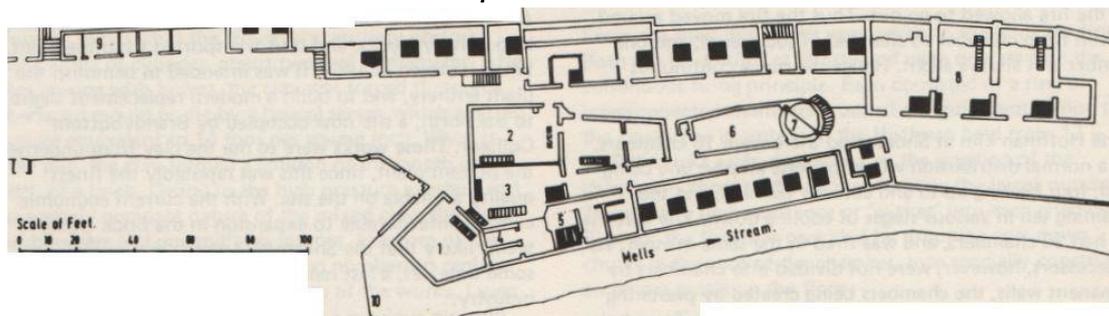


FUSSELL'S IRONWORKS MELLS, SOMERSET



- 1 Grinding Shop. 7 Gasometer.
- 2 - do - 8 Tilt Hammer Shops.
- 3 Tilt Forge. 9 Stabling.
- 4 Coal House. 10 Weir. Water Wheel found during excavations.
- 5 Gas Retort. Forges and Furnaces.
- 6 Coal Yards. Water Wheels.

SITE LAYOUT_BASED ON PLAN-c.1840-50

As reported in **BIAS Journal 7**, excavations started last year to derive information from this important site (Grid Ref: ST 738 489) which was then threatened by a proposed sewer. Work thus began with all the urgency of a 'rescue archaeology' situation, and although the immediate threat has receded the work has continued and some important finds have been made. In this brief interim report, **Robin Stiles** and **John Cornwell**, who is in charge of the excavation, explain the background to the work and describe some of the significant discoveries.

In the spring of 1974 several members of BIAS decided to undertake a small scale emergency excavation on the site of James Fussell's Lower Works in the Wadbury Valley, Mells, when it was discovered that a proposed sewerage scheme would destroy a large section of the site. From this initial exercise a comprehensive project has evolved involving site clearance, excavation, recording and restoration, whilst at the same time research into archival records has commenced in earnest. This is therefore a preliminary account of the first eighteen months efforts with the intention that similar progress reports will follow in subsequent editions of this Journal and ultimately a full excavation report and survey.

Historical Background

The only readily available published source of information on this site is contained in Robin Atthill's book *Old Mendip* and we are greatly indebted to him and Father Jebb and members of the staff and pupils of Downside Abbey for direct assistance on the site with the excavation. Generally speaking references for the site are very sparse but one fortunate survival is a notated plan of the site which although undated, clearly shows the works in the 1840/50 period. One thing is certain: the enterprise commenced as a plot of ground for the erection of a mill or mills for grinding edge tools and forging iron plates in 1744 as evidenced by a 99 year lease of the site granted to James Fussell of Stoke Lane by the squire of Mells Manor, John Horner. At the end of the eighteenth century trade had increased to such an extent as to be specifically noted by Collinson in his *History of the County of Somerset* as extending to Europe and America.

In the early years of the nineteenth century the works had forges, hammers and grindstones powered by no less than nine water wheels and had large trade stocks on hand including:

- 80 tons of old iron
- 28 tons of bar iron
- 1700 dozen scythes
- 500 dozen reap hooks

Sometime in the 1860s steam power replaced the water powered hammers and grindstones and a new rolling mill was erected on the downstream end of the works. Finally, in 1894, the business was bought by Isaac Nash of Bellbroughton Worcestershire, the plant and machinery were sold by auction and the buildings were allowed to fall into dereliction.

Description of Site

The site is hidden deep within the wooded and narrow confines of a limestone gorge cut by the Mells Stream, a substantial watercourse flowing eastwards off the eastern end of the Mendip Hills, to join the Somerset Frome and eventually the Bristol Avon. A natural fall point has been adapted as the basis for a weir in order to harness the remarkably constant flow of water and still provides an impressive display of power with the thunder of falling water.

The impression of the works on our first visit in 1973 was one of a vast overgrown complex of ruined buildings (or walls), with only the roofed structures of the office block and a building converted in more recent years to house a turbine-generator to give any indication of structure or purpose. Otherwise a general air of mystery surrounded the strange ivy covered ruins, labyrinthine culvert openings and a large three-arched structure highly reminiscent of a railway viaduct.

When in 1974 we heard that the intended sewage scheme would cut through the site action was taken to initiate at least a rescue dig. It soon became evident that much was to be learnt from a full scale excavation and we were greatly encouraged in this when the local authorities took the enlightened decision to vary the line for their sewer in order to allow the historic remains to be excavated.

A summary of the main finds

1. An exciting discovery, amongst the first objects to be excavated, was an iron water wheel, still in situ but buried in mud and rubble. It is an overshot wheel 11ft x 1ft bins with 8 pairs of spokes, and is intact except for the loss of buckets on the upper side. The wheel appears to have been installed since 1850 as it is not shown on the plan of that date. (see Plan).
2. A substantial furnace with unusual internal shape and arrangement of flues, possibly some sort of reheating furnace. It backs onto a set of gas retort furnaces for the original coal gas plant, and the flues helped to heat the retorts. The whole structure stands about 12 feet high, and is built of brick and rubble which is in urgent need of consolidation (see photograph).
3. One of the most remarkable finds on the site so far has been that of some ceramic tuyeres like those used in a Bessemer converter for making steel.
4. A row of small hand forges in a well-floored building running alongside the River on the lower part of the site. These have been largely excavated by the Downside party.

5. A network of culverts running beneath the site have been explored and charted. The major culvert runs for 165 yards extending for much of the length of the site. Essentially, it consists of a masonry arched tunnel, some five feet six inches high and five feet wide at maximum. It seems to have been modified at various stages in its life. The subsidiary culverts are somewhat smaller, but still impressive. (see photograph).

A summary of the progress of the excavation:

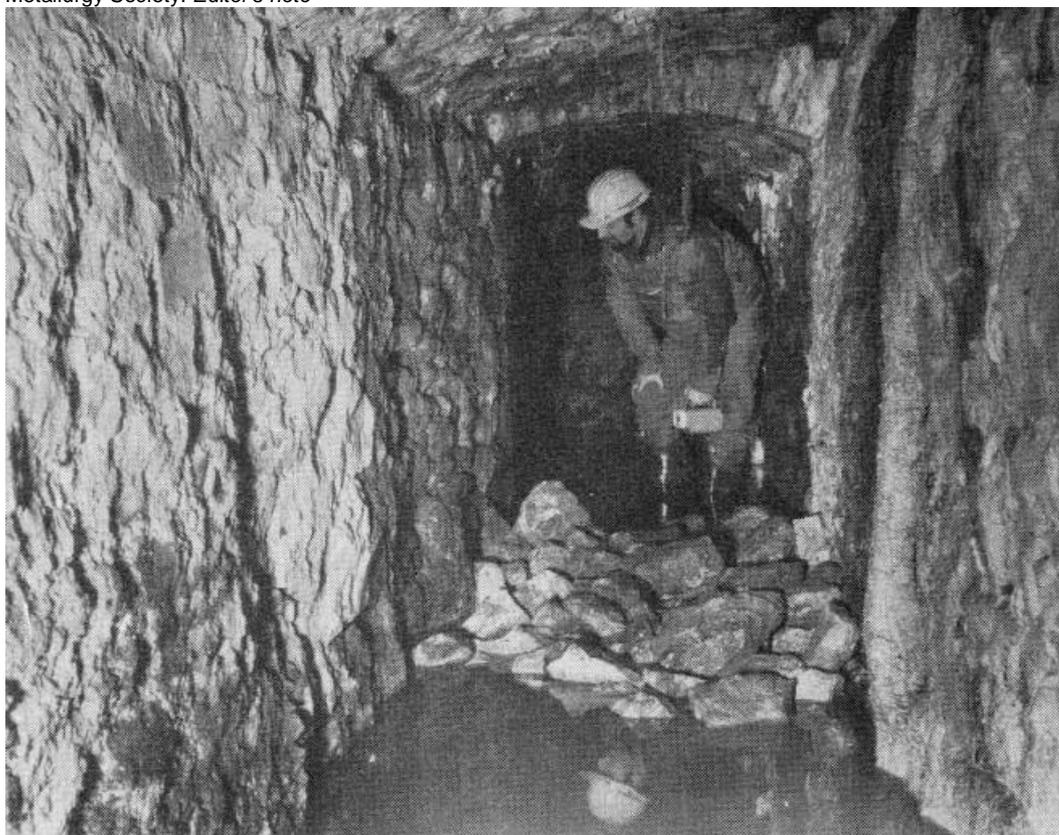
April 1974	Excavations commenced
June	First BIAS day: water wheel uncovered
June	Gas retort uncovered
July	Dig in shop next to wheel abandoned, site flooded.
August	Uncovering of forge arches in small tilt forge.
October	Fill removed from interior of coal holes.
November	Removal of modern wall around coal holes and furnace.
January 1975	Excavation of furnace
February	
March	Total excavation of large area between gas
April	Second BIAS day: fill removed from small wheel pit, work commenced in first grinding shop
May	Excavations commenced in area in front of the hand forge.
September	All underground watercourses and culverts surveyed

Access to the site

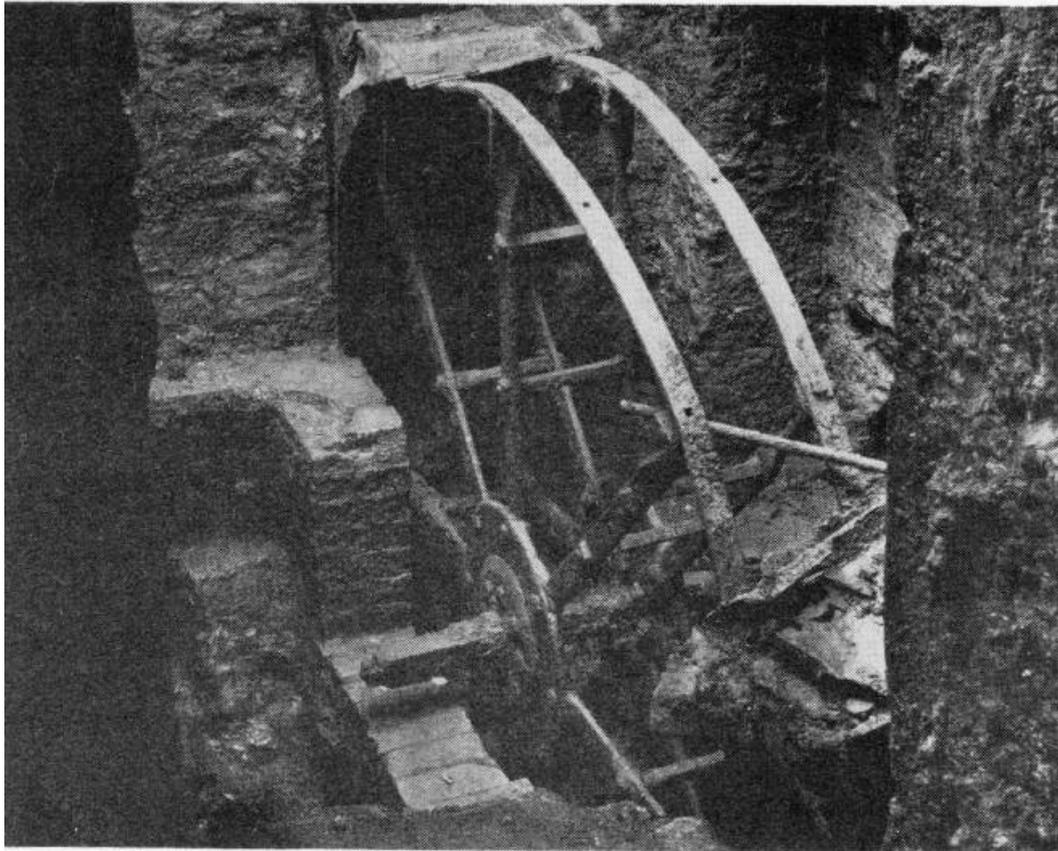
The excavation site of Fussell's Lower Works in the Wadbury Valley is on private property. The owners willingly granted permission for the excavation and have since shown great interest and cooperation with the BIAS members working there. They are; however, becoming increasingly troubled by unauthorised visitors to the area of excavation who sometimes even intrude into the nearby grounds of their own home. We think it unlikely that any BIAS member would be discourteous enough to act in this way but, we take this opportunity to stress that, apart from the usual Sunday working parties, no member should visit this site without prior arrangement made with John Cornwell, telephone Bristol 658256.

The Historical Metallurgy Society Grant

In September the committee of BIAS received a generous grant from the Historical Metallurgy Society towards the expenses incurred in the Mells excavation. Shortly afterwards, a series of visits by intruders, who caused varying amounts of damage, prompted the purchase of large quantities of barbed wire with the intention of keeping future vandals out. However, it is hoped that the remaining sum will be spent more profitably on materials to conserve the features already uncovered. HMS members have shown great interest in developments at Mells at the Annual Conferences, and secretary Kenneth Barraplough and treasurer Charles Black have both visited the site in the past year, travelling from Sheffield to do so. Editor, Dr R F Telecom from Newcastle-on-Tyne plans to visit Mells in the Spring. A special report on the work of the excavation will be prepared for publication in the Journal of the Historical Metallurgy Society. *Editor's note*



Underground culvert system



The 11ft overshoot waterwheel



The furnace

Pictures by John Cornwall