

Note on Burton on Trent Flour Mills, Winshill, Burton on Trent, Staffordshire

River Trent          Grid Ref SK 2628 2407

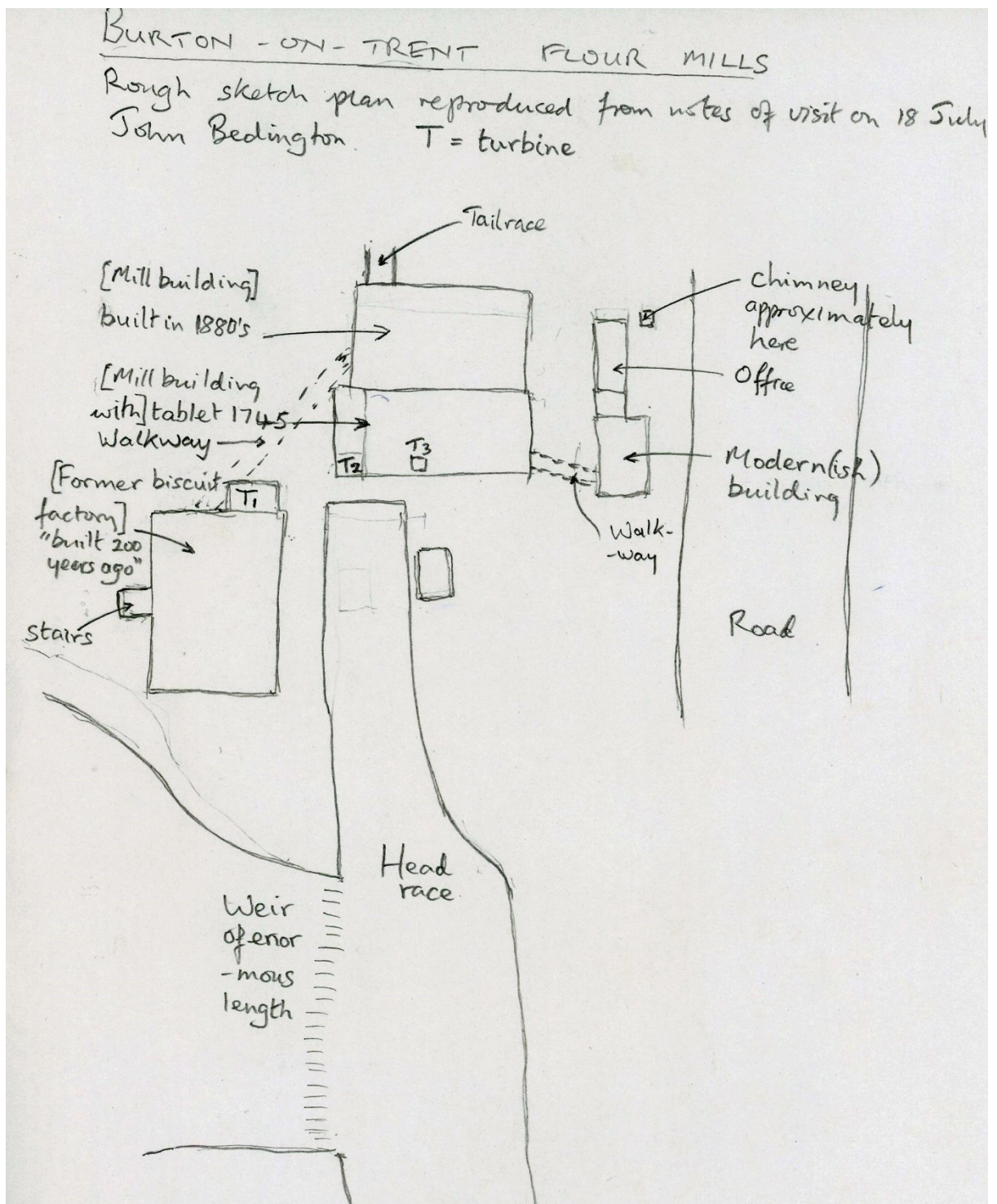
1. This mill was unusual in Staffordshire, being just a mill with no farm. It was unique at the time of my visit in 1969 as being the only water-driven mill in the county with roller plant still complete, indeed working.
2. The mill made an attractive complex of buildings, with the old mill building, which had a date-tablet 1745 in front and a classic late Victorian roller mill building adjoining behind, and various other buildings, notably one which was joined at the top to the roller mill by a long covered walkway with BURTON FLOUR MILLS painted on it; this building had been a biscuit factory (at least, that was what I was told, but it strikes me it may have been a mill for making biscuit flour), and at a previous date a tape-weaving mill operated apparently by the Peel family (who also had tape mills in Fazeley, about 17 miles south). I was told that the present operators of the mill had used this building just for storage, with the turbine used until three years previously for hoisting.
3. The mill itself had two working water turbines, and I was told one was for the flour machinery and the other for the grist (animal feed) machinery. For some reason I didn't see the grist machinery. Presumably relatively modern grinders had replaced millstones and it was housed in part of the 1745 building. I suspect it was a small part of the business compared with the flour trade.
4. For more details see the retyped version (transcript) below of the note I made immediately after my visit, and redrawn sketch plan. Incidentally, the sack hoists with wooden disc clutches are something I have never seen elsewhere.
5. There is an article by Alan Gifford in the Midland Mills Group journal number 21 (2002) on this mill (entitled) "The Mills at Winshill, Burton-on-Trent" which gives a lot more information. He says Greensmiths decided to close the mill in 1991, and it was gutted of the roller plant under the Millers' Mutual scheme, though the two turbines of the mill itself continued to operate to make electricity.
6. The mill, including the "biscuit factory", is now flats. Whilst it is sad it is no longer a mill, I have to say that it is evident from pictures that

externally the development has been extraordinarily well done, with the character preserved, including the creamy-yellow paintwork, and the walkway with BURTON FLOUR MILLS painted on the side.

7. There is an interesting article on the internet (the local history of Burton upon Trent <http://www.burton-on-trent.org.uk/category/surviving/peel/peel01> ) about this mill, or at least the old tape mill (later biscuit factory).
8. have items on this mill.
9. I understand the HES Simmons collection has notes on this mill.

John Bedington, 2020

*Burton on Trent Flour Mills – transcript made in 2020 of note of visit made in July 1969, with clarifications in square brackets -*



## Burton Flour Mills

Visit 18 July 1969

These notes from memory (aided by herewith attached pencil notes made on day of visit in the evening [since lost]) made 19th and 20<sup>th</sup> July 1969.

[Here follows a rough sketch of the site to identify the buildings, position of the turbines, etc – see above]

Turbines: T1 no name on it; no one I met knew maker or date. Last used 3yrs ago. The building it served was formerly used as a tape, and later as a biscuit, factory; when taken over by the mill it was only used for storage (almost empty on my visit). Since the turbine was then only used for the sack hoist and formerly for a cup elevator (still in situ), when three years back it needed repair it was replaced by a small electric motor for the sack hoist. Like the other 2 it is, explained a man, a horizontal (i.e, vertical shaft) turbine, water flowing in from outside. [It] has an unencased crown wheel on top and bevel [gear] meshing with it. Eel grid [I think this was in fact just a trash grid]. Inside of the roof of this building is plastered. A roughly built building with wood and metal windows. People showed interest in the beams up in the roof, man said. Building said to be 200 years old [probably not quite]. Connected to other building by wooden walkway of great length.

T2 by Gilkes of Kendal (name on it). Man in office said it was installed 1931; other man said he himself didn't know its age but pointed out a date of reconditioning that was inscribed on one of the operating handles, which was 1937.

T3 by Armfields of Ringwood (name on it). Has pair of governors. Man in mill said it was installed in 1929, he thought; man in office said 1936. Last reconditioned last year. Like T2 its shaft and crown gears are enclosed. T2 but not T3 has a clutch in its shafting. The turbines could drive all the machinery in the mill. One could however be used in conjunction with an electric motor and the other instead of an electric motor. One (I think the T2) was for the grist mill and the other for the flour.

Sack hoists in part of the mill with the turbines – with wooden faced clutch in each. Control cord pushed shaft along to engage clutch. Also cord to a brake on a pulley on drum shaft. I saw 2 hoists. Man said there were 3 in there altogether, of the same type.

Previous waterwheels The waterwheel (I was told [there] was only one [ i.e, only one for the mill, as opposed to the “biscuit factory”]) was in the open where the house of T2 now stands. Must have been undershot or

up to level breast. On the 200 year old building [so called, =“biscuit factory”] the marks of the waterwheel and the hole of its shaft can still be seen just ahead of, and partly in, the house of T1. The shaft is at about present water level. The marks indicate a 13ft dm wheel or slightly more (measured); since height of water depends on weir, which presumably has altered little, must have been a level breast wheel.

In the main part of the mill i.e, 1745 and 1880's: crowded with machines, but noticeable were

Top floor (4<sup>th</sup>) Wire mesh bran sifter with openwork auger underneath, 2 or more grades of mesh [presumably a reel, with open flights on the outlet auger], and sack hoist.

Next down (3<sup>rd</sup>) Dresser of the “xylophone and rising air” type [purifier].

Next down (2<sup>nd</sup>) Dressers consisting of a polygonal wire reel with a polygonal silk reel underneath [evidently two reels in one casing]

Next down (1<sup>st</sup>) The rollers. Man said the corn went through two lots of breaks, the rest [=reduction rolls] “scraped” flour from bran. I think that the hanging-from-canec sifter [plan-sifter] was on this floor.

Ground floor Drive from turbines. Storage space. No bins apparent in this part of the mill, though I think [there is] a silo elsewhere.

( n.b 1745 part has only about 3 storeys).

In the modernish building [see plan] were Carter discs (for removing different sized grains) a type of plane sifter (removed stones etc) [presumably a gravity separator]. In the mill also were 2 Eureka separators, one of which was working driven by electric motors on my visit; man said there were more modern machines made but the Eureka's were “very reliable”.

n.b Old mullion windows (blocked in, I think) in front part of 1745 mill.

In T1 house 2 bottle jacks, disused. They used to be used for steam engines at the mill 30 years or so ago. [I remember suggesting, with uncharacteristic cheek, that I could perhaps be given one of the jacks, but was declined]. Also mill bills in this building.

Turbines were being serviced on day of my visit so no work being done by them. Man said that they were little trouble.

Historical information herein contained from people at mill.

Mill now Greensmiths Ltd. Grid ref SK263240.

T2 and T3 and presumably T1 had hand wheels for vanes inside mill and sluicgate controls outside. Presumably governors of T3 controlled vanes.

J.A.Bedington 20 July 1969

n.b. Labels on the spouts saying which machines they connected. Polishing effect of flour dust. Strictly no smoking.

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My photos of this mill:

*B/W photos:* Taken 18<sup>th</sup> July 1969 – ST75a, Front (head side) of the 1745 mill, later mill building behind; ST75b, back of “biscuit factory” with side of 1745 mill and of later mill building; ST75c, roller mills in the flour mill; ST75d, plansifter with canes in the flour mill; ST75e, one of the sack hoists in the mill, showing clutch; ST75f, “Biscuit factory”, head side, turbine end; ST75g, marks on wall of “biscuit factory” showing site of waterwheel, and part of turbine house and control gear for sluicgate of turbine; ST75h, “biscuit factory”, roof timbers; ST75i, View of weir from top floor (non-turbine end) of “biscuit factory”.

*Colour slides:* Taken 18<sup>th</sup> July 1969, ST ap 1, front of the 1745 mill building, roof of later (19c) building behind; STap2, “biscuit (tape) factory”, tail side, turbine hse on L, showing built-out staircase; ST ap 3, roller mills inside the 19<sup>th</sup> c building behind the 1745 bldg, powered by water +/-or electricity –(damaged, but I have a digital copy of it of middling quality only); STap4, dressing machinery in the flour mill (apparently purifiers).