



The Magazine of the Mills Section of the
Society for the Protection of Ancient Buildings

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July 2020

Mill News



Heroes working overtime
Millers beating the pandemic

Seeing double in Huntingdonshire
Graham Hackney on double cogged
face gears

Virtual milling
National Mills Weekend on line –
an annual event?

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Front Cover: Volunteer Shashika
Poopalasingham with bagged flour at
Charlecote Mill (see page 10).

Picture – Karl Grevatt.

Back Cover: 3D laser survey of
Kibworth Harcourt Windmill

Picture – Terra Measurement Ltd.,
Derbyshire.

Editorial

Our new Administrator, Silvia, joined us at the start of this year, not realising that things were about to change and she would shortly be in lockdown working from home. Fortunately, Silvia was able for a short time to get to know the staff and her way around 37 Spital Square.

I thought Silvia might like to tell you about her work and how she is managing during this period until able to get back to normality and into the office again.

Mildred



Thank you Mildred! It has been my pleasure to join the SPAB (Mills Section) and it certainly has been both exciting and challenging, due to the current climate. I have a deep passion for archaeology, historic buildings and heritage, even more so in the living history which is functioning in our present. The fact that our British mills have operated to provide much needed flour in these times goes to show just how important these amazing feats of engineering are today. This passion has led me to work in the museum sector, most recently for the British Museum as a Senior Administrator, as well as in my education where I obtained a Master's degree in Museum and Gallery management.

When I started my new role at the SPAB Mills Section in January I didn't expect to be working from home in March because of the lockdown, but by then I was working in my new job for two months. Luckily, I have been able to work from home and thanks to the internet I'm still able to see other colleagues from the SPAB via virtual meetings. We also had our first virtual Mills Committee meeting in May. I have previously worked in a team of 12 people,

so working for the Mills Section as the only person based in Spital Square is a bit of a change. One of the most exciting challenges so far was to bring the National Mills Weekend online and I found the high level of excitement generated by members and contributors inspiring!

There is plenty to do and lots of variety as the Mills Section administrator. Some aspects of the job such as financial and committee administration, or working at a charity and membership organisation, tie in very well with my previous experience. I am very interested in Mills Section casework, especially as a lot of cases are unique and require additional research. I am very much involved with the Mill Repair Fund administration and feel excited about every mill we can support. This helps to ensure the necessary preservation of this living history for future generations. Life in lockdown has its challenges, especially when taking on a new job, but it has also allowed me to spend some quality time with my family at home.

Silvia

Hero millers work overtime to beat pandemic

Holgate Windmill

In mid-February we were concerned at our reducing wheat stocks and were struggling to find good quality milling wheat. The offer of some wheat from Heckington Windmill was too good to refuse so we hired a van and drove to a farm a few miles from the mill to bag and load one and a half tonnes of Crusoe wheat. Little did we know how important this wheat would be.

When the coronavirus situation worsened we anticipated a stronger demand for our flour but when the lockdown was announced on 24 March we could not have expected that flour in the supermarkets would all but disappear and Holgate Windmill would be the only source of flour for so many people.

So how to respond to this demand? One problem was that quite a few of our regular milling team could not come to the mill, either through distance travelled or because they felt at risk and needed to socially distance. We also decided it was unwise to have more than three people in the mill at any time to limit our exposure to the virus. So we set up two milling teams of three and milled two or three days a week with extra sessions added when necessary. Facemasks were to be worn at all times and hand sanitiser used regularly to limit the potential for infection (see front cover).

On a normal week we mill around 75kg and this is usually sufficient to service our commercial customers and supply our mill shop on a Saturday. Our first week under our new regime saw us milling just over 200kg and that ensured everyone got their order. The next week we milled a similar amount but demand on Saturday was such that the shop sold out in just over an hour with the queue still stretching well down Windmill Rise. This was with a 1.5kg limit per customer.



The millstones hard at work.

We were disappointed by this – we did not want anyone to go away empty handed – so we decided to increase our milling and the next week commencing 6 April we milled



Holgate Windmill.

just over 390kg consisting of both spelt and wholewheat. That did the trick and we fulfilled all of our commercial orders and the shop remained stocked throughout. There was quite a queue when the shop opened but this thinned out after an hour and everyone got some flour. A great result. In April we milled just over a tonne of wholemeal and spelt.



Bagging the flour.

So this is our milling regime from now on until flour stocks in the shops return to normal whenever that might be. Going through this much grain we were delighted to find a new wheat supplier, coming from a farm near Howden, and a tonne of our new wheat called *Illustrious* – a well regarded Group 1 milling wheat – was delivered to the mill a week ago. Add that to a tonne of spelt which should be with us mid-April and we can mill at the present volume for quite a few weeks.

Of course, although we are producing more flour now than at any time since the mill's restoration, these quantities are small when you consider what the working Holgate mill could produce in a day, often running every day of the week and with a large granary to provide bulk grain storage. It has however given us a small insight into the working miller's world and shown just what we can produce if we organise ourselves and work efficiently.

Hero millers work overtime to beat pandemic – continued

We have introduced many more people to Holgate flour and gained some new commercial customers. Hopefully, many of these will continue to buy our flour when normal shopping service is resumed. Our existing commercial customers have depended on us to continue to provide them with flour and some have been selling out within minutes of receiving stocks so we are now delivering to them twice weekly.

The expectation is that the current situation will continue for some weeks so the volunteers at the mill, in the milling teams, those coming to the mill separately to bag flour and in our Saturday shop, have plenty of work still to do to ensure that flour supplies are maintained. As a community mill we are incredibly pleased that we are able to do our small part at this difficult time and hopefully more frequent milling with a greater flour production will become part of our normal operation in the future.

Steve Potts

Wicken Windmill

At Wicken Mill we decided to stop selling flour direct from the mill at the beginning of the lock-down, for the protection of millers, customers, and villagers.

Instead our supporters can buy windmill flour from two local outlets, Daily Bread in north Cambridge and the Stretham Village Store, which we supply with wholemeal and white flour in larger batches.



*Wicken Windmill closed for flour sales
Picture – Dan Carrick.*

Dan Carrick makes a wheelbarrow run supplying villagers with pre-requested flour – a weekly event.



Dan Carrick on his weekly round delivering flour by wheelbarrow.

Also I'm keeping our long term customer Long Clawson village store supplied as best we can, and there has been a certain amount of decorous passing flour bags over garden walls going on, maintaining distances ...



Dave Pearce delivering flour to Long Clawson village stores.

I would say that Wicken Mill has been busier than at any time since 1900. If we can retain 5% or even 10% of our new supporters it will be a considerable benefit to our efforts to sustain the windmill.

Dave Pearce

Hero millers work overtime to beat pandemic – continued

Redbournbury Mill

We are certainly milling "overtime"! The demand for flour has been incredible.

We last opened the mill on Saturday 21 March. We expected to be busy and decided to open early at 8am. By 7am we had had our first customers and by 7:45 we had a queue of people out of our gates and down the lane for over 50 yards. Our bakery had a similar queue. By 8:30 we had sold nearly two tonnes of flour. We had five people bagging more flour while we were open but sold out of everything by 10:30. By this time the road to the mill was completely blocked by cars. We had vehicles parked on both sides of the lane and no traffic could move. Our neighbours and farmer were completely blocked in and I spent two hours at the end of the road turning cars away. I turned away well over 100, many of which had been driven from London to buy flour. In the week after this we had 13,000 visitors on our website and I had to unplug the phone and set up an automated email response saying we could not supply flour!

Since then I have had to keep the mill closed for flour and bread sales mainly because I know we would be completely overwhelmed by visitors again. I tried to start a delivery service on our website but on the first day had over 100 orders for local deliveries so we had to stop – we needed a fleet of vans and drivers! We now deliver only to coordinators of groups of friends, family or neighbours. We do not advertise this service but even so can only just manage the demand. Under normal circumstances we mill 750-1,000kg of flour per week. At the moment we are milling 3-5 tonnes per week. This is mainly limited by the supply of grain. Without this limit we



Redbournbury Mill.

could mill 24 hours per day and still not get close to meeting demand. We sell nothing from the mill or bakery directly. We supply a few farm shops, BakeryBits and make deliveries to local groups of customers. Our bakery, which typically works for two days per week, is now baking six days per week. We mill at least three days per week and bag flour at least five days. We have bagging tables on the first three floors of the mill. Two people on each floor, 4m apart so safely distanced.

We can just about manage this level of production but only while grain is available. I am very worried about how we can ever re-open the mill and bakery for direct sales; if I were to try now we would be overwhelmed with visitors and cars.



One of the millers at Redbournbury Mill.



One of the bagging team at Redbournbury Mill.

Hero millers work overtime to beat pandemic – continued



Six tonnes of grain delivered to Redbournbury Mill.

We are lucky to have been able to carry on in these exceptional circumstances and it has brought out the best in the local community. I have had lots of offers of volunteer help and lots of coordinators for group deliveries. One customer alone is coordinating weekly orders for 400kg of flour, 600 loaves of bread and numerous cakes. We are also bagging up dried yeast which we have on standby for the bakery if the supply of fresh yeast dries up. We sell at least 250 pots of dried yeast each week.

So yes, we are very busy and I gather it is the same for both traditional and modern mills. Baking has become incredibly popular particularly while the schools are closed and parents and children seem to be baking every afternoon. I wonder if this will continue when we return to "normal"?

Justin James

North Leverton Windmill

North Leverton Windmill is run by volunteers and we, like many mills, are very busy. Although the windmill is closed to visitors, it is still milling every week and supplying local villages, community groups, those supporting the vulnerable as well as our regular shops, pubs (doing takaways) and bakers.

We take orders over the phone, email and Facebook, then when the orders are ready we allocate 10-minute time slots and our customers come and collect. It has worked very well, we keep to the social distancing rules and everyone has been great at helping us to do that.

We appreciate the support from local farmers who have been supplying us with wheat and spelt enabling us to mill much more flour in the last 10 weeks than we milled in the whole of last year.

James and Julie Barlow

Heage Windmill

On Saturday 21 March the wind was strong and milling was good. Stocks of flour and freshly milled flour were in great demand. However, since then the government has tightened limitations on distancing and age risks. The mill is largely operated by people who are retired and our space limitations mean that the two-metre rule cannot be maintained so the Trustees have reluctantly decided to close the mill until further notice.

This left a problem – we still had unsold bags of flour and quite a lot still awaiting bagging. Lynn Allen, our event organiser, had a bright idea – ‘Why not give it away to a charity’. This concept received huge support from our



Jenny Land seals up one of her freshly bagged flour packets at Heage Windmill.



North Leverton Windmill.

Hero millers work overtime to beat pandemic – continued

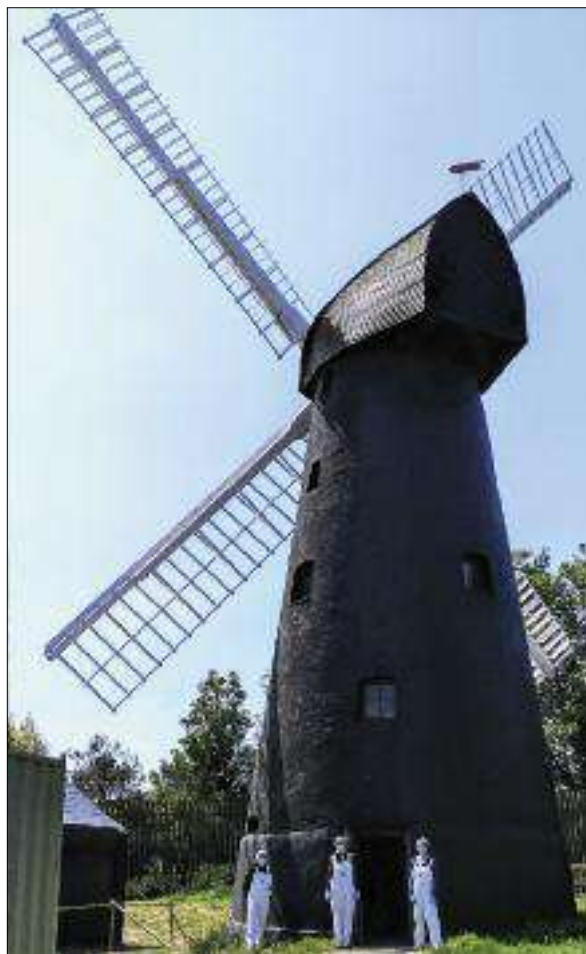
volunteers and it was agreed that a family team would go to the mill and bag the loose flour, during a visit to carry out essential maintenance.



The assembled bags of various grades of flour donated by the Heage Windmill to charity.

Accordingly David and Jenny Land, who live locally, bagged up all the loose flour and, with stock we had, assembled a total of 39 x 1.5 kilo bags of assorted flours! These they loaded into their car and delivered free of charge to a group called Belper Covid-19 Mutual Aid, who will now distribute them to deserving families.

Alan Gifford



Safety first at Brixton Windmill.

Brixton Windmill

Brixton Windmill's volunteer millers have increased production of flour as key workers during the Coronavirus lockdown, while observing the strict UK government guidance on social distancing for everyone.



Sack of flour ready for delivery from Brixton Windmill.



Millstones and bagged flour at Brixton Windmill.

Hero millers work overtime to beat pandemic – continued



Safety gear at Brixton Windmill.

We cannot open the windmill to visitors because of the Covid-19 regulations, but all the flour we produce is delivered safely by our volunteers to our established local retail outlets that remain open or have changed to provide only home deliveries. Even though we have increased production we have been unable to keep up with the demand from existing outlets or supply the many new outlet requests.

We are also donating our flour to two local food banks following a successful fundraising appeal.

Jeff Thomas

Fosters Mill, Swaffam Prior

Mildred has asked me to share with you some of our experiences as a working mill during 'lockdown'. From discussions with other commercial mills, the story I share is by no means unique. Fosters Mill was just one of many traditional mills that found ourselves once again at the centre of our communities, doing what we were intended to do all those years ago! I hope by telling the story and encouraging others to do the same, we will create a shared record of this extraordinary period in our collective milling history, one which, as I say below, hopefully portends a new exciting chapter for us all!

Like all other working traditional corn mills producing flour for sale, Fosters Mill has seen an incredible period of activity since the Covid-19 pandemic hit our shores. Up until March 2020, The Prior's Flour, our brand of organic

flour products, was seeing steady month on month growth, growth which was already testing the available time for milling and the basic processes we use for handling and moving grain and flour around the mill. Sales for the financial year 2019-2020 were already around 12% up on the previous year. We had been milling around 30-35 tonnes of flour per annum, a level of production we were delighted with. In addition to our trade sales to bakeries, restaurants and shops, we were opening our mill shop once a week on a Thursday and typically had between 10 and 20 customers. We were packing and dispatching between 5 and 15 parcels through our mail order service each week.

I had been away the weekend before the lockdown was announced, working closely with Luke Bonwick to organise the Health and Safety Conference held at Heckington. For much of that week, my attention was focused on the conference, but I was well aware of the increasing shortages of pasta and toilet rolls in the supermarkets and threats of a significant change to our lives. By the time I returned to the mill, the mill phone was receiving more calls than usual and our message function on the website was equally busy. On the Friday, gyms and pubs were closed and I remember looking at our mail order interface and being amazed to see 50 orders awaiting me. Clearly, something was up! Our Facebook feed was also getting busy with locals asking about our opening times, as was Instagram. By the end of the weekend, the mill phone was ringing 5-10 times per hour, a few days later I had to remove the products from our online webshop when orders exceeded 150 as I knew we could not cope with



Jon Cook with sack of flour ready for delivery at Fosters Mill.

Hero millers work overtime to beat pandemic – continued

any more. We gave up answering the phone and instead through our answerphone asked people to send us a message through our website. Each day, we were receiving 20 to 30 messages asking about ordering flour, each one received a holding email reply!

After a Covid-19 planning session to work out how we could open to the public and mill/pack flour whilst adhering to the emerging Covid-19 guidance for essential food outlets, we decided to add a Monday afternoon shop opening to our schedule to help supply flour to local people. With a good supply of wheat stored on-farm and delivered to the mill, we set about milling for the anticipated customers, our bakery customers (who had all doubled their orders) and our long list of mail order customers! Our EPOS (shop till) system tells the story:

Thursday 12 March	9 transactions (business as usual)
Thursday 19 March	28 transactions (very unusual number of customers)
Monday 23 March	48 transactions (unheard of!)
Thursday 26 March	45 transactions
Monday 30 March	33 transactions
Thursday 2 April	51 transactions
Monday 6 April	65 transactions

The first Monday opening saw queues of people stretching through the mill yard, down the lane and along the road outside the mill into the village. I was on my own in the shop in order to adhere to social distancing guidelines while my colleague worked in the mill, milling and dressing flour. We simply could not cope, bagging virtually everything up to order, our stock of pre-bagged flour having been exhausted within minutes! Our customers were so very patient, nobody complained, although word quickly spread throughout the local area:

- a. that we had flour; and
- b. that you had to queue!

A major piece of planning was required to rework our processes and milling schedules to enable us to cope with the increased demand. We completed this and were delighted when new volunteers offered to help such that we could create a bagging-up team to work every Wednesday to bag around 350kgs of flour ready for our shop openings, a stock which could be supplemented with newly milled flour while we were open, bagged up away from our waiting customers; all managed while working to keep our two metre distance! We implemented a maximum of 3kgs per product per household and reduced our range as part of these changes.

We thought that with Easter, things would calm down, surely, flour would now be getting back into the supermarkets? We decided to reduce our openings to once per week as the pressure was now taking its toll. The numbers, however, paint a different picture! On the Thursday morning after Easter, between 9am and 1pm, we had 110 transactions, the following week 130. One of the advantages of an EPOS system (we use iZettle) is it records how many repeat customers you have (when the same payment card is used). This data shows that around 60-70% of the customer base is repeat business, both our regular longstanding customers and new customers. We are seeing the same faces each week, having met many new local customers through the lockdown, customers who are still coming back to stock up! We had many requests to make special arrangements for families who were shielding, pre-ordering flour, leaving flour out so that it could be picked up without human contact.

A number of local villages created flour buying groups with one person picking up bulk orders for neighbours and friends. While we did our best to help, the reality soon dawned that simplicity in our processes was essential if we were going to succeed and keep sane!

Throughout, we have continued to supply our bakery and trade customers, although I have to confess, at times it has



Hero millers work overtime to beat pandemic – continued



Bagged flour ready for sale at Fosters Mill.

been a struggle! We have turned 'on' and then turned 'off' our mail order service, building up a bunch of orders before closing the site again in order to fulfil them. The volunteer team have been marvellous and we could not have achieved what we have without them.

As a result of the unprecedented demand, we have been milling between 1 and 1.5 tonnes of flour per week over recent weeks. This has put a huge maintenance pressure on the mill, both working with wind and electricity (we have a hurst frame of French burrs and flour dresser powered by electricity). I want to pay tribute to our millwrights who have worked throughout the lockdown, helping us and other mills on various occasions, adapting their processes and approaches to work while minimising the risk of infection to them and us.

May and now June are seeing an emerging 'new' normal. We are still milling between 1 and 1.5 tonnes per week and while the number of weekly transactions at our shop are now in the 60-80 customer range, we are supplying larger amounts of flour again having removed the earlier restrictions. Our mail order business remains very buoyant and our bakery customers are also enjoying strong trade. So, we are coming through lockdown and it appears this particular cloud has a potentially longer-term silver lining, at least in terms of continuing interest in home baking. It will be interesting to see what the impact of a reducing Furlough Scheme is as more people have to return to work or face a more uncertain future, equally what the impact of longer-term supply strategies will be as regards small-pack flours from the larger roller-mills.

Our working traditional mills have done a wonderful job in raising our collective profile through numerous articles and photo shoots in the national and local press and on television. The Traditional Cornmillers Guild (TCMG) has worked hard to promote member mills. Let's hope we can all continue to benefit!

Some of you may remember a presentation given by Nick Jones, then TCMG Chairman, at our first Crop to Crust conference at the NFU Mutual HQ near Stratford upon Avon. In his presentation, Nick painted a picture of traditional millers being invited to Downing Street for a COBRA-like meeting given our importance to the national food supply. I've long-known Nick is wise and sage-like; his story came very close to being true!

Jonathan Cook

Whissendine Windmill, Rutland



The cavalry arrived to repair the broken fan in the middle of the flour mania – John Bedington and Johan Vanderstelt came to the rescue (photo above).

Nigel Moon

Charlecote Mill

At the start of lockdown I had visions of a business with no customers and no demand. Who would have guessed that just a few days later historic buildings and traditional craft would become a cornerstone of baking needs in Britain. Almost overnight demand increased several fold, demand reached from my normal local delivery area to enquiries from all over the UK and production increased from my usual 1.5 tonnes a week to over three!

Of course nature has played its part, we traditional mills can only produce what our water or wind levels and old machinery allow but I think that every traditional mill up

Hero millers work overtime to beat pandemic – continued



Charlecote Mill.

and down the country has played its part in keeping the nation supplied with flour.

Shashika Poopalasingham (see cover photo) has been volunteering with me for about three years now. During the pandemic when I had to send my other volunteers home to keep them safe she stepped up and has been with me every working day.

She's been an absolute star and without her I wouldn't have coped with the enormous demand. She's done everything from moving grain, packaging, cleaning and keeping me sane!

Karl Grevatt

Barony Mill, Orkney

We were milling until the end of March when we'd milled all we needed from last year's harvest. Usually we open in May to visitors but of course we haven't been able to do that.

However, our miller Ali Harcus is still working dealing with deliveries, packing and a big increase in online orders.

In addition we have last week become an international operator! We were delighted to receive a big order from the USA and are hopeful that this will be the start of a successful relationship.

The first photo shows Ali stoking the fire to dry the grain (we use 'scrubs', the husks from the grain, no other fuel, so it's very sustainable – in effect, the husks of one tonne of grain dries the next tonne). And the second photo shows him turning the drying grain.



Stoking the fire of the kiln at Barony Mill.



Turning the drying grain at Barony Mill.

Susan Tyzack

Wessex Mill Clarks (Wantage) Ltd

Mildred

This family-run roller mill, although not a traditional wind or water powered mill, is nonetheless a mill with a history going back to 1895 and has been producing award-winning flour.

As a miller myself, I used to buy white flour from this mill until my dressing machine was repaired. The flour bags (25kg) had a local statue of King Arthur in blue on the front. The mill must have been one of the first to use the statue to symbolise Wantage, as is frequently done now. The mill has greater claim than most, being the town mill, and probably the mill of an ancient royal villa that belonged to the Kings of Wessex and possibly to Alfred himself.



Clarks' Wessex Mill, Wantage, Oxfordshire

The original mill at Osney founded by William Henry Munsey in 1895 unfortunately burnt down and with the country short of building supplies after the war, permission to rebuild the mill in Oxford was denied, so the brothers purchased Mr Clark's biscuit flour mill in Wantage to continue milling.

I contacted Emily, who runs the mill now with her father, the fourth generation of the Munsey family to ask how they were doing during the pandemic. She very kindly wrote me a diary of events since March which gives us the idea of just how busy they were.

The mill uses roller mills from the 1940s by Henry Simon.



A Henry Simon roller mill at Wessex Mill.

Here is Emily's story:

Hi,

Things are now fairly calm here. Wheat wise we had an option on about 12% more wheat than we would usually use in a year. So we've gone bought that and milled it and then bought another few piles from other local farms. All our wheat comes from local farmers and this is the time of year when many tend to realise they have several hundred tonnes more than they thought. We've bought all of that stock and that should hopefully get us through to harvest with enough for a gradual change on to new crop wheat. We've got a few contracts on for old crop in August as well, which we know we can get in early if required. The direct link to farm makes the sort of quick changes we've seen in the last few weeks fairly easy to deal with.

If I separate the production into sections it's probably easier to describe:

March

In early March demand took off for both bakeries and prepack. We split and isolated shifts into sections with our mill manager taking over the night shift with added staff and packing. Lorry drivers no longer allowed into buildings. No visitors to site, closed the mill shop. Previously the night shift just milled flour; now they milled and packed small and large bags. My father Paul went onto running the mill 2-10pm. I ran the various shifts that run 6am-4pm. We ran various Saturday and Sunday shifts to pack small bag flour and mill.

April

Bakers' trade dropped off. Continued as above. We added a back shift packing small bags 2-10pm. Our busiest week we produced 500% more prepack than prior to the crisis.

Wessex Mill Clarks (Wantage) Ltd – continued



Signs in the mill for social distancing.

May and June

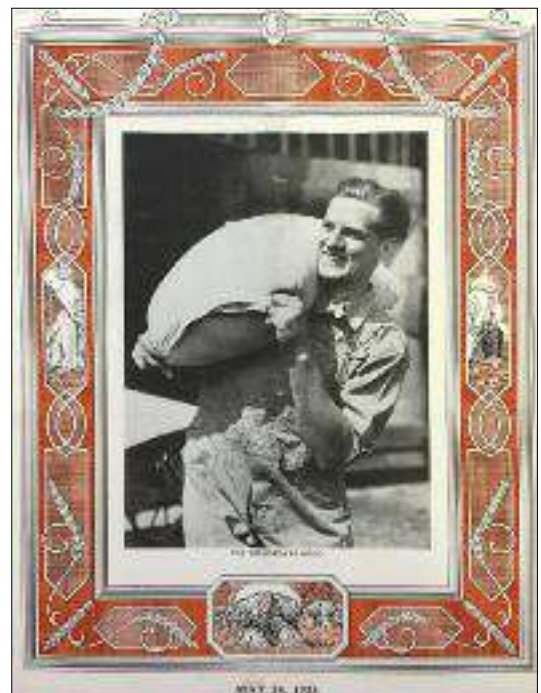
Brought the mill manager back on to days as I was suffering from exhaustion and the night shift were now self-sufficient and only needed to pack small bags. Bakeries continue to be a little quiet but with more re-opening every week. Prepack is slowing but still much increased compared to prior to the crisis.

During this time period we have trained someone to do every job in the mill except for lorry drivers, engineers and millers. Staff have had to continuously learn new skills and be transferred to new jobs.

Kind regards,
Emily



Emily looking at the new local crop of wheat : “I got the chance to visit one of the farms we buy wheat from and have a look at some we were likely to purchase. Harvest is such a huge part of the milling calendar. One two- to three-week period sets off what we’ll be able to achieve for the whole year. This Crusoe wheat looked excellent and we’re hopeful for a harvest in 2020 of quality similar (although I may be being slightly optimistic).”



Cover illustrations from The Northwestern Miller.

The Mills Archive: continuing to provide archive and information services during a pandemic

Liz Bartram and Elizabeth Trout

It is important to us that we continue to communicate with and provide online services to our users worldwide

“The world turned upside down”

This is just one way of describing the unprecedented impact of Covid-19 on our health, lives and work. In line with other archives and libraries, the Mills Archive library and offices closed on the 18 March and staff and volunteers quickly put in place new ways to work at home. We continue to preserve our records of milling history, answer enquiries and keep up our team spirit and morale.

Working at home, we continue to provide most services during the lockdown

Working from home initially proved a challenge but we have defeated various technical issues to access work files and email. It is important to us that we continue to communicate with and provide online services to our users worldwide.

The Mills Archive began as an online archive in 2002. Prioritising digital communication over the years has meant we are able to provide an almost seamless service. We are not answering the telephone or accepting visitors but please get in touch with us via the contact form millsarchive.org/get-in-touch/. We shall answer your enquiries as best we can, though it may take a bit longer.

Our archivist, Nathanael, can offer advice on collections and how to keep archival material safe.

Our continually growing catalogue contains more than 85,000 entries from 263 collections featuring almost 67,000 digital images which you are free to download and collect at catalogue.millsarchive.org/. You can also download the much bigger, higher-resolution master copies for a fee.

Our website has been given a new look and, more importantly, speeded up by moving to a new platform. Worldwide we now attract almost 200,000 virtual visitors each year. Are you one of them? The number of new users this last quarter has gone up by 22% compared to the same period last year. Clearly for a small independent charity we are providing a valuable service, not just to people in lockdown!

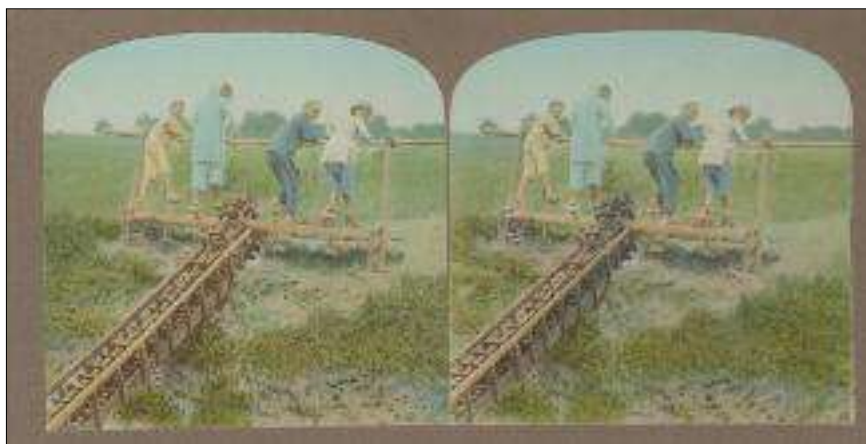


Mills Archive newsletters.

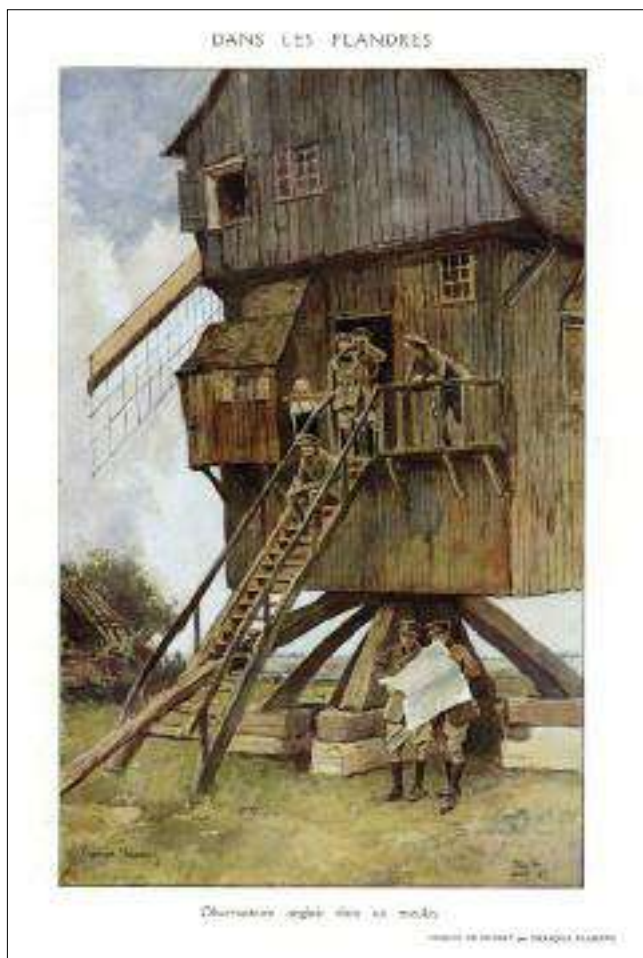
Spreading the word and collecting stories of mills making history

We are not just passive, waiting for queries or website visits. We are actively encouraging interest in the history of milling by telling stories and sending them out in our emailed newsletters. These are attracting a lot of attention and topics from the last few weeks include:

A picture paints a thousand words: describing some of our stereographs including one of a Chinese family working a treadmill.



*Family treadmill irrigation of a rice paddy.
Picture – Mildred Cookson Collection.*



*British military observers at a Flemish mill.
Picture – Mildred Cookson Collection.*

Mills at war: featuring Flameng's 1918 painting of British military observers at a Flemish mill, apparently Saint-Jans-Capel.

Keeping it in the family: Find the miller, find the mill:
Our database of milling ancestors exemplified by the Donald Muggeridge photograph of RA Wright and Will Lowe at Friston.

Mystic Mills: mills have often featured in myth, fable and religious symbolism. The German altarpiece shows a man, a lion, an ox and an eagle pouring grain into a hopper. These represent the gospel writers and the grain is the gospels. The twelve apostles work the mill and a scroll emerges to be caught, in the form of the infant Jesus, by the four 'fathers' of the western Catholic church, Ambrose, Augustine, Gregory and Jerome.

Previous titles in this popular series have included: Milling by muscle power; The grind mill songs of rural India; The Milling Industry's response to Coronavirus; Silk mills, windmills and gunpowder mills; What the Nation Kneads. To sign up for these newsletters simply enter your email and interests on the form on our homepage millsarchive.org



*RA Wright miller at Friston, Suffolk (right) and Will Lowe, 1939.
Picture – Donald Muggeridge Collection.*



Mystic mill depicted in altarpiece at Retschow Church in Germany.

The Mills Archive is not just a repository for milling collections; it is very relevant to society today. We want to collect stories about milling history in the making. Everyday stories, not just triumphs and disasters! In an age of ephemera and social media it is all too easy for current events to fade from memory and we need to preserve these footprints in the sands of time before they are lost to tomorrow's historians.

Who could have predicted that the demand for flour would soar? Nathanael is collecting stories about traditional and modern mills working to meet the demand for flour during the lockdown. Please send him stories you hear, particularly those involving the human element. The easiest way is by emailing archivist@millsarchive.org

"New normal"

Another phrase, heard frequently as we pave the way out of lockdown, underlines how we are developing new ways of working. Of course the initial steps will be gradual; we hope to return to Watlington House as soon as possible and Covid-safe, but it will be some time before we will be able to welcome visitors.

We are using the enforced changes in working practices to analyse the way we operate. The Mills Archive has

thrived by thinking outside the box, adapting to change and new approaches. We will invest more in training and technology so that as a charity we can better engage with our beneficiaries and as a national heritage guardian improve our services to the benefit of mills and their world.

Our emphasis on digital has meant we have been able to offer a wide variety of interesting and educational material to home-bound people, who may have preferred going out to visit mills. It is also attracting new audiences. During May 2020 our number of new users rose to 23,000. Of these 19,000 were from the UK, more than 70% up on the same month last year.

This interest in our work is very motivating and we hope it will lead to more people developing an interest in mills and milling. We are totally separate from the SPAB, but with many Section members supporting us we are putting in plans to handle the increased workload.

We need to continue investing in our website and increase the funding of our "backroom" information services. Both form a vital part of our work and yet are the most difficult areas to finance as funders usually prefer specific projects with end dates – and we intend to keep going!

Owlsworth IJP Care and repair of historic structures



Specialist conservation contractors with a dedicated and highly experienced
Millwrighting team,
Experts in both wind and watermills. We offer mill owners the following services:

All aspects of mill repair, construction and maintenance

Traditional Ironmongery

Stone dressing

Pattern making

Complete project management

Timber framing

Directly employing a large carpentry team, blacksmiths, stonemasons, lime plasterers,
brickworkers

And with our own lime mortar production facilities, Owlsworth IJP are ideally positioned to
provide a

Folic Acid Fortification Update

Jim Bailey

You may remember we asked members last year to take part in the government consultation on whether to mandate the fortification of flour with folic acid. It is considered that increasing folic acid in our diet will reduce birth defects, and fortifying flour with it is seen as a relatively simple way of achieving this. However, for traditional mills this could mean major cost implications in installing expensive machinery even if it were allowed in these listed buildings.

So, what's been happening? Despite an election, Brexit and Covid-19, progress is being made! With the consultation period completing last September, two government departments, DEFRA and DHSC, have been analysing the feedback from the consultation and preparing a paper for ministers.

The Traditional Cornmillers Guild, SPAB Mills Section, and mill owners formed a pressure group to lobby government and local MPs. As part of that process, I spent a day in early February with Jon Cook and Jenny Hartland taking representatives of the government departments round a wind and watermill to highlight the problems involved in fortifying flour in these mills and asking for an exemption for traditional mills. They were very receptive to the issues we raised and our proposal to request an exemption to the fortification of flour in traditional mills.



Jim showing his MP, Dr Caroline Johnson, the burst frame at Heckington Mill.

Picture – Jim Bailey.



The government departments visiting Foster's Mill.

Picture – Jon Cook.

The Covid-19 pandemic will inevitably slow the ministerial process down, but we are confident that a strong case for traditional mills to be exempt from having to fortify flour with folic acid has been made. As part of the lobbying process, our local MP at Heckington, Dr Caroline Johnson, also visited our mill and was very supportive of our stance and has subsequently raised the matter in the House of Commons.

As soon as we have any more updates we will let you know.

Thank you to everyone who submitted comments to the consultation.

Letters to the editor

In response to Graham Hackney's article (The value of Huntingdonshire Mills at Domesday. April 2020) I would suggest that there is another factor affecting the value of Domesday mills: that is demand from the urban areas. This is apparent from the mills around the Boroughs of Huntingdon and Cambridge.

The mills around Cambridge are those listed in Cambridge, Grantchester, Trumpington and Cherry Hinton with a total value of £20 / 5s, spread over 13 mills nominally listed in Domesday. There were probably only five or six separate mill sites. All are of high value except Cherry Hinton. These high values are not due to strong flows. At Grantchester the mean flow on the Cam is about 2.5m³ per second which compares with a mean flow of about 14m³ per second at Houghton on the Ouse (Keith 2017, A study of Domesday Watermills the Cambridgeshire landscape Proceedings of the Cambridgeshire Antiquarian Society, Vol CVI).

Huntingdon was served by mills in Huntingdon, Hartford, Godmanchester, Brampton and Wyton, with a total value of £17 / 12s. All are high value except Wyton.

In addition, there are mills listed at Houghton and the Hemingfords with a total value of £7 / 10s / 8d. Perhaps these mills served the demand from both Huntingdon and St Ives and the mills downstream, which could not construct watermills because the water levels little above sea level cannot provide a tailrace.

There would have been urban milling demand in other locations. For example, in Domesday in one mill in Battersea on the lands of the Abbey of Westminster there are nominally listed seven mills with a very high total value of £42 / 9s / 8d, which no doubt reflected the demand from London across the river. Unfortunately, we cannot follow up the milling demand from London because the City itself is absent from Domesday. The tide-mills, which probably then existed on the Thames, were not recorded in Domesday.

The level of values can be put in perspective by noting that in Domesday the annual rental value of a ploughland, about 120 acres, tends to be about £1. Thus, the Cambridge mills listed above are about as valuable as 2,500 arable acres, the Huntingdon mills including Houghton and the Hemingfords are as valuable as 3,000 acres and the Battersea mills as valuable as 5,000 acres.

Simon Keith

I was fascinated by your article "A Musical Miller" in the April 2020 Mill News. As a miller and organist myself, I can see clearly the links between organ building and millwrighting (wood, metal, precision engineering and everything on a large scale).

I actually did an apprenticeship in Organ Building before I went to university, long before I found traditional mills! I did chuckle at the idea that an old bolting chest was used for organ pipes, wind-chest and bellows – it must have been a huge bolter and of superior quality to many I have seen!

The whole article reminded me that there was (and perhaps still are) a few pipe organs installed in UK watermills (windmills oddly don't lend themselves). As a kid growing up in Norfolk, I was aware of Jim Crampton's Wurlitzer and Compton organ installations at Oxnead Mill on the River Bure. There is a fascinating video showing the way a water turbine was used to power the blower to provide wind for the instrument – see <http://www.eafa.org.uk/catalogue/5092>. You can also see the instruments being played. If anyone knows of the current situation at Oxnead and the current location of the instruments which were once there, I would be interested to learn more. I understand the Wurlitzer was removed but that the Compton organ, at least until recently remained.

Equally, if anyone else knows of other organs in watermills, let's get a list together. I've had to settle for an electronic church organ at Fosters Mill. It still does a thrilling rendition of "I do like to be beside the Seaside" in the style of Reginald Dixon (which gets some strange looks from punters coming to the mill)! I don't think my other half would be too pleased if I were to acquire a Wurlitzer for the mill house, much as I'd like to..!

Jon Cook

Casework Report

Shipley Mill/King's Mill, West Sussex

An application for planning was submitted to Horsham District Council for King's Mill for works to facilitate the change of use of the engine house and ground and first floors of the windmill to form a three-bedroom residential property.



*Shipley Mill.
Picture – Ken Preece.*

King's Mill at Shipley is a highly significant windmill, listed at Grade II* as a rare survival of a smock mill in working order. The SPAB Mills Section has objected to planning permission for the following reasons: 'As a listed building it is important that the significance of King's Windmill should be sustained. We feel the current application fails to do this. The Design and Access statement suggests that the applicants 'are mindful of continuing the maintenance regime and are seeking to create a sustainable plan for the future by adapting the mill to put in place a user who through occupancy will continue the maintenance regime and generate an income to sustain it.' However, we are concerned that domestic occupation is unlikely to be compatible with use as a working mill.' The outcome of the application is currently unknown.

Blackpool Mill, Pembrokeshire, Wales

An application was submitted to Pembrokeshire Coast National Park Authority for Blackpool Mill for the conversion and restoration of the existing mill building and ancillary buildings to provide a heritage tourist facility (variation of condition 2).

Blackpool Mill was built in 1813 and is listed Grade II*, a category described by Historic England as 'particularly important buildings of more than special interest' and reserved for just 5.5% of listed buildings. The mill is described in the list entry as 'an exceptionally fine industrial building in the functional tradition, imposingly situated. It survives virtually intact and includes a full working set of machinery'. It is set within a Site of Special Scientific Interest (SSSI). The SPAB Mills Section objected to the application. The outcome is currently unknown.



*Blackpool Mill
Picture – Mills Archive.*

Quidhampton Watermill, Hampshire

Basingstoke and Dean District Council received an application for Quidhampton Watermill, Grade II listed, for the demolition of existing brick lean-to extension and porch to the Mill House and erection of a new single-storey extension to the North West/South West elevation including various external alterations and erection of a new ancillary garden building to create an artist studio and workshop.

The concern from the Mills Section is the scale of harm to the overall significance of the Mill House and attached mill. Paragraph 196 applies, meaning that the proposal needs



*Quidhampton Watermill.
Picture – Asbok Vaidya.*

Casework Report – continued



*Quidhampton Watermill.
Picture – Asbok Vaidya.*

justification, which in terms of the harm being outweighed by defined public benefits simply is not there as there are no obvious public benefits as the Mill House's sustainable use does not depend on getting this extension, and the extension is not part of a repair programme that solves some issues affecting the Mill House. Although the mill is not affected directly, it is important to the SPAB to consider the whole mill site, so that the social history of the miller and family living at the site is still readable along with the mill and its equipment being preserved. The application status is currently unknown.

High Salvington Windmill, West Sussex

Adur and Worthing Councils have received an application for a property close to High Salvington Windmill for a proposed two-storey rear extension with first-floor balcony and side opaque glass screen, altered roof, partial first-floor side/rear extension over existing garage/utility to east side elevation with first-floor balcony, the construction of a basement and raised terrace.

A member of the Mills Committee has reviewed the documents submitted by the appointed architects and concluded: 'The new designs have followed the guidelines recommended to the Council previously. In particular, the existing ridge height has not been exceeded by the alterations, and the extension to the South has been reduced to a single storey with a terrace over – thus not presenting any additional wind obstruction to the SW of

High Salvington Windmill. Therefore, there is no basis in terms of wind flow for objecting to them.' The application is pending and awaiting decision.

Dunham Massey Watermill, Altrincham, Cheshire

Trafford Council has received an application for Listed Building Consent for Dunham Massey, a grade II* listed Watermill for minor alterations arising from the roof slate renewal and repairs.

The SPAB supports this scheme of repair and also commended 'the level of detail provided in the application, the clarity with which the works are set out and the traditional repairs to be employed (such as re-roofing without a breathable membrane and reinstatement of torching).' The status of the application is currently unknown.



*High Salvington Windmill.
Picture – Guy Blythman.*

If you have relevant expertise to offer and would be willing and able to help with casework, please don't hesitate to contact the Mills Section – we'd love to hear from you.

Mill Repair Fund Report

Ben Mitchell

Marlston Mill – 1865

After a career in civil engineering with a specialism in rivers and floodplains, when Marlston Mill came up for auction some friends saw it and thought of me. The two-acre site on the River Pang included a farmhouse, the mill barn and some ugly outbuildings, but all were in a dilapidated state so this was going to be my retirement project. Although heavily overgrown and in a state of near collapse the mill barn still contained the original gearing and stones for grinding flour, the mill race was sound as was the cast-iron 12ft waterwheel. The iron castings for the wheel and associated gearing had all been produced at the next mill downstream in the village of Bucklebury where their waterwheel had been used to drive the forge equipment at Hedges Foundry.



The waterwheel as found at Marlston Mill.

As a chalk river, the crystal-clear water from the aquifers provided a good base flow to drive waterwheels but if there was not enough rain over the winter to top up ground water levels then the flow could dry up in the late summer. Taking advantage of the free power, there was originally a whole series of watermills along the Pang but, apart from the 'engineered' straightening of the channel and a relocation to the valley edge in order to take advantage of the higher ground for water level impoundment, there is only some evidence remaining of the old waterwheels and mills. Marlston Mill was built in 1865 and, although in much need of tender loving care, was essentially intact and relatively complete so that restoration was not only practicable but a moral duty!!

In order to protect the planning status of the mill barn, an application was submitted to the local council for its restoration, re-using much of the old timber framework, elm board cladding and brickwork. While awaiting the formal planning consent, the main sluices were dismantled and all the oak timbers replaced. Fortunately, the mill had been accurately surveyed by local mill enthusiast, Kenneth Major, in the 1960s such that we were able to scale off the original timber sizes from his drawings to accurately reproduce the sluice structure and access bridge.



An old painting of Marlston Mill

With some financial help from the SPAB Mills Section, a local millwright was engaged to restore the waterwheel and associated machinery. However, with the Covid-19 restrictions in place, progress has been hindered somewhat but the main sluice gate for the wheel, with rack and pinion operation, is now fully functioning. The winding handle was missing but I happen to have a collection of old canal lock windlass handles and one from the River Lea Navigation fitted the bill; it feels good when things like this come together.



The sluice for the waterwheel as found at Marlston Mill.

With help from the various storms over last winter the mill barn came down completely and all timbers with any structural integrity were salvaged. Now armed with a planning consent, not just to restore the mill barn but also to construct a workshop for the storage and restoration of the timbers, work commenced on the workshop which is now complete and providing shelter for all the timbers while the old bricks from the mill barn foundations are painstakingly being dug up and cleaned for reuse. There is still a long way to go but one day we will yet again be grinding flour at Marlston Mill.

National Mills Weekend Online

Ongoing restrictions due to Covid-19 meant we had to rethink this year's National Mills Weekend and on 9/10 May celebrated these hugely important buildings online. We were helped enormously in this by Martyn Taylor, who made a film specially for the Section, featuring interviews, footage and videos of several mills submitted by mill owners, managers and millwrights for inclusion. The result was a delight – shown on YouTube and shared on the SPAB and SPAB Mills Section social media channels.

I would like to thank the following people, mills, organisations, SPAB staff and Mills Committee members for all their contributions and hard work:

Martyn Taylor, Mildred Cookson, Jim Bailey, Ian Clark, Tim Whiting, Ali McClary, Felicity Martin, Cameron Southcott, Terra Measurement Ltd., Brian Pike, Robert Pike, Eifion Griffiths, Amand Griffiths, Richard Vobes, Fred Maillardet, Stacey Cosens, Gary Freeman, Lesley Jones, Kathryn Betts, Geoff Stephens, Bocking Windmill, Bursledon Windmill, Heckington Windmill, Holgate Windmill, Kibworth Harcourt Mill, Melin Tregwynt Watermill, Nutley Windmill, Oldland Windmill, Topcliffe Watermill, Wheatley Windmill and the Mills Archive Trust.

We would like to think this could be an annual event featuring different mills and interviews for those who cannot get to visit all the mills they would like. Let's hope by next May some if not all our mills will be open to the public again.

Online National Mills Weekend Statistics

Martyn Taylor film – 336 YouTube views; 1,926 views of Twitter announcement; Facebook reach – 188.

Other shared images of mills (i.e Bursledon Windmill) on Facebook reached up to 841 people.

15 new followers of SPAB Mills Section page on Facebook.

Instagram site of SPAB Main Section – 151 views of Cameron Southcott's post on Mountnessing Windmill; 173 views of Kibworth announcement; 1,215 views of Kibworth Video.

Other stories of National Mills Weekend on Instagram: viewed by 300+ people.

After National Mills Weekend online – 70 new followers of SPAB main page on Instagram; 35 new SPAB members and 5 new SPAB Mills and Main members.

Mills Section Event Calendar 2020

At this moment all events are cancelled but re-arranged dates will be published on our website and in the October edition of Mill News.

For further details and online booking, please visit www.spabmills.org.uk and click on 'Courses and events'.

To contact us, please email millsinfo@spab.org.uk or telephone 020 7456 0909 (Monday to Wednesday).

The Bourton Foundry

Colin A Smith

The village of Bourton in Dorset is just off the Main A303 road from London to Devon. As the village is now bypassed by dual carriage way, few will know what an interesting site once stood nearby.

In 1750, Daniel Maggs built a factory mill powered by two overshot water wheels to produce heavy linen. The site is also believed to have had a corn mill. A dam had already been built for this purpose and for a property called Bull Pits, which was water powered and had retting ponds for soaking locally grown flax. A little further downstream, Jesse's Mill – a factory for processing flax and manufacturing a hard-wearing cloth – was built in 1820. In this area too, rope walks were built for making several grades of rope. Jesse's factory was almost on the main Shaftsbury Road. Even further down, but equally in sight of Jesse's factory by the bridge was a large blacksmith's workshop powered by an undershot water wheel. Between these manufactories it is said at least a quarter of the village population and surrounding area became employed.

Through marriage Maggs and Hindley set up a foundry on the site built up by Maggs. By the middle 1800s there was an iron foundry, linen and flax manufactory, a tannery plus shoe rope and thread manufactory. The iron foundry became famous for the building of steam engines and water wheels. However perhaps the biggest claim to fame came in 1837, when possibly the largest diameter water wheel in mainland Britain was erected. It was 60ft in diameter and, though several sources give different widths, 2ft seems the most likely. It was made of iron and was breast shot. Photographs taken from several different angles show it towering over the surrounding buildings. As time went by, steam power took over from this huge wheel.

There were at one time two other water wheels on the same site – one for a grist mill, seen in photographs near the main entrance to the left, and a second for the foundry, in a building on the right-hand side. The second foundry wheel must have been quite a powerful one (see photograph of wheel pit) and was probably used as an example along with the huge wheel to help sell the water wheels built by Maggs and Hindley. Steam took the place of water power and from photographs there were probably at least three steam engines.

During the First World War the foundry was extensively used to make Mills bombs, also known as hand grenades. A notice on a main gate states that three million of them were manufactured for the war effort, among other things.

In 1918, towards the end of the First World War, the 60ft wheel was dismantled, possibly to reuse the scrap iron. The site continued making steam engines, edge tools and

agricultural machinery. In 1920, an Armfield turbine was fitted. After the war, the Great Depression occurred and orders became less and less. In the late 1920s, the foundry closed and remained empty for a while. In 1933, the Farma Cream company took over the site and during the Second World War it was busy again for the war effort producing powdered milk. Unigate Daries took over the site and were there until the late 1980s

Six years or so ago, Derek Stidder and I drove past the site. We were going to visit the site of Penselwood Mill, very close upstream of the pond that fed Bourton (part of the river Stour). The whole place was fenced off, covered in graffiti and heavily overgrown with elder, with threatening notices posted on the fencing. Penselwood is another site that had a huge aqueduct-fed water wheel, which towered over the surrounding buildings, most likely built at the aforementioned Bourton Foundry.

That leads us on to the present day. The huge and interesting Bourton site has gone. Driving there to see other sites, I was shocked to see a huge gap where it all once was. I visited the site manager who claimed the site was a death trap, certainly unsavoury behaviour had taken place, and it was not safe. The gates claiming three million Mills bombs have been preserved and part of a chimney marking the removed wheel pit to the 60ft wheel has so far been left in place. The waterways have been changed to make sure the new housing development being built there will be safe from flooding. One of the rope tackle areas will be left as an open space. If you visit today it will be full of small houses, many of the new residents not knowing what a hive of interesting industry took place under their new dwelling.



The preserved gateway.

All photographs by Colin A. Smith

The Bourton Foundry – continued



The site of the 60ft wheel today.

The 60ft wheel may have had an equal in Cornwall or Devon – one 60ft wheel was said to operate an incline plain – but Bourton is the one of which there are some clear photos.



The rubble of Bourton Foundry.

Further on, the buildings mentioned as the first and earliest part of the Bull Pits House complex still exist. The house once said to be attached to the mill is lived in and the land surrounding it converted into a private golf course. One of the waterways is complete and some of the retting ponds are now hazards on the course. The owners are not happy to allow visitors, probably for safety and the benefit of golfers.



The water way to the high-street factory.



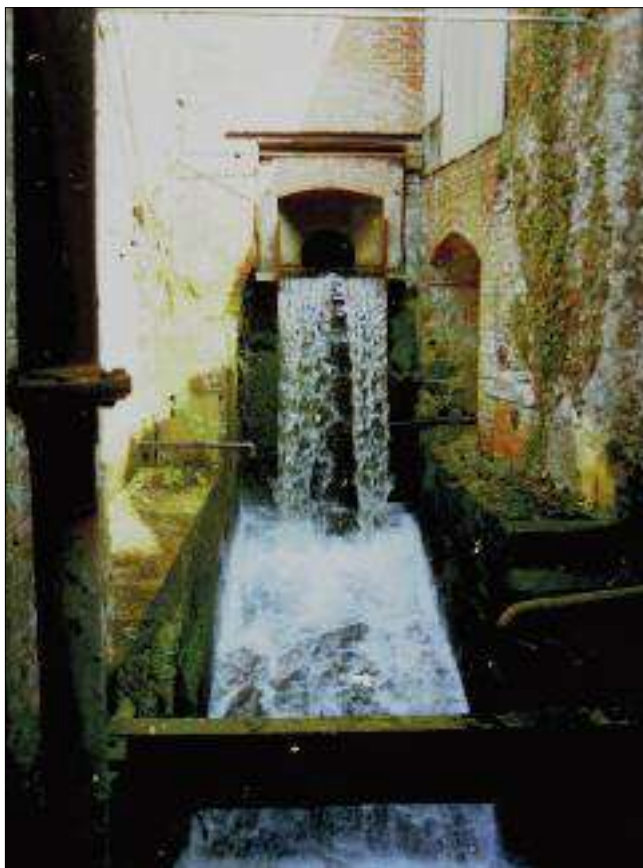
The original wheel pit for the 60ft wheel.

Jesse's Mill, also known as the High Street Factory or Ivy Mill (date stone WJ 1820), which had a steam engine and overshot water wheel, has been converted into a house and heavily altered. Its retting ponds and some waterways still exist. It was fed by an aqueduct and is said to have had a large water wheel. I have been unable to find out its size. I was allowed to take some exterior pictures and was trying to work out where the water wheel had been. I mentioned this to the owner, a Major, who stamped on the floor in his hallway listening for a hollow sound. It turns out that under the carpet is a trap door to the wheel pit and under his large staircase is the site of the water wheel – certainly 20ft or more by what one could see. The elderly owner of what is quite a substantial property would prefer not to have visitors.



The house converted high-street factory with the hidden wheel pit inside.

The Bourton Foundry – continued



The wheel pit for the second foundry wheel.

There are no remains that I have found of the water-powered blacksmith's by the road bridge.

Hard to accept this site has gone. I can see that, though the village nowadays is a quiet area, the site did represent a menace to the locals. I wish they had restored and converted some of the brick-built buildings as well as having to shoehorn in some further housing, but as in many other cases deterioration had been allowed to go too far. I do not know if the site was listed. There is a good selection of old photos of the huge wheel and surroundings to be found on the Mills Archive, or using a search engine and requesting Bourton Foundry.



One of the original buildings.

PROMOTION

Windmills of Sussex

Derek Nicholas

A definitive study of Sussex windmills, past and present, containing original research of over 200 mills, together with over 180 photographs, many rare and previously unpublished. The most complete and authoritative account of Sussex windmills to be published in recent years.

Many contemporary 19th century newspaper accounts of millers, relating to murder, theft and greed, are graphically reported!

The mills are arranged alphabetically by their parish and each entry comprises a description, historical detail and a grid reference; 128 pages, including two location maps.

"It is some years since a comprehensive book on Sussex windmills has been published... best feature of this one is the many excellent photographs which are of extremely high quality"

The Society for the Protection of Ancient Buildings 2016

"A good book and a must for all those interested in windmills"

Sussex Mills Group 2015

"Excellent new book. Many congratulations on getting this book to publication"

West Sussex CC 2015

"Superb book – worth every penny. This is a lovely book for anybody from the windmill lover to those who just want to dip in and out or check a windmill"

Amazon 2015

"The whole lavishly illustrated by a large number of images"

The Countryman 2016

"This absorbing book, packed with wonderful evocative black and white photographs, celebrates

Windmills of Sussex

Derek Nicholas

these extraordinary landmarks"

Sussex Life 2016

"There are many well researched extracts from sale notices and mills in the news; historical detail gleaned from old maps, census returns, trade directories and newspapers"

Suffolk Mills Group 2016

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Double-cogged face wheels in mills of the historic County of Huntingdonshire

Graham Hackney

This account refers to mills in the present County of Cambridgeshire, but all of the examples are in, or originated from, what was previously the historic County of Huntingdonshire (the counties were merged in 1974). Cambridgeshire had (and still has) quite distinctive windmills that fall broadly into three groups.

The first group is a set of post mills, usually (and originally) with open trestles, dating back at least to the 17th century. This group, often with clockwise rotating sails, appears to have extended across Huntingdonshire and adjoining Northamptonshire, into Warwickshire (e.g. Fenny Compton). The second are later smock and tower corn mills with distinctive highly domed caps with fantails braced tightly against the cap and often with particular features such as vertical weatherboarding and again, in some, clockwise rotation. The third are the drainage mills of the Fens, which were a feature of the 18th century local landscape as the peat shrank (following the drainage of the 17th century), but were built well into the 19th century. Cambridgeshire and Huntingdonshire also had watermills and, as in most of lowland England, where these do occur they often have histories dating back to before Domesday.

The feature of interest here are the highly unusual brake wheels found in two of the old post mills and a similar (but perhaps later) pit wheel found in one of the old watermills (Houghton, near St Ives), with a double row of cog mortises on the driving face. This feature would appear to be unique to this area of eastern England, and appears only in mills of considerable age. A reference to this feature is found in Wailes (1954) where he states: "In some post mills two rows of cogs were fitted to the brake wheel as at Friston Mill, Suffolk, the inner row to drive the machinery and the outer row for the drive to the stones. In the mill moved from Ellington, Huntingdonshire, and re-erected at Madingley, Cambridgeshire, the brake wheel and wallower have two rows of staggered cogs, evidently to avoid backlash." (A photograph of the Friston brake wheel in the Peter Dolman Collection at the Mills Archive does not really show this feature, but as it was taken in 1976 changes may have been made since the 1950s.)

One other reference occurs in Shillingford (1979) where, in a description of Madingley, he notes that: "An interesting feature peculiar to this mill is the unusual double row of staggered teeth on the brakewheel and wallower." He then incorrectly states that "no other surviving windmill has this feature". Another example occurred at Mortimer's Mill, Eye, Suffolk where the head wheel had two rows of cogs, probably serving two drives as Wailes describes at Friston.

The brake wheel at Friston Windmill and the pit wheel in Houghton Watermill are cast-iron constructions and probably later than the wooden post-mill brake wheels, but nevertheless would appear to be continuations of this tradition. Staggered double cogs also once occurred on the spur wheel at Heage Windmill in Derbyshire. These were trimmed flush with the outer rim at some time to allow cast-iron cog sections to be fitted later, but the tenons are still visible (see page 6). This feature is also reported from Londonthorpe Watermill at Manthorpe (Lincs).



*Brake wheel from Mortimer's Mill, Eye in September 1960.
Picture – Ken Farries Collection, © Mills Archive Trust.*

Double-cogged face wheels in Huntingdonshire – continued



Staggered double cogs at Heage Windmill, the tenons clearly evidenced behind the later single cog iron sections.

Picture – Graham Hackney.

Investigation of surviving examples

Great Gransden post mill.

The first example is the brake wheel of Great Gransden post mill. This parish was in Huntingdonshire until 1974, and the venerable open-trestle post mill there is one of the oldest surviving windmills in the UK. According to Smith (1977) the inspection of an original deed by Phillip Unwin showed a building date of 1612, but this may have



Great Gransden post mill when still working.

Picture – Rev. Henry Le Grice, vicar of Gt Gransden; courtesy Dave Pearce.

been for a different mill. Dendrochronology (in the report for English Heritage) suggests that the felling date of the main post was between 1628 and 1660. In 2017, the mill was currently undergoing full restoration and the brake wheel had been removed to the Wicken Windmill workshops for refurbishment and new spokes; this provided an opportunity to study this unusual wheel in some detail.

The wheel is made of five elm felloes and is 6ft 8in (2.032m) diameter. The felloes are attached with treenails and dowels to a wheel of equal size made up of great slabs of elm, joined together with four heavy oak spokes in the clasp-arm fashion. Each of the front felloes is



Dave Pearce, millwright at Wicken Windmill, measuring up the Great Gransden brake wheel.

Picture – Graham Hackney.

double mortised to take two rows of cogs, with an inner row spaced such that each cog falls between two of the outer cogs. The outer rim of this double wheel is highly eroded and distorted due to the use of the brake over the centuries, and in fact is so worn away that some of the old dowels holding the front and back sections together have been lost. When the mill last worked, this brake wheel had cogs only in the outer set of mortises; the inner set had been sawn off flush with the felloes and some had been removed. This outer row drove an iron stone nut (pinion wheel), as is seen in many post mills across England.

Double-cogged face wheels in Huntingdonshire – continued



The Great Gransden brake wheel during the refitting of the elm felloes and showing the arrangement of oak spokes and elm slabs.

Picture – Elwyn Davies.

Madingley post mill

The second example occurs again in a post mill, currently at Madingley, Cambridgeshire. Like many other post mills this was moved – in this case twice – specifically from its original site in Easton, Huntingdonshire, to Ellington, Huntingdonshire somewhere between 1840 and 1847 (Brown 1976), and then to Madingley in 1936. The tale of the mill's second removal is told by Freda Derrick in her 1950 book 'A Trinity of Craftsmen' (Chapter 7, 'The Man who moved a Windmill'). An inscription inside the mill tells how "Walter Ambrose Harding of Madingley Hall caused this Windmill to be brought from Ellington in Huntingdonshire and to be rebuilt here on the site of the old mill which fell down in July 1909. Mr C J Ison, builder of Histon finished it the 1st June 1936".

According to Brown, the mill was converted from a traditional post mill into a composite mill with a two-storey roundhouse, live curb and fantail by Mr Rowlatt, an Easton millwright, at the time of its first removal. Brown then states that during its second removal it was converted into a Midlands-type post mill with the buck "moving on rollers fixed to the body of the mill, on top of the single-storey roundhouse" and the fantail replaced by a tailpole. None of this would necessarily require the replacement of the brake wheel so it could well be of some age.



Madingley post mill as drawn by Freda Derrick for her book 'A Trinity of Craftsmen'.

Houghton Watermill.

The third example of this type of wheel is found in Houghton Watermill, the famous National Trust property on the River Great Ouse. Various mills have occupied this spot since the first building was erected around the year 969, and in the Middle Ages the mill was owned by the nearby Benedictine Abbey. The present building was probably built in the 17th century and was extended in the 19th century, but still retains much old machinery. In its heyday the mill had three waterwheels, each with its own pit wheel, one of which is featured here. The photograph clearly shows the iron compass-arm pit wheel with felloes which are cut through to accommodate two sets of wooden staggered cogs. These drive a staggered double pinion gear, made up of two iron bevelled gear-wheels, both with four spokes, through which they are bolted together.

This arrangement is fully described on p.16 of Martin Watt's comprehensive survey of the mill, made in 1999:

"III Machinery (South, east)

PITWHEEL: The waterwheel shaft has gone but the pitwheel survives, standing in its cog pit. It is an impressive gear, about 11ft 6 in (3.500 m) overall

Double-cogged face wheels in Huntingdonshire – continued



*Double-cogged pit wheel at Houghton Watermill.
Picture – Hampshiremills.org.*

diameter, cast in two halves bolted together along one pair of its eight+ section arms, with massive square headed bolts and hexagon nuts. The centre of the gear was cast for a square shaft mounting and has an inserted cast centre for a circular shaft of about 18in (445 mm) max. diameter. The gear ring carries two staggered rows of 96 cogs, of $4\frac{1}{4}$ in (107 mm) max. and $3\frac{3}{4}$ in (95 mm) min. pitch. Both sets of cogs have a 4 in (100 mm) face, with a gap between, giving a total gear face of $8\frac{1}{2}$ in (215 mm).

WALLOWER: This is cast in two halves horizontally, in order to stagger the teeth, the two sections being bolted together vertically through each of their eight arms. It has two staggered rows of 34 teeth. Its centre is square and it is held by timber packing and four cast iron angles, one to each corner, off the circular foot of the timber upright shaft."

Discussion

The distance from Easton to Great Gransden is only 20 miles, by main road, and Houghton is situated between both, so these unusual wheels had a close proximity. This might suggest a common origin, perhaps a millwright or family of millwrights, but of course we have no way of

telling if there were originally many more of them. This suggestion would have more validity if it could be proved that they were of a similar age. Unfortunately dendrochronology cannot be carried out on Great Gransden brake wheel as all the old remaining timbers are of elm.

While the actual age of the Great Gransden brake wheel is uncertain, the position of the cog mortises suggests it was originally built for two rows of cogs (a single row of cogs would have been installed in the centre of the rim, not right on one edge). If there was a double pinion it no longer exists, but could this have been a 17th-century construction? This seems unlikely as 17th-century post mills would most likely have had lantern pinions (or trundle gears) rather than pinion wheels, and if so how could this possibly work? There does not appear to be sufficient room for the double ring of gears to connect with the staves on a lantern or trundle, so a later date is likely.

However, there is a very unusual 'windmill' in Germany, the so called 'barn mill' at Saalow, built in 1864 as a 'one-off' for a farm by a local carpenter, that also has double-cogged brake wheels. The mill has two of its four sides taken up by large annular sails, and the one on the western side still has a double drive-wheel arrangement, both with two staggered rows of cogs. However, these do



*Interior of the barn mill at Saalow showing
the two annular wind wheels.
Picture – [Graham Hackney](#).*

Double-cogged face wheels in Huntingdonshire – continued



The two brake wheels at Saalow; both are double-cogged and the outermost wheel still has its lantern gear.

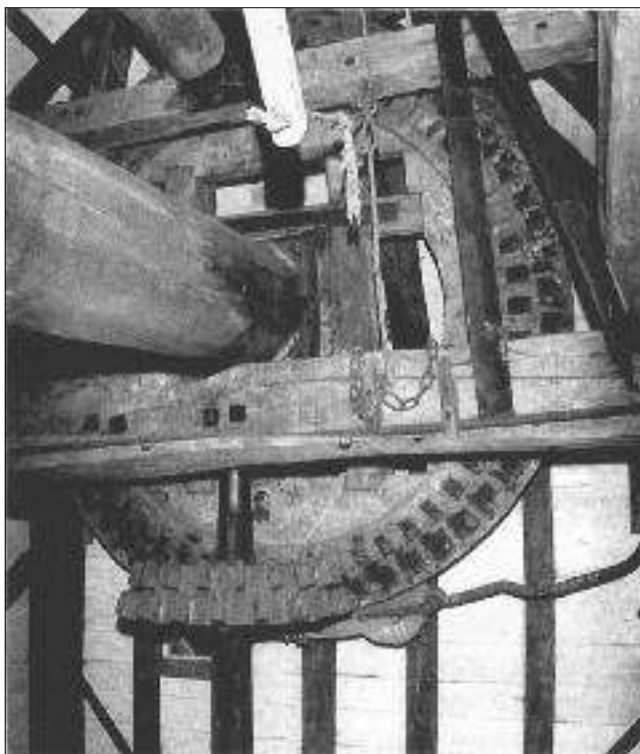
Picture – Graham Hackney.

not run on to a double pinion, instead the outermost wheel has a lantern gear with narrow, closely spaced staves (the innermost brake wheel has lost the lantern gear). The object here presumably was to raise the speed from the slowly turning wind wheels to one suitable for grinding corn (there are no other intermediate gears). This example does go to show that lantern gears *can* be used with double-cogged face wheels.

The answer *may* be found at Madingley. The mill is in private ownership and difficult to visit (certainly at the moment), but fortunately the work was done for us by windmill enthusiast Derek Harris who made an internal inspection in November 1983. His photos clearly show the brake wheel with its full complement of double cogs and with an iron double pinion in situ.

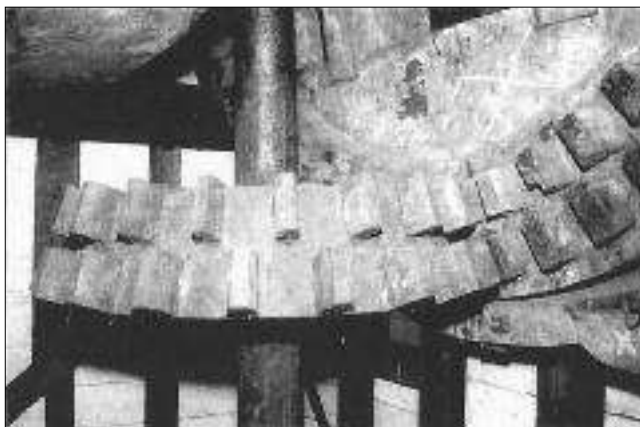
The close-up photos show that the double-pinion gear is made up of two iron bevelled gear-wheels (with the smaller above), both with six spokes, through which they are bolted together. The similarity to the double pinion at Houghton Watermill is striking. The gear wheels are fixed to the iron spindle via four key-ways and with small iron wedges. Such iron gears were only used in mills from the late 18th century and the whole arrangement might have been installed when the mill was converted to a Midlands type in the 1840s. This may strongly suggest that there was a similar arrangement at Great Gransden of *similar* age. Dave Pearce considers that “the Madingley brake wheel is clearly extremely similar to that at Gransden: so similar that it is most likely by the same millwright – note the heavy rim, with cut-outs for the short spokes. The inner gear ring is made up of smaller cogs, even the same iron strengthening strap perhaps”.

However, the major difference between the two mills is what goes on at the lower end of the spindle; at Gransden the spindle over-drives a set of ‘head’ stones immediately below, whereas at Madingley the spindle leads down to a spur wheel on the floor below driving two sets of under-driven stones, each with its own stone nut – hence the double pinion gear is indeed a wallower (as per Wailes’ and Shillingford’s descriptions). This could explain the



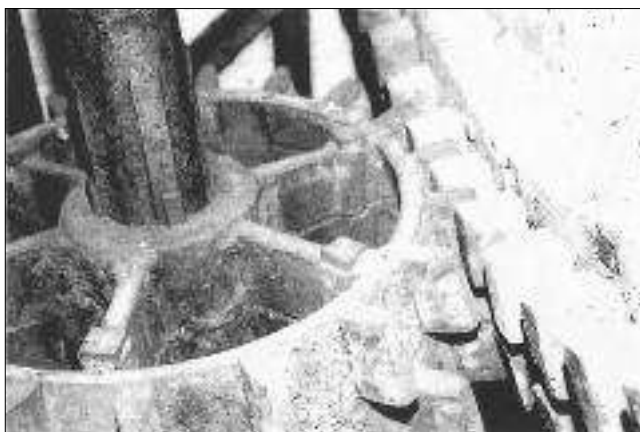
The brake wheel and double pinion at Madingley post mill.

Picture – Derek Harris.



Close-up showing the double-pinion meshing with the brake wheel.

Picture – Derek Harris.



The pinions are made separately then bolted together through the six spokes.

Picture – Derek Harris.

Double-cogged face wheels in Huntingdonshire – continued

purpose of these double-pinions, as the strain resulting from extra work required by the gear train could be spread more effectively (rather than reducing the risk of 'backlash'). This then begs the question of *why have this system at Great Gransden?* and here Dave Pearce provides some insights:

"I believe that Great Gransden mill is likely to have originally driven a single large pair of stones. The evidence for this is a bed stone bearer found at the mill, that had part of a concave recess to support the convex base of a very large stone, indeed the radius of the recess suggests the stone to be around 6 ft in diameter!"

Dave goes on to say:

"My thought is that the double cog row gave protection against serious cog failures in service. Maybe a local mill with a normal single row brake wheel suffered a failed cog, and before it could be stopped the successive shocks broke several more cogs. The Gransden/Madingley design was the millwright's response perhaps. I suspect that before Ellington/Madingley was interestingly rebuilt in the 19th century (with raised buck, large patent sails, roof top fan, two pairs of stones in the head etc) it was much like Gransden internally, and I suspect it had a stone nut till then. It is impressive that the millwright later produced the two layer iron wallower."

There is no evidence currently for the identity of the millwright(s) responsible for these wheels. The post mill brake wheels could well be 18th century, but Dave Pearce

recalls a comment from eminent Cambridgeshire molinologist Peter Filby, who thought that Clarks of Houghton might be involved. They were active in Houghton in 1847 when George Clark, millwright, founded the village shop/bakery to be run by his wife. The 1881 census has George, age 58, millwright employing three men, and son Frederick, age 36, as millwright. Living next door was Hannah Clark, millwright's widow, age 71, suggesting two generations of Georges. These dates would more likely coincide with the manufacture and installation of the pit wheel in Houghton Mill and the double bevel pinion/wallower gears at Madingley and Houghton. As so often in these matters, there is more research to be done.

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Correction to Mill News no. 163, April 2020: in the article *The Value of Huntingdonshire Mills at Domesday*, the start of the second sentence of paragraph 2 on page 2 should have read "By removing these **14** mills (worth in total £8.795) ...".

Candy Mill, Aberwheeler

STOLEN

A bolter (flour dresser) has been stolen from inside a mill near Denbigh, North Wales, which is not normally open to the public. It was in workable condition, and the only item taken, so clearly stolen by someone who knew exactly what they wanted. It is subject to a Police investigation. If you hear of a bolter changing hands or anyone acquiring one, please inform Helen or Arthur Williams by email at aberchwiler@yahoo.co.uk



This notice of the theft of a bolter from Candy Mill at Aberwheeler in North Wales was posted on the Windmill Hoppers Twitter stream on 22 May. A SPAB casework officer for Wales has since visited the owners and reports that they are clear that the bolter was stolen to order as it was in working condition and other machinery or items within were left behind. The floor of the first floor of the mill was also damaged during the theft.

Clencher's Mill – Providing a foster home for an orphaned item

Adam Marriott

Some while ago Sophie and Mildred from SPAB Mills Section alerted the heritage mill community that following the rather regrettable planning approval for a house conversion of Brewhurst Mill, certain items of equipment were looking for new homes.



Brewhurst Mill in 2018.

Brewhurst Mill is a very interesting mill situated in West Sussex, which was rebuilt by J J Armfield around 1900 on top of an earlier mill after a fire. The resulting structure, which continued working commercially for farm feeds well into the 1980s, was powered through many yards of lineshafting by either a Blackstone oil engine (which remains on site) or by a complex belt drive off an external breastshot waterwheel.



Blackstone oil engine at Brewhurst Mill.

The rebuilt mill was largely of pine construction over five floors with several elevators, screws for moving grain and stock, a Massey Harris hammer mill and two pairs of belt-driven stones on an iron hurst frame with some sifters and a grain cleaner in the attic.

From my work on the restoration of Clencher's Mill, a small watermill on the Eastnor Castle Estate near Ledbury



Armfield Grain Cleaner at Brewhurst Mill in 2018.

in Herefordshire, I knew of a requirement for the installation of a grain cleaner in support of a long term aim by the owner, James Hervey-Bathurst, to bring the mill into some degree of regular production. Several conversations with the Brewhurst Mill owner and with Sussex Mills Group member Peter James ensued and following an exploratory visit it was decided that the Armfield machine would be a near perfect fit for Clencher's Mill and the offer was very gratefully accepted.

Steve Howick (a sometime miller and repurposed naval weapon engineer) and I had a discussion about the logistics of fetching the cleaner. We made some, as it turned out, over-optimistic assumptions about how long it would take to dismantle the machine for removal and transport. So we set off from Herefordshire at 5am on a Wednesday morning confidently expecting to return with the cleaner onboard by late afternoon.

We found our way to the mill arriving at about 8.30am (following a bacon butty stop) and spent a much longer day than we had anticipated dismantling the cleaner down to a level where the components were light enough and small enough to fit through either the stairwells or sack traps.

We duly worked all day and by 6pm had a van full of parts and a heap of sketches and joints with coloured dots stuck on the various components to indicate what went where. We decided to unload the following morning as it was rather late by the time we'd got back to Ledbury at about 9pm!

Providing a foster home for an orphaned item – continued

The next day we unloaded what was now a rather motley-looking pile of bits and then another four months of work began.



Armfield Grain Cleaner - arrival at Clencher's Mill.

The cleaner was hauled upstairs in bits and the main frame reassembled, then the shafting, bearings and fan chamber were fitted together and any damage/holes repaired and the cleaner assembled almost in reverse of the way it was dismantled – but with a few false starts inevitable where there is no installation manual and natural enthusiasm got ahead of prudence! Eventually, after a few days of cumulative work leisurely spread over about four months, we ended up with a workable cleaner and set about fitting a suitable powering arrangement. It would have been relatively easy to have gone for a simple electrical drive but we settled on a more challenging but appropriate lineshaft and belt drive.



Installing lineshafts and pulleys.

We salvaged some surviving items of lineshafting from Upper Mitchell's Farm, where a building formerly contained a hops processing plant. Salvageable items of shafting were removed and bearings made up and installed at Clencher's Mill to be driven via the layshaft that drives the slack belt sack hoist.



Armfield Grain Cleaner installed at Clencher's Mill.

Other works at Clencher's Mill have included work to the launder, wheel bearings and waterwheel buckets and truing the pitwheel.

Also, the stone nut, which was showing considerable wear, has been re-cogged with teeth of yew donated to the cause. Although somewhat unusual to be using yew, our researches had turned up an interesting reference by John Evelyn published in 1664 on the use of yew as:

'Also for the cogs of mills, posts to be set in moist grounds, and everlasting axel-trees, there is none to be compared with it; likewise for the bodies of lutes, theorbos, bowles, wheels, and pins for pullies; yea, and for tankards to drink out of.'

Finally, to complete this picture of work that has taken place to enable Clencher's Mill to begin to demonstrate a full milling process, we should mention the installation of a bolter rebuilt using remnants of one found at Wormbridge near Abergavenny.

This not inconsiderable project required a fair amount of research as these machines were already going out of fashion in the mid-19th century. It was therefore very satisfying when looking to source the mesh sleeve, which is a key component, to find that a firm, John Staniar & Co.

Providing a foster home for an orphaned item – continued



Stone nut with yew cogs.



Bolter as found.

of Manchester, which was producing these items in the 1800s is still in business under the same family ownership. Although the company had not produced a bolter sleeve for probably more than 100 years, they were keen to support the project and after design discussions provided one which has worked perfectly from the outset.



Rebuilt bolter installed at Clencher's Mill.

All photographs by Adam Marriott

Manchester, 1891. THE MILLER.

JOHN STANJAR & CO., Rice & Flour Mill Furnishers,
Wholesale of Wire Goods, Sewing, Smelter and Mining Wire, Twist, Fasteners, Machine Tools Manufacturers
AND IMPORTERS OF SWISS AND FRENCH SILKS.

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CORN AND RICE
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FLATTED STEEL WIRE BOLTING CLOTH
FOR MILLING AND DRUMS FOR 1891.

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SOLE AGENTS FOR THE NORTH OF ENGLAND
FOR THE SALE OF ALL THE ABOVE MENTIONED GOODS
AND FOR THE SALE OF ALL THE ABOVE MENTIONED GOODS
AND FOR THE SALE OF ALL THE ABOVE MENTIONED GOODS

John Stanjar – advertisement from 1891.

News from the mills

7Stracey Arms Drainage Mill, Norfolk

The second update on repairs to Stracey Arms Mill, which is part of a National Lottery Heritage Fund supported project that will see the mill returned to working condition. The project is being managed by owners Norfolk County Council.

Winter/Spring work has concentrated on the new fly frame and fly. The old fly frame dated from the Smithdale restoration in the 1960s with later repairs by the late John Lawn. All components were in poor condition and a new frame has been assembled using locally grown oak. The fly shaft bearings are plummer block/angle bracket combined castings and have been reused and fitted with new bronze bearing shells.



Detail of Fly shaft plummer block/angle bracket.

As usual in Norfolk, the fly is large, being 12ft diameter. It is eight-bladed and a new fly has been constructed incorporating the two repaired fly stock rings.



Test assembly of fly.



Test assembly of the fly frame.



Assembling a blade.



Detail of fly blade and tip tie rod.

News from the mills



Test fitting the worm shaft.

The new hangers that carry the cap frame worm winding shaft and their bearing cups are now in situ.

All is now ready to turn the cap frame over and start building up the front gable.

Richard Seago

The Mill and the Marsh Folk Newsletter, Spring 2020

Our last newsletter ended with a section entitled, '2020 vision – setting our sights on the year ahead'. However, what none of us could foresee were the huge changes to society that would be caused by a global pandemic. We have cancelled all our public-facing events for the time being to comply with current Covid-19 restrictions. As you would expect, all restoration work at the mill has also stopped for the time being.

The natural world appears to have been a major beneficiary of the lockdown. While the mill waits for some human attention, Spring has sprung. The swallows will soon be returning to nest inside the mill. At least there will be some visitors this year; they may also appreciate having the building to themselves!

This year's National Mills Weekend – organised by the Mills Section of SPAB (the Society for the Protection of Ancient Buildings) – has been changed to become an online only event. As a result, we regret to announce that our scheduled Open Day on Saturday 9 May will not take place.

The theme for this year's event was to have been 'Millwrighting - Past and Present' and we had planned a display about Smithdales, the local millwrights who restored Stracey Arms Mill in the 1960s. The Mill and the Marsh Folk project is currently employing the skills of millwright Richard Seago during the restoration.

Kent County Council windmills

In spite of the Covid-19 lockdown restrictions it has been possible to continue with repairs to some of Kent County Council's (KCC) windmills.

Herne Windmill

At Herne Mill the cumulative effects of last winter's high winds finally made themselves known. Following the loss of some shutters from the sweeps in recent months, the fantail gear suffered a mechanical breakdown on 22 April.

Swift action by Ray Corbin, one of the Friends of the Mill, made the gearing safe so that its condition could be assessed. The gears on the fan spindle and down shaft – which take a lot of punishment – are very worn, but the main problem occurred inside the cap where the teeth of one of the intermediate gears have been severely damaged.

In addition to the problems inside the cap, the shutters in the sweeps are in a poor condition. Without a working fantail it would be unwise to leave the fully-shuttered sweeps facing in one direction, particularly in this exposed location.

Reluctantly, the decision was taken to lower the sweeps, stocks and fantail blades to ground level in order to make



One of Kent's last working mill sweeps taken off Herne Mill. Put up in 1936, taken down in 1973.



Replica sweep, made in 2004, taken down in 2020.

News from the mills



*Removing the fantail from Herne Windmill.
Picture – Tim Whiting.*

the mill safe for the time being. The laminated stocks are now over 20 years old and have given good service. Unfortunately, at some point they were fitted with screwed-on 'stop blocks' to prevent them moving in the canister, a system that allows water ingress near the centre of the stock at the point of greatest sheer stress. The stocks remain on site, allowing this detail to be inspected at close quarters. It is likely that the stocks will be renewed when the sweeps are eventually re-erected, and fitted with clamps to strengthen them at the centre.

Tim Whiting and Alex Halton removed the sweeps and fantail over a week of beautiful weather in late May. During



*View from the picker working at Herne Windmill.
Picture – Tim Whiting.*



*Further view of removing the sweeps from Herne Windmill.
Picture – Tim Whiting.*

this process it was possible to reconstruct a historic photograph taken by Vincent Pargeter in 1973 which showed the last working sweeps of the mill being lowered (see page 35). These had been made in 1936 as a result of the SPAB's successful campaign for funds to keep Herne Mill working by wind, which it continued to do until 1951.

West Kingsdown Windmill

Over on the west side of the county, phase I of structural repairs at West Kingsdown Mill began in April. In recent years the mill has looked rather sorry for itself with only its metal stocks remaining in position. The unique seven-bladed fantail was wrecked in high winds some time ago when it broke free and started turning at an alarming rate.



*Councillor Michael Payne inspects the exposed bin floor wall framing of West Kingsdown Windmill.
Picture – Luke Bonwick.*

News from the mills



*West Kingsdown Windmill.
Picture – Eloise Collier.*

Water ingress around the windows had led to decay in the areas directly below them. Temporary weatherproofing works carried out last winter allowed the smock tower to dry out thoroughly. With scaffolding in place the old weatherboards were stripped off, enabling the window posts and studs underneath to be repaired.

A square single-storey base of red brick supports the octagonal smock tower. It appears that six of the eight corner posts were repaired by Thompsons of Alford in the 1960s, with new lower ends bolted on just above stone floor level. The joints are remarkably short and may require reinforcement if the cap is ever made to turn to wind again. The smock tower has unusual diagonal studs between the corner posts, with no intermediate posts or braces as is more typical. It is not clear if this is part of the original design or an alteration made in 1880 when the mill was moved and re-erected on this site.

Repair works are now at an advanced stage with the external weatherboarding being applied. The mill is already starting to look much healthier – although there are no plans to fit new sweeps in the near future. The mill last worked with a pair of commons and a pair of double-shuttered patents, adjusted from a wide stage at first floor level.

Luke Bonwick



*Repaired framing at meal floor level, West Kingsdown Windmill.
Picture – Luke Bonwick.*

Lincolnshire Mills

At Heckington Windmill we start milling again on our hurst frame on 16 June. Our shop has been open since late May selling flour/porridge and demand is good. We are buying in stoneground white flour from Sibsey Trader but will be milling our own wholemeal.

Dobson's Windmill in Burgh le Marsh is to be repaired after the damage from Storm Ciara but they will not be milling until 2021 at the earliest.

Alford Windmill remains shut down, but will possibly be repaired next year and transferred to the Alford Civic Trust.

Ellis Windmill in Lincoln is closed with no prospect of Lincolnshire County Council opening it in the near future.

Maud Foster Windmill is milling by wind and hurst.

Mount Pleasant Windmill in Kirton is milling on their hurst.

Sibsey Trader Windmill remains open but selling bought-in flour. Their repairs have stopped during the lockdown period.

Jim Bailey

Mill Group News and Newsletters Review

Tom Derbyshire

This report is produced by Tom Derbyshire. Will all groups please send copies of publications to Tom at derbyshire.tom@gmail.com, or by post to him at 15 Kinderscout, Hemel Hempstead, Herts, HP3 8HW.

The next copy date is 1 September 2020.



Hampshire Mills Group Newsletter No 129, Summer 2020

In her editorial Ruth Andrews asked for more contributions from members and referred to planning applications at Chase Mill and Bursledon Windmill.

Andy Fish, Chairman, reported on the effects of lockdown and in particular action being taken at Eling Tide Mill, Sturminster Newton and Longbridge. He also referred to a visit a few years ago to Charlecote Mill in Warwickshire.

Sturminster Newton has started milling commercially to help with the flour shortage due to the lockdown. In 10 days, they have milled a tonne of wheat – usually the year's total.

There was a eulogy to Jeff Hawksley, which is fully reported on in the main body of Mill News. Jeff contributed many articles for SPAB and HMG newsletters, two of which were referred to. In March he gave a fascinating talk to the group on the flax mills in Romsey and his article on the subject was reprinted from newsletter 91. In addition, with his background as a marine engineer, he was an excellent model maker and made one of Berthon boats (collapsible lifeboats), which is in King John's House.

Richard Ellis discussed white versus wholemeal flour and comments made by Nigel Harris on his article "Millstones versus roller mills" (HMG newsletter 120).

In summary Nigel was questioning Richard's use of certain terms and comments, such as "trace element" to describe silica. Richard disputed Nigel's evidence that the heat generated in stone grinding discoloured and injured the properties of flour and objected to Richard's description of white flour being promoted as "pure" and much better than "dirty" brown flour from "unhygienic" old watermills. Richard also disputed Nigel's comment that people had been eating white bread for centuries as a fad for the rich and supported this by saying that the working man would probably have preferred 100% wholemeal bread.

When roller mills came in, it was claimed that white flour was purer than brown and better. But was it? No, according to Richard, because all the key nutrients had been removed. Conversely, Nigel had pointed out that by law white flour has to be fortified. Richard concluded that white flour is less healthy than wholemeal. The editor suggested that all opinions expressed by authors are not necessarily those of HMG and asked others to write to him with their opinions.

There was an abridged comment about Whitchurch Silk Mill cocooning, basically stating that even though the mill was closed to the public weaving would continue and a

range of digital content would be available for people to view at home.

Ruth Andrews wrote an interesting article on Worsbrough Mill in Barnsley.

The mill has been restored as a working museum by West Riding County Council and entry is free at weekends. It has a 17th-century two-storey water-powered toll mill and a 19th-century three-storey steam mill. (A toll mill meaning farmers and smallholders would bring small quantities of corn to be milled, the toll being 1/16th for the miller.)

In the old mill, water enters via an iron pipe which feeds a header tank over the overshot cast-iron waterwheel (14ft 4in x 4ft) of 1864. It drives three pairs of stones via a substantial upright shaft.

In the 1840s a new mill was added with a Watt steam engine (removed in 1922). The new mill has a third storey with a bin floor beneath the roof. (The old mill had no bin floor because only small quantities were milled so no need for bulk storage.)

During restoration a rare 1911 Hornsby hot bulb oil engine was rebuilt in the original engine room to drive the two stones in the new mill, which can also be driven by the waterwheel. A good description accompanied by clear photographs explained how the two forms of drive were applied to the stones. Also, there were three pieces of ancillary machinery belt-driven from a layshaft off the crown wheel: an oat roller, a kibbler with fluted rollers and a centrifugal dresser.

Keith Andrews, who has spent some lockdown time digitising his collection of slides, published a selection that includes shots of Eling Tide Mill in 1980, Thame Windmill in 1967, Sutton Mill Norfolk in 1992, Jack and Jill in 1984, Carew Tide Mill in 1979, Cheddleton Flint Mill in 1981, Herring Fleet Windpump in 1981 and Shipley Windmill in 1985.

There was a page devoted to mill fires – Alford Mill, an old oatmeal mill, with a photo from The Press and Journal (Aberdeen), 1 April 2020. Also Springfield Mill, Sandiacre Nottingham, a former lace mill, now apartments, from an ITV Report on 22 April 2020.

Letters

Richard Ellis reported on flour shortage in the current crisis. In normal times, 93% of the flour is sold wholesale to bakers etc and only 7% to the retail trade in small bags. So the industry has invested in bagging machines but cannot keep up with demand from 27 million households. There is plenty of flour, just not enough in small bags – if you want flour badly enough you could probably get a 25kg bag.

Oil leather mills – a question from Judith and Stuart Mousedale. On reading Volume 2 of Mills and Millers of

Mill Group News and Newsletters Review – continued

Hampshire, they came across a reference to an “oil leather mill” and asked what the term meant.

Ruth Andrews replied that it was a mill for either producing oil (probably linseed) or – more likely – treating leather with oil (for example, cod-liver oil or linseed oil). A reference was given to Hackbridge Mills in Carshalton (<http://www.wandle.org/mills/hackbridgemills.pdf>).

The mill here was used for various things in its history, including fulling, copper making, gunpowder and making and treating leather.

The significance of the description of Shepley as “oil” leather dresser is that he used linseed oil to make leather soft, as compared with the harder leather resulting from water-based processes. Essentially, the skins were placed in troughs of oil and pounded by hammers worked by a waterwheel. At some time before 1778, George Shepley converted one of the mills to oil milling, so he could become self-sufficient as regards the supply of oil.

David Wootton sent in a scan of a painting by Victorian artist Albert Goodwin and asked if it could be identified. It was thought to be Gaters Mill in West End, north of Southampton on the river Itchen.



Midland Wind and Watermill Group Newsletter No 126, April 2020

Members’ meeting on 7 December, 2019 at Blakesey Hall Barn. Reported on by Kate Bonson. The first speaker was Andy Tatchell of Mordiford Mill, Herefordshire, who described the complex water supply arrangements to his mill and was at last able to show his newly erected waterwheel with water flowing over it. He is now to rebuild the pitwheel.

Tony Bonson described Edge Windmill on Long Island, New York, apparently built by Isaac Edge – a Derbyshire man. This was a seven-storey stone windmill with a double tail fan.

After a break John Bedington showed photographs of mills he had recently visited in Cape Cod. The first of about 30 mills were built in 1687, of which six remain. These smock mills had sails that were either equal-sided or had one side narrower than the other. Their most unusual feature was the exceedingly long tailpole to turn the mill into the wind.

The last presentation was from Tim Booth showing photographs of his visit to Howsham Mill on the River Derwent in North Yorkshire. The mill was built in 1750 but had fallen into disrepair. Now a team of volunteers has brought it back to its former glory and added a couple of Archimedes’ screws to generate electricity for use in the mill.

A talk was given by Tony Bonson on 1 February, 2020 describing mills he had visited during the Berlin TIMS symposium. The main points were as follows. In Britain at the end of the 19th-century, wind and watermills had largely disappeared because steam mills etc had taken over, but because Germany was not yet unified, small country mills had invested in new technology for flour production.

The first area visited was the extreme south-east of the former DDR. Here several post mills had been extended

to accommodate roller mills etc. They were so big as to have the appearance of Paltrock mills. Mill stones were generally sickle dressed. A quarry was visited where hard sandstone had been quarried to make millstones. Watermills were mainly turbine driven. Sack hoists were the “Fahrstuhl” kind, in which the sack chain ended in a cage – so often the miller would go up with his grain. Near Berlin, Frederick the Great’s enormous Potsdam mill was visited, as well as an extraordinary farm windmill where the wind was caught by one of two wind wheels set in contiguous walls of a square barn.

The second area visited was Hannover and Hartz, where innovations from abroad were common, including cast-iron gear wheels and patent sails. Mills for uses other than corn grinding included: a water turbine-driven ironworks (Königshütte), where everything from smelting iron ore to assembling the machines had been done on site; a forge where a water turbine drove hammers; and Rammelsberg silver mines, where waterwheels were used on the ore-dressing floor and to drive pumps, also a reversible water wheel used for driving a hoist.

News from the mills

Congleton Hydro: this is an installation about a mile upstream from Congleton, which will generate renewable energy using Havannah Weir as the 12ft head to supply an Archimedes’ screw that will drive a generator to supply electricity with an estimated production of 260,000 kWh per year. Find out more by visiting

www.congletonhydro.co.uk

Heage helps archaeologists: archaeologists contacted Alan Gifford after seeing his reference to Swarkstone Mill in his book on Derbyshire windmills. They are investigating the Swarkstone site prior to it being developed for housing. Alan provided the relevant history and invited the investigators to Heage Windmill so they could see how a windmill operated. Still on Heage: volunteers have recently re-gogged the stone nut.

Stanway Watermill: in October 2019 celebrated the 10th anniversary of its reopening. Over the past 10 years it has produced 70 tonnes of flour, had 16,000 visitors, organised 500 guided tours and been open to visitors for 800 days.

Stainsby Mill: Alan Gifford spoke recently to Anna Parkin of the National Trust as she is preparing a conservation plan for the mill after having read Alan’s book on Derbyshire watermills.

Wrickton Mill: Tim Booth reported on the work done by John Bedington, Dave Wadley and Mike Forbes. They successfully removed the old waterwheel square shaft in one piece, removed the existing gudgeons and transported them to David Empringham’s workshop to fit on the new shaft, which has now been delivered and is in the yard ready for installation. Thanks were given to the workforce and for grants from SPAB and MMG.

Stanway Timber Wagon: Mike Lohan described the rebuilding of a horse-drawn wagon made for taking logs to a sawmill. This has the ability to adjust the distance between the front and back axles to fit to the length of log being carried. The only part which had to be done by

outside contractors was the making of the wheels by Crosskill in Beverley in Yorkshire. The unit would have been pulled by eight or 10 horses.

Flood damage at Daniel's Mill: Storm Dennis caused a great deal of damage to the spillway and filled part of the mill with silt. MMG has donated £500 to purchase materials needed for the repair and volunteers are urgently needed to help with the work – if you can spare the time, please contact Daniel's Mill Trust at

info@danielsmill.co.uk

Chesterton Windmill: needs repairs to a stock and sail, making it unsafe to turn.

Whissendine Windmill: received an MMG grant of £500 towards the cost of repair to the fantail.

Mill in need of identification: a photograph of a watermill from a glass slide from Brian Jury was published asking if members could identify the location of the mill.

Journal 39 – the Midlands Mills Group Occasional Journal – has been published. Containing articles by David Kitching, AM Beacham and Tim Booth. Available from Editor Tony Bonson.

A favourable report was given of the £150 new book by Peter King "A Gazetteer of the British Iron Industry, 1490-1815".

The Mills Open 2020 leaflet of the Midland Mills Group has been published and will be available from various mills in the district.

John Bedington wrote an article appreciating a book in French, entitled "Marcel Barbier, Meunier à Moutiers-en-Beauce", which is on the Mills Archive books for sale list. In his summary he writes: "It's a pity there is so little material of this calibre about the actual running and repair of mills in the old days in our country".

Barry Whitehouse wrote an enthusiastic account of a book by Di Murrell entitled "Bread and Barges – Canals & Grain to Bread and Baking" and highly recommended it. Available from Prospect Books –

www.prospectbooks.co.uk

Rex Wailes Collection update from the Mills Archive. A statement of thanks for all the generous donations received to the appeal. Another interesting find in his collection was the diary of his trip to the USA and Canada, visiting various engineering firms and finding out about windmills over there. More information at

www.millsarchive.org/appeals/rex

Alan Gifford reported on an article in Engineering of June 5, 1955 about two huge waterwheels that existed in the long-since gone Bakewell factory of the DP Battery Company Ltd. The article reported that due to a serious breakdown of the two wheels it had been decided to replace them with a water turbine. The factory, originally founded by Sir Richard Arkwright, was taken over by DP Battery Co. in 1898. The Ashford Dam in the River Derwent provided the water supply.

The larger wheel, 25ft in diameter by 18in wide, was built by the Manchester firm of Hawes and Wren in 1827. It had 70 buckets and these in ordinary working conditions held 10½ tons of water. The smaller wheel, constructed in 1852 by Kirkland and Sons of Mansfield, measured 21ft in diameter and was 7ft wide. The pair

produced between 60 and 80kW of power. In 1955 one of the teeth of the larger wheel broke and jammed against the pinion –nearly 5ft diameter and 14½in wide – which transmitted all the power to the factory. As a result, all the teeth of the pinion were stripped away together with many teeth on the wheel itself, and the wheel's frame and that of the driving wheel in the factory itself were also broken. In the circumstances it was realised that to repair the damage was out of the question and it was decided that the historic wheels should be scrapped.

In the April 1953 issue of the Newcomen Society, the wheels were described as overshot; in fact, they were breast shot. At one time they were regulated by a governor of the type described by Sir William Fairbairn, which still exists but has long been disused. In practice the flow of water was regulated by a series of louvres, operated by rack and pinion gears. The smaller wheel, like the larger, had a rim of internally toothed cast segments and wrought-iron spokes, with diagonal internal bracing; the shaft of the smaller wheel was circular. The larger wheel had an axle of cruciform shape with a rim constructed in 10 segments each having 27 teeth, the teeth on the pinion numbered 57 with a depth of 2½in.

During a test run in 1951 the revs were 2.16 per minute, the torque developed was reported as 240,218 ft lbs and the corresponding horsepower was calculated at 119.56, with an efficiency of 73.7%. The wheels were replaced by a 150hp Gilbert Gilkes and Gordon Ltd turbine, which was still in use in 1969. They must have been a magnificent sight when running. The article was accompanied by photographs.

Several planned trips had been cancelled due to coronavirus restrictions, but it is possible that the "own car" trip to Derbyshire on 2 September, 2020 will go ahead, visiting Slinter Watermill, Caudwell's Mill and Heage Windmill.



Sussex Mills Group Newsletter No 186, April 2020

The front cover showed an aerial view of West Blatchington Windmill.

The Chairman reported that fortunately there had been little damage to Sussex mills from the winter gale-force winds. He was saddened by

the news of the damage to Burgh-le-Marsh Mill in Lincolnshire by Storm Ciara. He reported on the planning permission to convert the lower floors of Shipley Windmill to living accommodation and on two significant anniversaries: West Blatchington, celebrating 200 years, and the long project to restore Oldland Mill reaching its 40th year.

Justin Brice in his editorial referred to the fact that he had asked on Facebook if anyone had knowledge of other obscure mill remains. He had responses about millstones in the path at Bateman's, West Blatchington having parts from an old ship, millstones in a wall near the site of Silverhill Windmill in Hastings, millstones from Billinghamurst

Mill Group News and Newsletters Review – continued

Smock Mill and one set in the patio of Hammond House, a millstone in the terrace of Virginia Woolf's Monk's House from Rodmell Mill, and also one in the church at the base of the grave of the last miller, millstones from Heene Mill at Worthing in the paths at Courtlands in Parklands Avenue. He also uncovered a link to a mill in Sockernersh Manor with two famous crooners. The Manor House was apparently used as a weekend retreat by Sir Tom Jones and Engelbert Humperdinck.

News from the mills

Argos Hill Windmill: can now grind flour. Two cartwheels have been commissioned for the fantail carriage (attached to the mill by a 34ft tailpole). Richard Howes described how the tailpole driving wheels were made with the aid of excellent photographs (spread over four pages) by Chis Bottomley.

Billingshurst Windmill: Geoffrey Lawes reported that a public information notice is to be erected to enhance the refurbished remnants of Hammond's Mill.

Nutley Windmill: two new shuttered sweeps have been made and it is hoped to have them in place by National Mills Weekend. They have had no joy in recruiting young men to join the volunteer team.

High Salvington Windmill: the newly cleaned runner stone has been put back on top of the bedstone.

Oldland Windmill: there are plans to celebrate the 40 years of restoration of the mill and they plan to install a lightening conductor.

Windmill Hill Windmill: all four sweeps will need to be repaired within the next 12 months – fundraising will be carried out meantime to pay for the repairs.

"The English Windmill" – a video by Martyn Taylor: a trailer can be viewed on YouTube at

<https://youtu.be/JaBf5TadX3o>

plus the website is now up and running for DVD and digital downloads at

www.thedigitalpublishingcenter.com/70/ew/75/the-english-windmill

West Blatchington Windmill: the sweeps needed readjusting after the storm last November. This year they will be celebrating their 200th anniversary. Alex Vincent has produced a booklet to commemorate the event and they now own all the research papers by Maurice Lawson Finch.

Crowborough Beacon Windmill: some of the remains have been removed to make way for a car park

Bob Bonnet wrote his usual review of news from other mills groups, this time including three articles from the January edition of Mill News.

Justin Brice wrote about the three windmills that existed on Watersfield Common. Watersfield Common Post Mill, c1778 to 1869 (a cast-iron manhole marks the spot). Watersfield Common Smock mill, c1841 to 1879 – a millstone possibly from this mill is currently being used as a sign to the entrance of a property known as Windmill Hill. There was also a very early 12th-century post mill (c1227?), but it is not certain where it was sited.

There was a positive review of the book "Mills of the Isles" by Peter Hill and Nick Kelly – available from the Archive.



Welsh Mills Society Newsletter 139, April 2020

Dates for the diary mentioned cancellation due to coronavirus. Most importantly the proposed tour of Anglesey mills which will be rescheduled for 2021.

Gerallt Nash wrote an obituary for Peter Edward Davies MBE, a long-standing member known for his links with Melin Aberarth, the mill being the only one in Wales with ventilated millstones. Apart from his MBE, Peter was awarded a lifetime achievement award from the Welsh Ornithological Society.

News from the mills

A picture and description of the damage caused by Storm Ciara at Dobson's Mill, Burgh le Marsh, which lost its sails in a 70mph wind in the storm.

Melin Llynon, Llanddeusant: Richard Holt – a top patisserie chef – reopened the mill and tearoom in 2019 and hopes to open the mill all year round for visitors. He has also recently bought Melin Hywel (also known as Melin Selar), a water mill built in the 18th century and now Grade II* listed. It was restored in 1975 but needs much more attention since it was closed 15 years ago. Richard plans to open it so visitors can witness the process of restoring a mill back to working order. He hopes to arrange to transport visitors between his mills on horseback.

Melin Rhyd hir, Efailnewydd: Adrian and Carol Priest have made significant progress in their restoration of the mill. The miller's house has been restored and they plan to restore the leet and pond, the launder and buckets of the wheel. It is hoped to open the doors to the public during National Mills Weekend.

Pontdolgoch sawmill Caersws: possibly the only working water-powered sawmill and carpenter's workshop surviving in Wales. The owner Tim Chilton has applied for statutory protection so the mill could be preserved as a working mill and an inspector from CADW has visited the property.

Yr Hen Felin, Abergwyngregyn: the former water-powered mill is now heated by an air-source heating system. Cwmni Adfywio Abergwyngregyn Regeneration Company (ARC) is a social enterprise run by a board of directors of village residents. The mill is home to a café, craft workers, a snooker club and holds events for community members. Nearby Ynni Anafon Hydro, also run by ARC, sells power to the National Grid via a £1.3 million hydro-electric plant. By disconnecting the mill from the mains gas supply, the community will save £100 per year. On top of that they will receive £600 per year for 20 years from the Renewable Heat Initiative.

Black Pool Mill, Natbeth: Bluestone Resort have submitted a new planning application to Pembrokeshire Coast National Park. They are applying for permission to develop the existing café within the Grade II* mill into a restaurant with seating for 120 people and offer an "authentic heritage dining experience". The society has sent a letter to the planning authority in support. A copy of the press release describing the application was included in the article. At the beginning of the 1900s the

Mill Group News and Newsletters Review – continued

waterwheel was replaced by a modern turbine, which is still in place, and the original mill machinery will be restored and kept in situ.

Gerallt Nash wrote an article about the mills of Caldey Island. Roughly midway between the village and the old monastery there are the remains of a stone-built watermill, which was driven by an overshot waterwheel. On the northern side of the island was a straight-sided stone-built windmill which was out of use by the first half of the 18th century. However, it was marked on Lewis Morris' chart of the Tenby coast dated 1748 and appears in a painting dated 1825 by the Tenby artist Charles Norris. The only reference to a miller appeared in the census return of 1881, which recorded a miller called William Oriel aged 58. Also included in the article were some photographs of the remains of the watermill, a picture of Lewis Morris' map and a photograph of Charles Norris' painting. The front cover had a photograph of the former windmill before it was abandoned. It was recommended that anyone visiting the island in the future should take a tape measure and camera and take some time to record and interpret the remains of the old watermill.

Mills for sale

Listed this time were:

Dolanog near Llanfair Caereinion in Powys; Fein Cwm at Pennant, Ceredigion; Glan-yr-ynys Mill at Llanpumpsaint, Carmarthenshire; Waterwynch, Pembrokeshire; Glandwr Mill, Gwynedd; Cenarth Mill; Teifi Woollen Mill; Abercerdin – a former woollen mill converted into three dwellings, one unit for sale; Llanwrthwl Mill, Powys; Felin Bele Nant Bran, near Pencader, Carmarthenshire.

Twenty-five years ago

Newsletter 40, April 1995. A report on the AGM in Newcastle Emlyn attended by 50 members of the 200-strong membership. Recording the retirement of officers Len Roberts, Jane Roberts and Tony Parkinson. Information on the windmill at Halkyn. Details of the next meeting were announced along with planned mill visits, there were reports on research and restoration at several mills. The editor at the time included an advert for French wines.

The back cover had two photographs of Felin Rhyd Hir – one in 1959 and one as it is today.

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Book Review

The Lost Mills of South Lanarkshire

Jim Ness

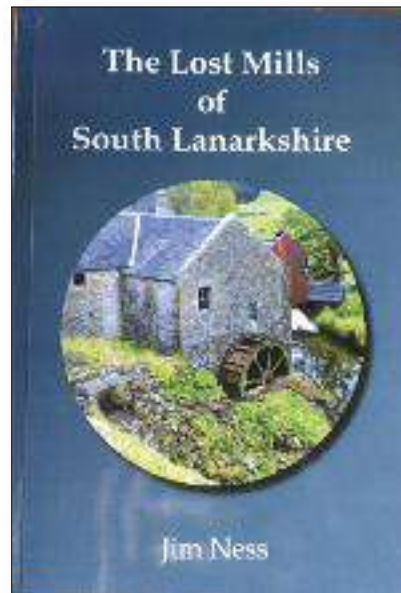
Softback, 168 pages

Extensive B&W and colour photographs, aerial views taken with a drone, maps and old postcards

Published 2020: ISBN 978-1-5272-5852-5

Price in the UK: £15 including postage

This historical guide to these mills covers the area from Crawford in the south to Rutherglen in the north. A good introduction sets the scene of milling in the region. This is an area of the country that has lacked research until now and this publication will be welcomed by the mill enthusiast, researcher or mill owner.



Of the 171 mills included in the book most have a detailed history, with images and maps taken from archival, photographic and archaeological records, pulled together over 10 years by the Clydesdale Mills Society. It includes not only corn mills but waulk (fulling), lint, textile, bone and saw mills, as well as horse gins. The Golden Age of milling in Lanarkshire was the period between 1700 and 1740 when the fine weather produced good crops. From the mid-18th century onwards the weather took a turn for the worse and many of the smaller rural mills had to close down.

Overshot, undershot and breast shot waterwheels were used depending on the flow and gradient, those on a low gradient would need a long leat or lade to supply the water. There appears to be no mention of turbines of any kind. Many of the mills had kilns, some with cast-iron tiles.

Sadly, there are more derelict mills than survivors. Carnwath Mill which milled its last oatmeal around 1946 is now a mill with no roof or windows and with the millstone and hurst open to the elements. Crofthill Lint Mill has just the foundations and parts of the wall now visible and Dunsyre Mill, an oatmeal mill in the centre of the village, requires you to look hard to find the remains in the undergrowth. Medwynbank Mill – once a thriving sawmill – today stands derelict among the undergrowth which has overtaken the mill. If you look hard you can see the cast-iron waterwheel still surviving but rusting away.

At the site of Hyndford Mill, oyster shells were found, presumed to have been crushed for poultry feed. There remain 15 millstones of different types, varying from local types to Kaimhill ones from Ayrshire as well as French Burr stones, one of which had the name Joseph Smith of Edinburgh on it.

"Mouse Mill" holds a fascinating story. The miller in 1684, who had survived the Battle of Bothwell Bridge, saw a John Steel bringing his child to be baptized in Lanark. He was recognised as being one of the covenanting army and the Mouse miller immediately felled him with a rynd from the mill and left him for dead. John Steel survived, but carried the scars till his dying day.

Dripps Mill, Carmichael Mill with full working machinery and Craig Bridge Woollen Mill, rebuilt back to working order after a fire, all still survive thanks to their owners. Carluke is the only windmill still standing and is in the process of repair. The machinery from the mill was kept safe in a nearby building waiting for the chance of its return into the mill.

The SPAB Mills Section ran a fund-raising campaign for the mill some years back, which helped to purchase the Carluke site. The book includes images of the proposals for the site, although initially the curtilage will be developed as a community market garden with the repair of the mill to follow. At the end of the book there is a good bibliography for anyone wanting to read more about the area or do further research.

I found it a fascinating book to read on part of the country I knew little about. It is good to see this area of south Lanarkshire now well documented thanks to Jim Ness.

Mildred

The Lost Mills of South Lanarkshire is available from jimbiggar@hotmail.co.uk

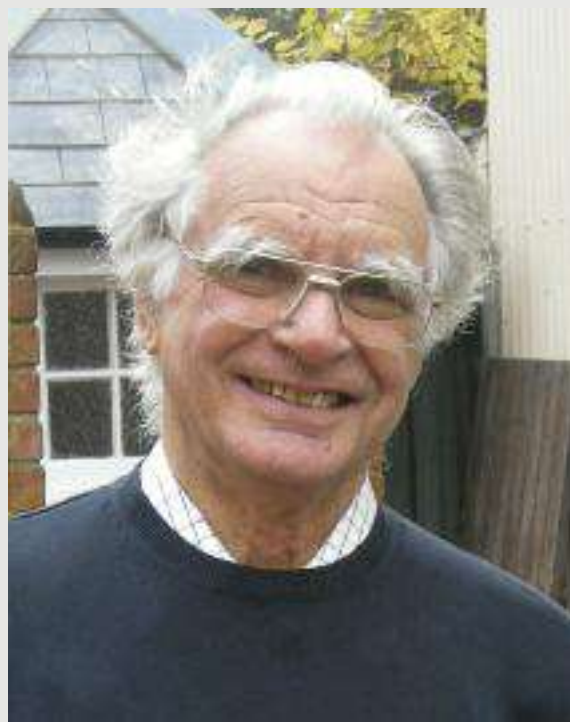
J. Geoff Hawksley 1935-2020

It was with great sadness that we learnt that J. Geoff Hawksley passed away on 25 March. Known to all as 'Jeff', he trained as a marine engineer and served in the Merchant Navy. In 1972 he moved to Hampshire to work as a lecturer at Southampton College of Technology (now Solent University). Water had always been an important theme through his life; his interest in mills began after retirement and he made a particular study of horizontal watermills and of the performance of waterwheels.

Jeff was an active member of TIMS, the SPAB Mills Section and the Hampshire Mills Group (HMG). His loving wife, Mavis, also a TIMS member, joined him on several TIMS Symposia, including Hungary (1997), USA (2000), Portugal (2004) and Holland (2007). He presented papers at three of these events: "How Efficient were Horizontal Waterwheels?" (Transactions of the 10th Symposium, USA), "The Power and Efficiency of Waterwheels in Theory and Practice" (Transactions of the 11th Symposium, Portugal) and "Regolfo Watermills, their Construction and Performance" (Transactions of the 12th Symposium, The Netherlands). In July 2004 his article on "Watermills in Shetland" was published in International Molinology No. 68. He was also a founding member of the TIMS UK Educational Trust.

Jeff was a regular contributor to Mill News, the quarterly magazine of the SPAB Mills Section, and in 2008 the Section published his short volume "The Power and Glory of Waterwheels" (delivered as a Rex Wailes Lecture). He also presented papers at the Section meetings (notably in 2011 and 2016). His work on Regolfo mills was also published in Moulins de France (No. 74, April 2008) under the title "Des Roues à Cuve dans le sud-ouest de la France", and he contributed to the 1998 LTVAS work "Romsey Mills & Waterways". He was also very active in the HMG.

Perhaps his most important legacy was that of a real gentleman, friendly and outgoing. Mildred recalls with



*Jeff pictured at a Mills Archive garden party.
Picture – Sbeila Viner.*

fondness his many trips to Reading to research her collection of old books on watermills, and the long chats that ensued: "My great memory will be the two excellent models he made, one of a copy of a French post mill and the other a horizontal watermill; these he gave to SPAB to auction. I happened to win the auction and treasure them; I take them to the Archive whenever we have an exhibition and display them with the certificates of distinction which Jeff received for making them. He also made a wonderful model of a Portuguese mill and took that over to Portugal for them".

Mildred Cookson and Graham Hackney

Mill News no longer lists mills for sale that are converted. Only mills that have significant machinery will be advertised.

All mills for sale, however, will be put on our website for members to view.

Advertise in Mill News

Does your business offer products or services of interest to those who own or maintain a windmill or watermill?

Mill News is published and circulated quarterly to mill owners and enthusiasts across the country and beyond.

Contact the Mills Section office

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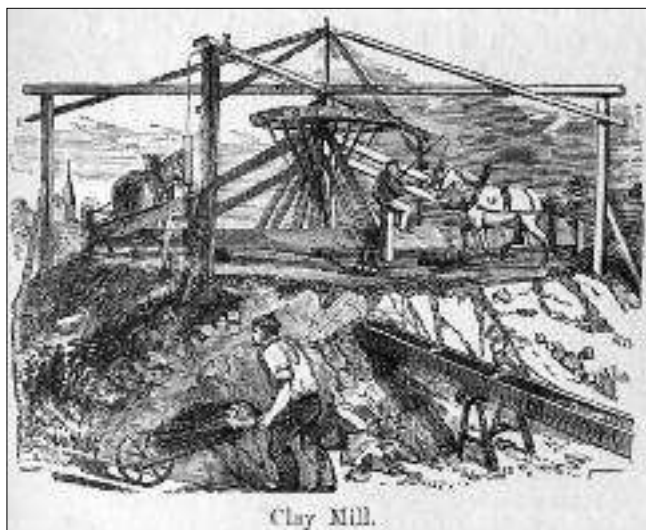
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