

MILL-RELATED OCCUPATIONS IN WALES: EVIDENCE FROM 19TH CENTURY CENSUS RETURNS

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One of the most frequently asked questions in Welsh molinology is, ‘how many mills were there in Wales in the past?’ People have tried scanning through old maps to try and plot the locations of mills. John Crompton, for instance, has examined every 25” Ordnance Survey map of Wales to identify possible mill sites (WMS Newsletter No. 129, p3). Others have pored through old documents – manorial records, Inquisitions Post Mortem, estate rentals, Land Tax Assessments, Tithe maps and Schedules, business directories – the list is endless. All these documents can give clues as to the whereabouts of mills in the past. Other potentially useful sources of information are the Census returns that were carried out each decade from 1801. It occurred to me that if we knew how many millers there were, then that would give an indication as to how many corn mills were operating at that time (weavers, fullers etc. are also listed by profession, so ‘Millers’ in the census data seem to refer specifically to corn millers).

Census returns for the year 1841, and thereafter, note the occupations of people recorded as living in Wales on 7 June, the date of the Survey (earlier Censuses do not record occupations). These show that there were a total of 1,425 people who described themselves as ‘Millers’, of whom 1,368 were men and 57 women. Of course, some mills may have had more than one miller, and equally, there may have been some

mills that were attached to farms where the owner may have called himself a 'Farmer' rather than a 'Miller'.

Counties with relatively low population numbers tended to have correspondingly lower numbers of 'millers' (and, presumably, mills). Thus we find that Brecon (population 55,603) had 95 millers, Merioneth (39,332) 75, and Radnorshire (25,356) just 48. Most counties had between 100 and 150 millers, though Denbighshire (88,866) boasted 169 and, perhaps surprisingly, Montgomeryshire (population 69,219) had 160.

Four decades later, the 1881 Census showed a slight increase in the number of corn millers, up by 275 to 1,700, of whom 67 were women (Table 1). This may reflect an overall rise in population across Wales (though there were significant variations – see below) and the increased demand for flour, though one must remember that by now several large steam-powered industrial mills had been established which could mass-produce cheap flour. Spillers opened such a mill in Cardiff in 1854 (destroyed in a fire in 1882). Eight counties showed a rise in the number of millers. Some of these were slight; the number of millers in Brecknockshire for instance went up by just 6, from 95 to 101; Denbighshire increased by 10 (from 169 to 179) and Caernarfon went up by 18 (from 142 to 160). Others showed a more significant increase; the number of millers in Merioneth went up by 34, (75 to 109); Montgomeryshire by 39, (from 160 – 199); Monmouthshire by 49, (122 – 171) and Glamorgan by 65, (134 to 199). But the largest increase was found in Cardiganshire where the number of millers went up by no less than 81 (from 111 to 192).

Other counties, however, showed a drop in the number of millers; Carmarthenshire went down by 30 (152 – 122); Radnorshire down 10 (48 – 38) and Pembrokeshire down 8 (133 – 125). There were more significant drops in Flintshire, down by 45 (from 106 to 61); and Anglesey down by 56, where the number of millers more than halved from 100 in 1841 to just 44 in 1881. There were corresponding drops in population numbers in both Pembrokeshire and Radnorshire over the same period (down by 4,365 and 6,833 respectively), but the largest drops in the number of millers also coincided with the two counties showing the largest drops in population, namely Anglesey (down by 15,750) and Flintshire (down by 21,145). One of the great themes of Victorian history in Wales is the marked overall growth of the population caused by the Industrial Revolution, but a fall in the population of the rural counties as workers flooded to the better-paid jobs in the south-east. Interestingly, whereas the number of millers recorded in the 1881 census returns comes to 1,700, the actual number of buildings identified as corn mills on late-19th century Ordnance Survey maps, amounts to just 1,217. This could be explained by there being more than one miller working in some mills, or there may be more corn mills awaiting identification.

In addition to millers, the Censuses also record other mill-related occupations. In 1841, 7 men in Anglesey were described as ‘Millstone Makers’, presumably working in one of the millstone quarries at Penmon near Benllech. By 1881, their number had fallen to 3, again all in Anglesey. There is no mention of any millstone makers in Monmouthshire, where millstones had been quarried at Penallt, Redbrook and Treleck

for hundreds of years. Were they listed as ‘quarry workers’ perhaps, which would have made it more difficult to link them specifically with millstone-making? The millstone quarries in Monmouthshire are believed to have ceased production in the 1870s.

The Census returns also show that there were no less than 216 millwrights in 1841, of whom 23 were aged under 20. In 1881, there were 203 millwrights. Interestingly, there was only one ‘Millstone Dealer’ noted in the 1841 Census, and intriguingly he lived in Merioneth. Did he have a monopoly of the trade in millstones in Wales or, more likely, were most millstones purchased by millwrights directly from the quarries or, in the case of French burrstones, from one of the many firms which made and sold them? According to D. Gordon Tucker¹ about 70 firms in Britain manufactured French-burr millstones in the 19th and early 20th centuries.

¹ D. Gordon Tucker¹ *Millstones, Quarries and Millstone-Makers*, Post-Medieval Archaeology, Vol II, 1977, Issue 1

Table 1 Comparative Occupations listed in 1841 and 1881 Censuses

County	1841			1881					
	Males 20+	Males -20	Females 20+	Females -20	Total	Males	Females	Total	
Anglesey	A.	92	7	1		100	42	2	44
	B.	6				6			
	C.	4				4	3		3
Breconshire	A.	86	8	1		95	98	3	101
	C.	20				20	5		5
Caernarfonshire	A.	136	6			142	159	1	160
	C.	24	4			28	15		15
Cardiganshire	A.	99	6	6		111	169	23	192
	C.	8				8	8		8
Carmarthenshire	A.	134	3	15		152	111	11	122
	C.	20	3			23	15		15
Denbighshire	A.	146	18	5		169	178	1	179
	C.	23	2			25	10		10
Flintshire	A.	102	4			106	60	1	61
	C.	35	5			40	9		9
Glamorgan	A.	122	9	3		134	195	4	199
	C.	27	4			31	59		59

County	1841				1881			
	Males 20+	Males -20	Females 20+	Females -20	Total	Males	Females	Total
Merioneth	A. 71 C. 3 D. 1	3 1	1		75 4 1	106 3	3 3	109 3
Monmouthshire	A. 120 C. 30	2 3			122 33	169 55	2	171 55
Montgomeryshire	A. 144 C. 14	12 3	4		160 17	192 7	7	199 7
Pembrokeshire	A. 111 C. 12	2 1	14	6	133 13	119 9	6	125 9
Radnorshire	A. 47 C. 3		1		48 3	35 5	3	38 5
WALLES (Total)								
A. Millers	1,290	78	51	6	1,425	1,633	67	1,700
B. Millstone makers	7				7	3		3
C. Millwrights	193	23			216	203		203
D. Millstone dealers	1				1			
Total					1,649			1,906

Table 2 1841 Census – Ratio of millers to population

County	Population	No. millers	Ratio of millers : population
Anglesey	50,891	100	1 : 508
Breconshire	55,603	95	1 : 585
Caernarfonshire	81,093	142	1 : 571
Cardiganshire	68,766	111	1 : 484
Carmarthenshire	106,326	152	1 : 699
Denbighshire	88,866	169	1 : 525
Flintshire	66,919	106	1 : 631
Glamorgan	171,188	134	1 : 1,277
Merioneth	39,332	75	1 : 524
Monmouthshire	134,355	122	1 : 1,101
Montgomeryshire	69,219	160	1 : 432
Pembrokeshire	88,044	133	1 : 661
Radnorshire	25,356	48	1 : 528
Total	1,045,958		1 : 734

The ratio of millers to population is also interesting and quite revealing. Dividing the population of each county by the number of millers gives us the ratio. Thus we find that, on average, in Wales in 1841, there was 1 miller for every 734 of population (Table 2). This figure is slightly skewed by the two major industrialised centres in south Wales, namely the relatively heavily-populated counties of Glamorgan and Monmouthshire, with recorded populations of 171,188 and 134,355 respectively, with over a thousand people per miller. If these 2 counties are taken out of the calculation, then this gives an average of 1 miller to 634 people. However, this is counterbalanced by some of the rural counties, such as

Cardiganshire and Montgomeryshire, which had relatively high numbers of millers in relation to their populations.

Table 3 1881 Census - Ratio of millers to population

County	Population	Increase or decrease since 1841	Millers	Ratio (1 per x)
Anglesey	35,141	-15,750	44	1 : 799
Breconshire	54,140	-1,463	101	1 : 536
Caernarfonshire	123,781	+42,688	160	1 : 774
Cardiganshire	95,137	+26,371	192	1 : 495
Carmarthenshire	111,255	+4,929	122	1 : 912
Denbighshire	112,940	+ 24,074	179	1 : 631
Flintshire	45,774	-21,145	61	1 : 750
Glamorgan	518,383	+ 347,195	199	1 : 2,605
Merioneth	68,278	+ 28,946	109	1 : 626
Monmouthshire	234,332	+ 99,977	171	1 : 1,370
Montgomeryshire	76,196	+ 6,977	199	1 : 383
Pembrokeshire	83,679	-4,365	125	1 : 669
Radnorshire	18,523	-6,833	38	1 : 487
Total	1,577,559			1 : 928

The Census of 1881 shows an increase in the population of Wales of more than 33% (up by 531,601 from 1,045,958 to 1,577,559) (Table 3). By now the average ratio of millers to population is 1 : 928. Again, the industrial counties of south Wales, which between them accounted for nearly three-quarters of a million people, serve to skew the figures somewhat; and if these two counties are taken out of the calculation then the average ratio of millers to population becomes 1 : 620. Nearly all the counties showed a decrease in

the number of millers relative to the population. The only two exceptions were the rural counties of Montgomeryshire and Radnorshire where there was a slight decrease in the ratio of millers to population from 1 : 528 to 1 : 487 in the case of Radnorshire, and from 1 : 432 to 1 : 383 in Montgomeryshire.

Overall, the figures for the ratio of millers to population would appear to correspond with the findings of David Ll. Davies, who, in his detailed survey of Felin Lyn, Pontfadog in Denbighshire, calculated that there were about 550 people within its territory¹. Discussing the mill's customers, Davies makes the point that the pattern of settlement in rural Wales was quite different to that which prevailed in much of England at that time. Settlements were typified by scattered homesteads and farms, rather than the nucleated villages which were encountered across the border. Thus, a single country mill in Wales served quite a large area – probably to a radius of 2 miles from the mill. On average, Davies reckoned that 1 mill in Denbighshire served between 500 – 700 people, which would bear out the figures suggested by the Census returns for that county in 1841 and 1881.

Topographical factors also played a part in determining the proximity of mills to one another. In Cardiganshire, for instance, mills are concentrated where streams fall from a number of plateau steps which mark ancient land levels. In many upland areas, farms had to rely on small two-wheeled carts to carry grain along often quite narrow lanes to the mills. In some instances, donkeys or mules were used – the grain

¹ David Ll. Davies. *Watermill: The Story of a Welsh Cornmill, Llangollen*, 1997, pp 75-76

being carried in panniers strapped on either side of the animals. This might explain why, where the terrain did not allow for good transport routes, several quite small mills might be found within a mile or so of one another. In contrast, the flatter wheat-growing lands such as those found in the Vale of Glamorgan and north-east Wales were relatively more accessible than was the case in upland areas. These were also areas where there was a tradition of sturdily-built four-wheeled wagons which could carry larger loads of corn or flour than could their two-wheeled counterparts elsewhere in the country. Consequently, mills in these areas were sited further apart, in turn resulting in fewer mills and thus fewer millers.

To summarise therefore: whilst the Census returns do not specifically give us the actual number of mills operating in Wales during the early or late nineteenth centuries, they do serve to give an indication as to how many people gave their primary occupation as 'Miller'. By inference, this suggests the approximate number of mills that must have been working at the time – although one must also bear in mind that some of the larger mills may have had more than one miller, and others may not have been included at all if, for instance, the miller had died and had not been replaced at the time of the Census. Also, some mills were attached to farms or smallholdings and the occupiers may have been listed as 'Farmers' rather than 'Millers' (see Note below).

The number of people supplied by a mill averaged about 730 in 1841 and 930 in 1881. However, more people were served by mills in industrial areas in 1841 than was the case in rural areas. Of course, having much higher densities of population

close at hand in the rapidly-expanding iron and coal towns of south Wales, meant that individual mills could more readily meet the demand that was almost literally ‘on their doorsteps’ than was the case with mills in remoter country districts. The arrival of canals also served to improve access into these areas, enabling large quantities of flour to be transported directly into the growing industrial-urban townships.

By 1881, the picture had changed even further with flour increasingly being imported by rail from large industrialised steam-powered mills that were located at ports, such as Liverpool and Cardiff (and later Barry and Swansea) where wheat was being imported from overseas. A steam-powered corn mill (City Steam Mills, re-named The Snowdon Flake Flour Mill by 1882), using a combination of millstones and rollers, was also established at Garth, Bangor in 1870. In the years following the 1881 Census, traditional corn mills went into steep decline with many changing their emphasis to grinding animal feeds rather than flour for human consumption. In any case, few could compete with the fine white flours that were being produced by the new industrial mills, and even fewer could match the low prices that such mills were able to charge their customers. The writing was on the wall for the traditional mills.

Note

The author's great-grandfather, David Evans (1833-1920), is variously described as 'Carpenter', 'Miller', 'Miller & farmer' and 'Baker' in Census returns from 1851 to 1901. He first appears, aged 8, in the Census of 1841, living with his parents and older siblings at Tŷ Gwyn, above Porthmawr (Whitesands), St Davids. Coincidentally, this was the same house where a George Llewellyn and his family lived 40 years earlier when he built the windmill in St Davids. By 1851, David Evans was apprenticed to a local tradesman and was described as 'Carpenter' in the Census of that year. On 20 October 1853, he noted in his diary, in Welsh, [trans.] 'Making sails for the windmill.' Within less than a decade he would be the owner of the mill.

In 1861 (aged 27), he was living in Liverpool and working for a builder. In November of that year, he was offered the post of 'overseer', but before accepting the job, which would have almost certainly meant moving permanently from St Davids, he decided to consult with his family. He set sail on a steamer from Liverpool to Milford Haven on 16 November, 1861. Whilst in St Davids, he heard that the windmill was being offered for sale by auction on the 21st of November. His friends persuaded him to make an offer for the mill, and he was successful, and any plans to move to Liverpool were forgotten. The Census of 1871 shows him (aged 36) living at the windmill with his wife, Margaret (25) and 4 year-old daughter, Claudia. His occupation is given as 'Miller'. By 1881, the family had grown and David and Margaret now had six

children – 4 daughters and 2 sons. David Evans is described as ‘Corn Miller & farmer of 20 acres’ in the Census Return.

Ten years later, in 1891, he is shown living with his wife in the High Street, St Davids, where he had started a bakery business in 1880. His occupation is now given as ‘Baker’ and there is no mention of the mill, even though he still owned it. Ten years later, in 1901, they are still listed in the High Street, but his occupation is now given as ‘Baker & Miller’ and he is also described as an ‘Employer’. Following a particularly severe storm in 1906, the windmill ceased working, and the sails were removed the following year and work began on incorporating the tower as part of a new hotel that was designed by David Evans’ youngest son, Evan Rhys, who was also the last person to have worked the windmill. The Tŵr-y-Felin Hotel opened in 1910.

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Figure 1 St Davids Windmill, photographed about 1900, with David Evans (aged about 66) and his wife Margaret (54) and their seven children. Their youngest son, Evan Rhys (b. 1886) aged about 14, is seated on the right



Figure 2 Stencils were used to mark sacks and bags (for flour) at St Davids Windmill. The initials 'D E' stand for David Evans, the owner and miller, whilst the mill motif represents the windmill

