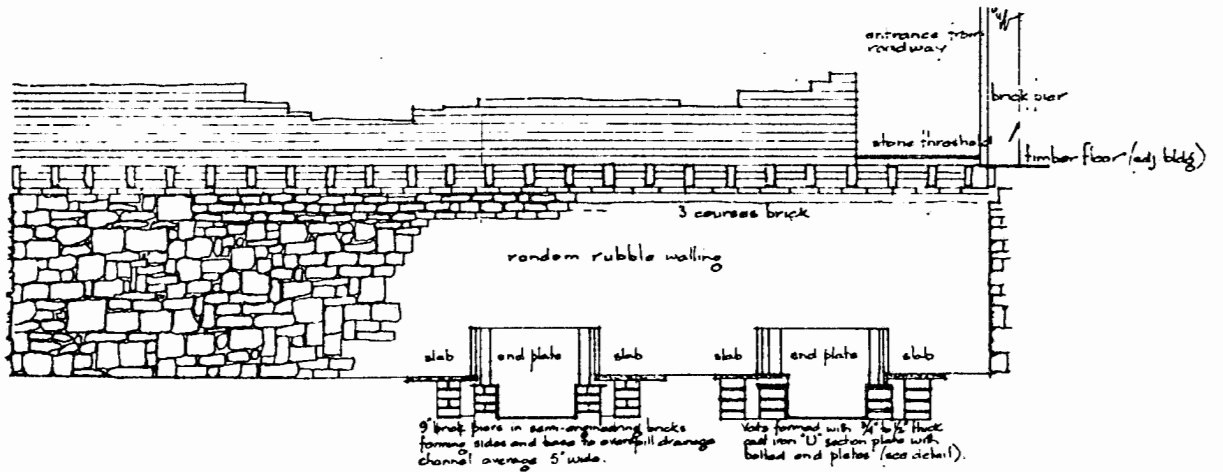
LOCATION PLAN (SCALE UNCERTAIN)

(This plan is purely for identification of site and must not be used or interpreted for any other purpose)

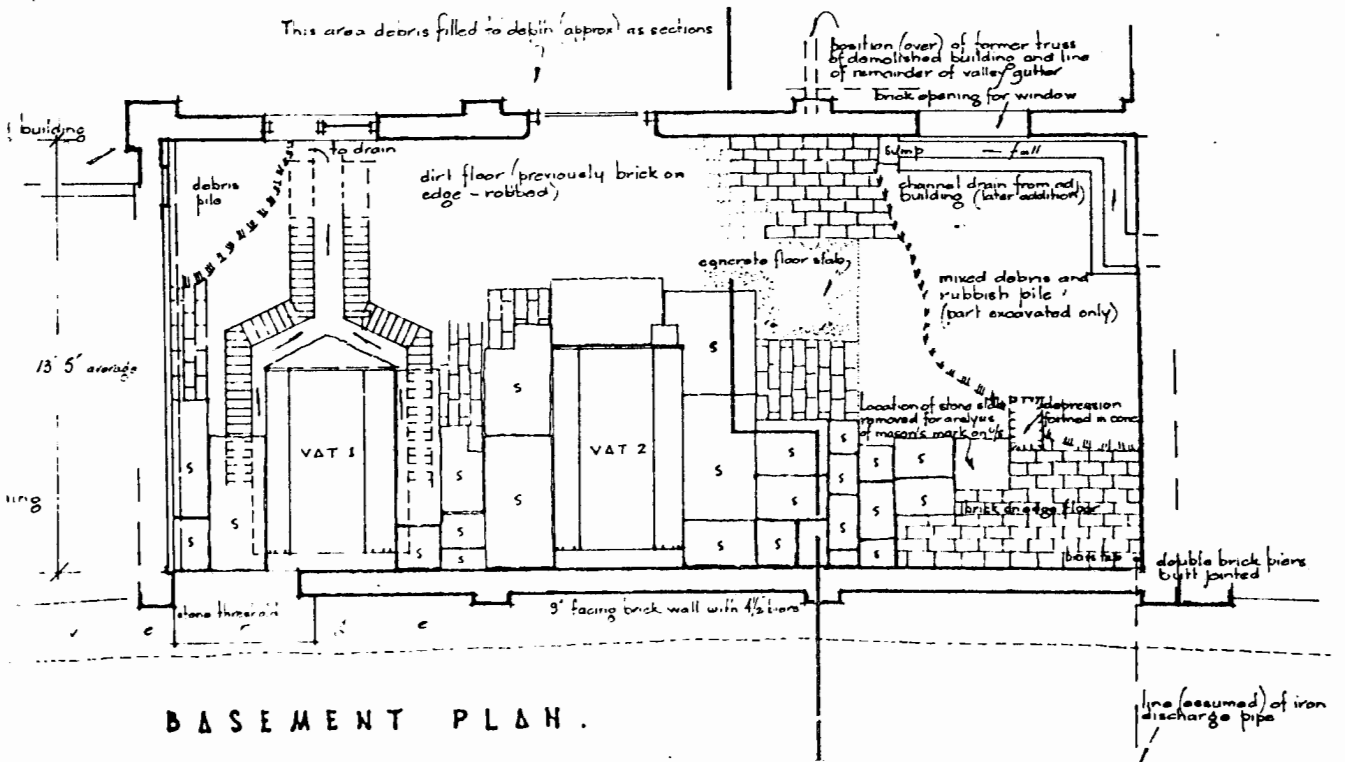




INTERNAL SOUTH WEST ELEVATION.



INTERNAL NORTH EAST ELEVATION.



BASEMENT PLAN.

STRUCTURAL APPRAISAL by Geoffrey Beddow ACIM., FCSI.

The dyehouse is located on the South Bank of the mill pond (1.267 acres) and faces North West. The pond, which from an Ordnance Survey Sheet of 1882 then had marshy areas indicated along much of its North East bank whereas today these are well defined. Even in the dry conditions of the Summer during surveying, the water level was good and with a reasonable depth overall. Further examination of the O.S. sheet shows alteration to the line of the overspill weir in the N. West end of the pond. This fact led to detailed examination of the surrounding land levels about the area of the dyehouses and revealed roadway levels to be some 3' 0" and 2' 0" with a mean of 2' 3" above common entry levels to buildings where no other major disturbance of ground levels had taken place. The conclusion is thus made that the banks of the pond were raised and in conjunction with perusal of a Deed plan dated 1885/6, it was noted various rebuilding and demolition work had already taken place in the vicinity of the dyehouses during that three to four year period to be completed more or less to the present layout by c. 1901.

A photograph in Jennifer Tann's "Gloucestershire Woollen Mills" (p. 139) is thus able to be dateable as post 1901. Together with other evidence, such as overhead electricity supply cables and posts, discernable in this picture it is possible to define the period as near 1924 (possibly 1922). The significance of this is shown in the condition of the range of three dyehouses, all of which show signs of dilapidation (e.g. broken window glass, slipped slates, missing guttering), by c. 1922.

The original building (pre-1900) would have been built in random local Cotswold stone, the North East wall forming a revetment to the then lower level of the mill pond and to the tram road bed laid between it and the pond. No trace of the tramroad was discovered, but it must have been laid at a very much lower level if the short but very sharp inclines now introduced by revised ground levels were to be avoided. In other words, the evidence on the O.S. of the existence of a tram road pre-supposes alterations to land levels as an operation subsequent to its removal, and vindicates our assumptions.

It is thus considered the general external levels were raised c. 1900 and that the present brickwork of the dyehouse structure dates from then, having been raised off the remaining stonework on the North East and from the two partition walls lying N.E to S.W at each end, where traces of the original stonework remain. The rear wall (S.W) has been completely rebuilt in brickwork with joist nousing rebates for a timber floor (destroyed) formed at 16" centres to carry 8" X 2" transverse joists and ¾" (nominal) floor boarding. Two windows with wood frames and some remaining metal glazing bars are built in at the lower level either side of a door opening which, originally gave access to the rear yard, some 6' 0"

lower than the roadway on the North East or front elevation.

The original floor of the dyehouse, now some 5' 9" below the road level was stone slabbed throughout with local Cotswold stone sets averagely 3' 0" X 2' 0" and of a conventional 2" thickness, laid direct to consolidated earth. An excavated slab revealed an interesting "anchor" type mason's mark on its reverse face the origin of which is being researched.

The floor was laid to a pronounced fall from N.E. to S.W. and with a slight crossfall to ensure drainage of the washing water to the open "Y" culverts connecting to a still functioning enclosed drain in the S.E. corner of the building. Some (earlier) brick lining of the culvert is evident but this is not associated with, in type, the bricks used for general rebuilding purposes, and for repairing the floor where slabs, for some reason have been removed.

The partition wall to the South East end has been subjected to major alteration and it is considered the original access to the central dyehouse was obtained through an opening from the adjoining (S.E) building. There is a brick relieving arch adjacent to a brick 9" X 9" flue which has a soot door on the central dyehouse side, almost immediately above the culvert. This suggests the presence of a fireplace (boiler?) within the curtilage of the S.E building and not, as has been supposed, within the dyehouse under review.

At the present tarmacadam level, a slate threshold indicates the later entrance door to the 'new' timber floor, formed through the 'new' solid garden wall bond brickwork with 18" X 4½" integral piers carrying the roof trusses. Within the bays thus formed, early type cast iron small light window frames in wood surrounds were built in. No trace remains in the central dyehouse, the walls being demolished to under sill height, but they are in situ in the building immediately to the west. The roof levels were staggered on the three buildings forming the dyehouse range, rising some 4 and 6 brick courses at each party wall from East up to West, whilst on the West party wall of the dyehouse under review, a curious configuration of the brick party wall, capped with Cotswold stone saddleback coping stones, has no obvious relevance to constructional requirements. The gable ends at the far East and West of the range are conventional.

The roof construction is heavy for the span. Kingpost trusses were employed bearing on brick piers and secured to double 4" X 3" wall plates, (some remnants remain). The blue Welsh slates are carried on conventional slate battens (2" X 1¼") and appear to have been set to a 4" lap on the 2 No. 6" X 4" purlins, between trusses. Lead soakers and flashings (remnants are 6 lbs) were employed to weatherproof the junction of party walls with roof. There is a vertical straight joint in the brick pier to the West end where it abuts a similar pier

supporting the adjoining (West) house and this lends more conjecture to the reason for the peculiar shape of the party wall capping. The three buildings are not aligned but are slightly tangential around the broad curve of the mill pond profile at this point. Traces of cup irons for half round gutters were found but no remnants of the (cast-iron) guttering was discovered, nor associated downpipes. The area of the "new" floor had been divided by partitions to the West end (and possibly the East too) as plaster with colourwash finish remains in situ. Headroom to plate level was approximately 7' 6".

Externally on the South West elevation ("new" brick walling), traces of an added structure with a pitched roof was discovered occupying this area from the East partition wall to the lower level doorway. It is possible this structure extended the full length of this wall as wall tie bolts still remain in the upper areas of the brickwork, either side of the doorway, whilst one tie rod to the roof extension truss is still, in part, in situ. Measurement and calculation indicate this extension to have been about 16' 0" wide thus enclosing part of the original adjoining construction to the West end where its wing returned Southward. The whole of this area has been backfilled above cill level of the lower timber and metal windows of the dyehouse to a depth (av.) of 4' 6" and semi-consolidated.

CONCLUSION:

After the final decline of the Mills (Upper and Lower) in 1920, following the amalgamation of Messrs Evans with Marling & Co., Ltd., these buildings were subjected to a variety of modifications and changes of use. Those which remain now serve as garages and stores for a caravan manufacturing concern and the last use of the dyehouse examined, as evidenced by the rubbish clearance undertaken by the Survey Section team, would seem to have been as a repair workshop and component store for motorised transport. Therefore whatever the reason for re-building the dyehouse range, it had a very short life, having fallen into neglect by c 1922/4, a period of less than 30 years of designed use.

Traces of pen stock framings were discovered in the millpond, aligning with the flap inlet valves to the troughs. It is feasible to assume these were controlling the supply of water to the dyehouse but indicate the water level, when they were in use, to have been some 4' 0" (approx) lower than at present (see section of Survey drawing). No penstock machinery remains.

Reference to survey sheets by the Ordnance Survey Dept., and Deed plans (not always fully annotated) and their comparison to on-site remains indicate considerable changes in layout of this complex between 1882 and c. 1912, much of which appears to have occurred post c. 1912 as re-alignments, demolitions and new works are not fully reconcilable before that date.

GEOFFREY BEDDOW

It is clear from this work that Brimscombe Mill, and probably many more in our County, has much to offer the Industrial Archaeologist, and it is the hope of the writers of the above that it will encourage others to undertake more work of this nature. The mills of the area are not being demolished wholesale, they are being eroded piecemeal, and unless we seize upon every opportunity, we shall suddenly find that it is too late.

MICHAEL POUNTNEY

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