Dear TIMS Members and Mill Friends,

It is good to see that despite corona, our E-News Team has managed to present another issue of E-News. This is the 30th issue. For over the last 15 years, twice a year, we have managed to inform you with mill news items, small articles, personal experiences and information about new mill books.

A good reason for a big Thank You to the Team, but also to all those who have contributed over all these years.

By the way, all issues can be downloaded from our website (Publications > TIMS E-News > Download E-News).

In this issue there are quite a few contributions from all over the world, dealing with restoration and maintenance projects, and even projects to build brand new, traditional mills. Each country has its own approach, so it is good to share one’s experiences and learn from one another.

In addition, you will also find an announcement of an exhibition on art and mills in Flanders, an article on the activities at the Stotfold Watermill in times of corona, links to several articles on tide mills from the Tide Mill Institute, a set of correspondence from the sixties on Dutch Windmills in India, and several other articles and news items. Last but not least, some new mill books are described in the book corner.

In the coming months, TIMS plans to organise several digital conferences. In each conference there will be one or two presentations, followed by discussions. All TIMS members will be informed automatically.

The new International Mill Database on our website is expanding rapidly. Over 35,000 mills and 22,000 photos are included at this point in time. Just go to our website, click on "Mill Database", and find out for yourself.

As always, TIMS is looking for contributions on molinological topics. So, just send your articles, news items, information on new mill books and so on to our E-News Team.

Not a member of TIMS yet? Well, it is easy to enroll, just complete the online application form.......
AGENDA

NATIONAL AND REGIONAL MILL DAYS 2021

Usually, you would find here the agenda for the upcoming National and Regional Mill Days. However, because of the extraordinary situation we are all facing with the corona pandemic, it is currently still very uncertain if any Mill Day will be able to take place this Spring.

If you would like to find out more, we advise you to consult the websites of the National and Regional Mill Groups that organise these days. The links can be found in the Spring 2020 issue of E-News (if you don’t have it any longer, it can be downloaded from the TIMS website).

EXHIBITIONS

Flemish Mill Art “Naar Molens Kijken”
Belgium, Ename near Oudenaarde

This exhibition was meant to be held in 2020, but had to be rescheduled. It will now be held from the 19th March to 18th July 2021.

Opening hours: Tuesday to Friday from 9 to 17 hours.
Saturday, Sunday and festive days from 13 to 17 hours.
Closed on Monday.
Free entrance.
Reservations mandatory.
Location: Provincial Heritage Centre, Lotharingenstraat 1, 9700 Oudenaarde, Belgium.
Website: www.oost-vlaanderen.be/naar-molens-kijken
Reservations: reservatie.pam-ename@oost-vlaanderen.be or by phone +32.55300344.
Via Molina is aiming to qualify for the “cultural route” certification by the Council of Europe. Germany, The Netherlands and Denmark are the three countries who founded the organisation. Other European countries are very welcome to join this international project. For more information see the attached Letter of Intent.

Gerald Bost, TIMS Berlin e.V.

WORLD NEWS

SOUTH AFRICA

Discovery in the Karoo, by Louis Boshoff.

I am retired and enjoying the restoration of old tractors and engines. We bought a small farm in the Karoo close to VanWyksdorp region to get away from the crowds. Rumours of a forgotten watermill caught my attention, so I went to have a look at it recently. It is not in a good state but it is still repairable. I plan to convince the owner that it will be an attraction to his guesthouse farm, if it is in running condition. He has access to water from a channel where he can withdraw water at certain times of the week (leibeurt in Afrikaans). A plan will be made to retain the water used to run the mill, for his use as before.

Andy Selfe who was involved with similar projects in the region will hopefully let me have some of his advice, knowledge and help with the project.

It will take time to get going but at least the mill has hope of not getting stripped down or moved from the area.

Some pictures taken are shown here.
Mostert’s Mill Braking Problems, Cape Town (part 2), by Andy Selfe.

In the Fall E-News No. 29 I reported that we need to increase the diameter of the brake wheel by fixing a layer or layers of wood to it. But first it had to be machined round and parallel, with the lathe I had built, which was standing ready to install in the cap of the Mill.

It’s easiest to explain the process with a series of photos and captions.

1. The first job was to dismantle and remove the brake assembly, which is in two parts. We knocked out a pin and lowered the bottom section to the floor; it is still fixed at one end.

2. This shows how little of the lower brake shoe was in contact with the wheel! It was the same on the top section.

3. For the top section, we used two chain-blocks, one to lift it off the wheel, then to the rear of the cap with the second. We put it down on the sheers, out of the way.

4. We could then fix the lathe down on the sheer; measuring to make sure it was parallel with the wind shaft.
5. I first made eight measurements, 90 degrees apart, front and rear, from the lathe top slide to check if we could improve the run-out of the brake wheel by adjusting the wedges between it and the wind shaft. There were only a few millimetres of run-out, but plenty of taper; the wheel’s radius being about 10mm smaller at the front. With a die-grinder and coarse ‘burr’ mounted to the top slide of the lathe, we made a trial cut at the rear of the wheel, turning the sails by hand.

6. There was a fair breeze, so the Millers fitted the leader-boards to the sails and winded the cap.

7. With no brake, we felt it was too dangerous to add any sail, so it was necessary to apply muscle-power from time to time!

8. It was immediately apparent that the wheel was oval, with two opposite high spots which had not been picked up in the measurements; so many successive passes of the cutter were required. It was possible to bring the top slide about 3mm closer to the wheel before each pass.

9. The cut areas increased in size every time.

10. After about five hours and maybe six or seven passes, the wheel was almost completely cut; a few small patches, sited opposite at half a turn apart, remained uncut.
We have decided to fix on a layer of wooden strips cross-ways using ‘Rubberwood’ or ‘Para wood’ from plantations in Malawi [https://vizara-rubbermw.com/products/timber]. Each strip must be radiused on the side against the wheel and the edges tapered so each fits flush with the next. A special cutter will be made for the moulder to machine the planks. The planks will then be cut into short lengths, slightly longer than the width of the wheel, so the ends can be trimmed off neatly. Once attached, they will be machined down in the same way as the wheel was.

To work out the final thickness, some measurements were needed, so we paid the mill a follow-up visit.

11. We first clamped two sheets of hardboard to the upper brake assembly; marked exactly their relationship to one another and drilled and fitted two screws between them. Using a square, I marked out the curve of the brake shoes. We then dismantled and took them away.

12. The next job was to measure the circumference of the wheel, front and back. The 16mm difference means there is still a taper of 5.1mm in diameter. We plan to make one more, light cut to improve this. The average radius now is 879mm.

13. I did a quick trial over the surface of the wheel with a belt sander in one area, to remove blemishes left from machining. The effect was pleasing. The strips must lie flush on the wheel so the glue layer is as thin as possible, for maximum strength.

14. We used the lathe to scribe a line across the face of the wheel. We will do this in many places to make sure that the strips lie square on the wheel as we progressively lay them on.

15. Back at home, we reassembled the two pieces of hardboard and found the centre of curvature of the brake assembly, and the radius.
Finally, Andy Selfe sent us a historic photograph of Mostert’s Mill near Cape Town. It shows the official opening of Mostert’s Mill in 1935, after restoration by Mr Bremer, a millwright from Holland. There is a little story to be told about this festivity. As you can see, there was no wind. Luckily there were bags of previously milled meal to give to the guests in commemorative bags.

CZECHIA

New Windmills in Czechia, by Jan Doubek, Chairman of the Windmills section at the Technical Museum in Brno.

In the last few years, several defunct windmills in the Czech Republic have been successfully “restored”, i.e. their exact replicas have been built. Citizens themselves as well as the local village governments are interested in restoring these historical landmarks. Open-air museums seek to attract more visitors thanks to these unique technical monuments. The first windmill in Bohemia is documented in 1277 in the Premonstratensian monastery in Prague. Later on, other windmills were subsequently built by monasteries, feudal lords, and also cities. It was not until the 18th and 19th centuries that mills began to be built by villages and individuals. The greatest boom of windmills occurred in the second half of the 19th century. We have documented almost 1,000 locations where windmills stood and worked for some time. Most of them were German-type windmills (the whole construction turns around, i.e. post mills); a smaller number consisted of Dutch-type windmills (only the roof and the wind-driven wheel turns around, i.e. cap winders). The arrival of industrial mills, coming from the west, brought a rapid end to the windmills.

To date, 21 windmills with complete or at least partially preserved, original technological equipment have been preserved in our territory. Seventeen of these are open to the public. There are larger or smaller remnants of windmills in 57 other places.
The last of the windmills was built in Spálov in 1930. Since then, they have been disappearing due to old age, acts of war or fires. The first mill that was saved just before its complete destruction was the small tower mill in the village of Spálov in 2012 (GPS: 49°42’0.88 “N, 17°43’27.56” E), see also IM 91, pp 69-71 (Figs 1 and 2). In the village of Jalubí (GPS: 49°7’27.76 “N, 17°25’51.63” E), a replica of a brick mill was built on the foundations of a mill found in the field (Fig. 3). A replica of a mountain windmill (only suitable for one wind direction) was created in the village of Medůvkain 2018 (GPS: 49°42’58.583 “N, 17°99’60.306” E), (Fig. 4). All three mills are located in the east of the country. Until 2020, there were no windmills in the western half of the country that were accessible to the public. This year, a colleague of mine Jiří Chvojka managed to complete his 17-year effort and opened a functional replica of a post mill in the village of Borovnice (GPS: 50°30’27.623 “N, 15°36’9.774” E), where five windmills once stood at the same time. The last one was partially dismantled in 1968 and the remains burned down in 1979. In addition to František Mikyška, who designed the plans for the mill,
students of several vocational apprentice schools took part in its construction (Figs 5-7). It is interesting that the documentation prepared by French molinologists on a trip to Czechoslovakia in 1971, served as a basis for the reconstruction of the mill.

Another replica of a lost post mill, is being completed near Hradec Králové in the Křnovice Open-air Museum. (GPS: 50°11′21.122 “N, 15°58′49.897” E), (Fig. 8). And this is perhaps not the end of the restoration of this kind of cultural heritage. Two open-air museums plan to build replicas in the coming years, and other preserved mills are being repaired.

Members of the Windmills Section at the Technical Museum in Brno participated in the construction of all replicas, mainly in the project preparation and often on a part-time basis.

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Czech Windmill Database: www.povetnik.cz

ROMANIA

Twelve Watermills Renovated in Western Romania.

At the end of 2020, Asociatia Acasa in Banat, in partnership with the Orange Foundation Romania, finished the year-long project “Save the Watermills” which aimed to renovate 12 small watermills in the Western Romanian Banat region. Three touristic watermill trails were also set up in order to help the small communities of Garnic, Sopotu Vechi and Parvova attract more tourists interested in discovering the unique cultural and historical landscape surrounding the watermills. Between July and October 2020, over 160 volunteers participated in the project, amounting to some 4000 workhours over a 10-day period. The numerous restorations carried out included the construction of pathways, steps and small bridges; canals were dug and the areas were cleared of plastic waste. In addition to this, eight roofs had to be replaced. The team managed to restart five mills which had not been functioning for many years. The project had a total budget of 6500 euros.
In 2021, Asociatia Acasa in Banat aims to renovate more watermills in the region (some 250 still survive) and help local communities use traditional milling, done in a sustainable and ecological manner, as a source of income.

More information about the project can be found on www.taramorilorde-apa.ro or www.facebook.com/taramorilordeapa

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Thank you for your assistance!

FINLAND

Fix the Windmill!, by Kirsti Horn.

FIX THE WINDMILL! is a growing series of reports from windmill restoration sites published on the trilingual webpage https://www.sustainableheritage.eu/  
These aim to be examples of good traditional building and restoration practises for the owners and repairers of different kinds of windmills in Finland. Owners are also invited to share their good and less good experiences with each other through photographic documentation.  
Report no. 1 is about the history of American windpumps in Finland and the repair of one, called Alapihan tuulipumppu. There are several setbacks in the restoration process but finally, a sustainable result is achieved. Finnish text and photo by Pekka Piironen, the owner.  
https://www.sustainableheritage.eu/miten-tuulimylly-korjataan-nro-1/
Reports nos. 2, 3 and 4 describe the repairs of certain important parts of a typical windmill, Västergård kvarn, in the Turku archipelago. Peter Karlsson is the millwright; Finnish and Swedish text and photo by Kirsti Horn, arch. AA Dipl.


UNITED KINGDOM

Foxton Windpump, Cambridgeshire, England; Update, by Graham Hackney.

When I took on the job of TIMS Editor, in 2016, I visited our chosen local publisher (Langham Press) at Foxton, Cambridgeshire, and took the opportunity to search out the little windpump there. Very little information existed on the mill, often described as a ‘drainage mill’, but there were frequent visitors there in the 1990s following the restoration carried out on behalf of the owners (Welch’s Transport).

However, by 2016 the mill was in a poor condition; the six sails had been badly damaged during a tail-winding event in 1997, the rudder had fallen off and ivy had grown through the boarding of the mill causing rot to set in.

As an active partner of the Wicken Cornmill Partnership I was able to involve the team there in a possible restoration, and with the support of the owner this began in late 2017.

The broken sails were taken back to Wicken for restoration, with new stocks and sail bars of Douglas fir. Additional strengthening steel bars were made for the attachment points and to link the outermost edges of the sails, and by Autumn 2018 the new sails were reassembled on their hub (which is very much like a fantail hub), ready to be taken back to Foxton. A completely new rudder assembly was also made at our workshop. Meanwhile, work began to restore the body of the mill; replacing rotten timbers and fixing new redwood boards with marine ply cover strips (to recreate the original black & white effect). The diameter of the sails is 4.39 m, and the mill is 5.67 m tall.

The mill was built around 1873 to pump drinking water from a deep artesian borehole up to nearby Foxton House. The owner of the house and estate at that time, Canon Selwyn, had several borehole Dr. Pearce attempts to apply the brake.
pumps set up in the village; before that the villagers drew their water from the brook. The pump is still in working order in the mill and is stamped ‘Tylor & Sons, London’, so can be dated to before 1892.

The iron curb is live, with supporting wheels set into the iron cap circle, and centring jockey wheels attached to the curb itself. A series of brackets connect the curb to the cap. The windshaft/crankshaft has wooden bearing blocks, three auto-lubes and a brake composed of a rimmed wheel and a brake band which is connected by a rod to the lever at the back of the mill. After some persuasion and a lot of grease, all of the machinery was set working again, and in September of 2020 the new rudder was fitted, followed by the first two sails. The sails were then able to turn, and the cap to turn into the wind for the first time in 23 years.

Although the old pump is still in-situ, it has no ‘prime’ and the borehole is no longer licenced. So, to allow the sails to turn against a resistance, a damper assembly will be fitted to the lower end of the drive shaft. The sail shutters will need to be locked ‘open’ to prevent further storm damage. The paddock within which the mill stands is classified as a ‘positive green space’ within the Foxton Conservation Area, but the future maintenance of the mill within its environment is essential.

The author would like to thank the members of the Wicken Windmill Partnership, and especially Elwyn Davies, for their work on this project. A full report on the restoration and history of the mill is in preparation, hopefully for publication in a future IM.

UNITED STATES

When Is an Old Mill a New Mill? Part 2, by Sandy Lerner.

In the last article on Locke’s Mill near Berryville, Virginia (see TIMS E-News Vol. 28), we talked about the history of the mill and our plans for its future. A year on, we’ve very much moved forward with our vision for restoring the Evans-type water-driven machinery that was likely a part of the new mill established in 1876. Phase 1 of our restoration was detailed in that previous article. We had not originally planned to do this work in several phases, but owing to our having to produce grist for our customers throughout the restoration, it was necessary to schedule the work in multiple, shorter downtimes and implement the restoration work in between grindings.

We had two goals for Phase 2 of the restoration: first, to ease the
burden on the millers, we wanted to re-implement the Evans methods whereby grain comes in, is carried up to hoppers on the third floor, and thence from this top floor coming down via elevators, augers, and chutes to the ultimate bagging and shipping areas. This would relieve the millers from having to lift many heavy sacks of grain multiple times, pouring the grain and meal into the hoppers and processing machines, running up and down stairs, and just generally working too hard. The second goal was to provide a good learning experience for visitors to the mill. The majority of our visitors simply have no idea what mills do. So, pointing out things like the spur gear and even the waterwheel is a bit tenuous in terms of their understanding.

The implementation of the first goal, the restoration of the Evans machinery, involved moving most of the equipment currently on the first (ground) floor to the second floor, installing elevators from the first floor to the second and third floors, installing the lineshaft and pulley systems throughout the second and third floors, as well as installing a rail system throughout the second floor. The rail and lineshaft systems were the heart of the Phase 2 work, including a catshead rail system, and series of rail spurs to get bulk product to the flour collectors, bolter, sifter, fanning mill, rollers and hoppers, all running off lineshafts connected directly to gearing off the waterwheel. Our new mill diagram is below; all of our beautiful new diagrams have been done by our artist-in-residence, Chloe Darke.
To achieve our second goal, the creation of a valuable learning experience for visitors, a lot of effort went into documenting the history of the mill and the changes that took place over time, from the mill’s ownership to the changes in the milling technology. Our area of the United States saw very early settlement by Europeans. Our first president, George Washington, owned a property directly across the Shenandoah River from Locke’s Mill. Some of our visitors find this history more interesting than the actual mill itself. The various maps and historical documentation of this area on the river can be seen on our website, LockesMillGrains.com. Also on the website is a timeline of milling technology from the very early use of hand grinding stones through to the Industrial Revolution and the era of the establishment of Locke’s mill. This historical work was a part of the Phase 1 restoration.

In Phase 2, we produced over two dozen signs illustrating the paths the grain takes throughout the mill, individual machines, the lineshaft, hoppers, and other stations, all to acquaint the public with how the mill functions. All of this research and artwork took many hours, but our efforts seemed well received at our recent holiday open house this past December 6. Many people spent time looking at the diagrams and explanations at the stations, and seemed to appreciate being able to understand about the mill and its workings.

However, my high point was something I fondly refer to as our “scream gauge.” Of course, this is a stream gauge, but since it took me more than two full years to get the data, surveys, hydrology studies, mean stream level and other information together in one place, so we could calculate exactly where on the building the water levels have risen to in the history of the floods along the Shenandoah, the screaming part seemed apt. A picture of the fruit of my labors is below. The highest recorded flood since 1900 was in 1934 when water came up to the bedstone on the second floor. For a comparison, the June 2018 flood, pictured at left, is only about six feet (2m) above the level of the tailrace.
Of course, all of this work did not go smoothly, nor are we exactly finished there will be a Phase 3. There were a few unpleasant surprises, such as when I walked in the door to be confronted with two motors running the elevators that move the grain from the collection point on the second floor to the hoppers on third floor. No one had understood that this was our consultant’s plan. Nor did we understand how jarring it would be to see new sheet metal work just inside the door which was the housing for the elevators. In the end we boxed in the motors for a temporary solution and furred out the sheet metal so as to make them sit more easily within the framework of the old mill. Phase 3, which we hadn’t planned on, will see the replacement of these two motors and a direct drive on the first-floor elevators off the main waterwheel gearing complex.

Other things went much more smoothly, such as the installation of the rail system; work done by Billy Holsinger and his crew from Ayrshire Farm, under the very able management of Chris Damewood, our farm manager. We had determined that we needed much better lighting within the mill, so the first step in the process of the installation of the rail system was to remove all of the old, mangled and very visible electrical wiring from all three floors. We took this opportunity to install the wiring in between the framing joists which, in Phase 3, will be clad with green, rough timber and so hidden from view.

Once that was done, the rail system, catshead beam, and the heavy carpentry necessary to increase the bearing strength of the west mill structure to support the 3,000-pound totes for incoming bulk grain was done. Additionally, for the first time, we were able to insert an in-line scale so that we could weigh the incoming grain and know exactly how much grain to charge for, as well as our final delivery rate on the finished product. Now, grain comes in off the truck onto the catshead rail and pulley system, is weighed by the rail scale, and slides directly onto the ceiling rail of the second floor. From there, the rail has many options: going to either the millstone, fanning mill, roller, sifter, or - most usually - to the catchment in the floor which then moves the grain to the elevators.
In keeping with our mission to make the mill as educational for visitors as possible, we installed windows into the elevators, augurs, and machinery, such as the sifter, so that visitors could see what was actually going on inside the mechanisms. You can see the window to the left of the grain tote. This too has also proved very popular. We are so pleased with the response to these efforts that we have a plan in Phase 3 to put a window into the main shaft section so that people can see it turning off the great spur gear and the waterwheel.

Recall, that the original restoration of the mill did not replace the fourth floor of the original building, so we were somewhat limited in our ability to re-implement a complete Evans design. In our modified design, the grain comes up to the third floor and is stored in one of two, large hoppers: one for organic grain and one for what we refer to as “chemical” grain. Also recall, that we only use the chemical side for very large quantities of grain, a ton or more per grind, for the distilleries. We offer a special rate for the distillers and will not fan or bolt these large quantities of grain. Only organic grain can pass through to the processing equipment on the organic side of the second floor, including the 1920s fanning mill, roller mill (for which we are looking for a larger replacement), and a new sifter. We have a very large bolter on the third floor that can be used for chemical product and an elevator to move the large quantities of grain from the grindstones on the second floor back up to the third-floor bolter.

In addition to work on the inside, we took the opportunity to reroof the mill building, install an exhaust fan and cupola on the new roof to help with the sweltering heats of summer in Virginia, and paint the outside of the building. In Phase 1 we had installed extractor fans on the second and third floor windows to allow for better air circulation. With the roof vent and fan, the “air conditioning” system was now complete. In Phase 3 we are adding insulation on the second floor, at least enough to keep out the worst of the winter drafts, and will be applying rough-cut, green timber as cladding on the insides of the second-floor walls. This will also hide
In Phase 3, we will continue our work on the building, damp-proofing the stone foundation on the ground floor and parging it with limewash. As the mill sits at the base of a substantial hill, it’s neither an easy task nor is it going to be completely successful, but we hope it will be an improvement. Phase 3 will also include a continuation of the work on the upper millpond. We had hoped to get this done in Phase 2, but it just wasn’t feasible. The engineering estimate was beyond anything any of us had ever considered as a possibility (gasp!), so we are now looking for other ways to improve the consistency of our water supply. However, we were able to re-dig and restore the stream channel, as well as repair leaks in the flume by cladding it with galvanized steel, and covering the flume with galvanized netting to keep out debris that previously, frequently clogged the water supply. By a series of largely remedial maintenance tasks that were long overdue, we were able—without the huge expense necessary for rebuilding the weir system in the upper millpond—to achieve our goal of 600 gallons of water per minute. This was our estimate of the amount of water throughput we would need to run both sets of millstones simultaneously, as well as the various auger and lineshaft systems. It remains to be seen if we will be able to support this level of water flow in all seasons of the year. So far, we’ve been very lucky with our rainfall and have had good amounts of water for the increased demands on our Fitz waterwheel.

We have closed for this month, January 2021, to take advantage of the low visitor rates, due to winter weather and COVID, to work on our insulation projects on the ground and second floors. We will be reopening in February with our usual bimonthly schedules for grinding, as published on our website. I should also mention that, at our
December holiday, open house, we debuted our cooking mixes prepared by our wonderful mill manager, Erin Conlon. At present, we have 17 different grists for sale on our website, depending upon availability, and eight cooking mixes for pancakes, corn cakes, gluten-free breads, and other foods. As you can see in the photo below, we also sell honey from Ayrshire Farm, yeast, organic wheat gluten, and wheat bran along with our grain products, as well as gift bags, T-shirts, aprons and other things that our visitors seem to enjoy having as souvenirs from Locke’s Mill.

We’re very excited about Phase 3, and work has already begun on our new list that, thankfully, is much shorter than the list for Phase 2. It’s been a great joy to see the mill transformed from essentially two sets of grinding stones and miller-power to two sets of grinding stones and everything else with waterpower. It’s what Oliver Evans would have wanted.

Looking Back, As Retirement Sets In, by Charlie Yeske.

Forty-five years and eight months after first entering the Stover-Myers Mill (SMM) in Bucks County, PA, I have figuratively slapped the flour dust off my clothes for the last time there, leaving behind thousands of my footprints on the milling floor and up and down the flights of steps between the four levels. While true that real time milling operations have only recently been restored, the few seasons of grinding corn have left me hopelessly addicted to the lure, history, and camaraderie valued and enjoyed within the associated experiences.

Not knowing a runner from a bedstone, a spout from a chute, milling from grinding, a race from a ditch, I managed to progress in my never-to-end “miller training” in the late ‘70’s with the incredible help of SPOOM membership and especially Old Mill News. Additionally, over the next decades, four remarkable persons provided me with the insight, know-how, and drive needed to remain convinced that my life’s professional calling was indeed warranted.

John Campbell, a millwright from Philadelphia, and 84 years young at the time, answered a call to check conditions at SMM. Before he left on his first visit, he was in the millrace (dry then) with county workmen, setting benchmarks and elevations! Milling was not only his profession, but also his passion. On succeeding visits, we drove around Bucks County in his 1955 Chevy so he could point out, and jump out to see closer, mills that he knew from previous years of work, including one restored and now well known, Castle Valley Mill. At dinner one night (he always took me to the finest restaurants), he revealed how he got
the job to construct Sudbury Mill for Henry Ford. At dinner with “Mr. Ford” (as he addressed him in memory), John had simply tasted his food before adding seasoning, which other millwrights had not done! “Mr. Ford” valued prior survey and investigation before action, it seems.

Charlie Howell was undeniably an unforgettable figure to all who had the privilege of his acquaintance. He was, in life and legend, the miller that we saw milling at Philipsburg Manor. Whether it was his prominent accent, his head to one side as he thought, his jovial attitude, or the vast wealth of milling knowledge that his heritage and life possessed, he was a beloved miller and friend to all. He assisted at SMM a few times and left behind voice recordings, in one of which he was attempting to ascertain the flow paths of grain and flour through several elevators. After an elapsed period he paused, stymied and puzzled, and somewhat embarrassed at being stumped. Getting ready to leave, he glanced at the back sides of the elevators and began laughing, as they all had been chalked labeled a century before!

Derek Ogden and I worked together to preserve and restore SMM from 1982 through 2018. He prepared its first conditions assessment, then restoration plans for milling operations, and then plans for its attached “sash” or vertical cut sawmill. He returned to revise the plans as deterioration continued. When restoration finally ensued, his plans and consulting advice during those stages were invaluable to the success realized to date. Within those years of work and friendship, he was totally unselfish in sharing his knowledge of mills and milling with me and providing guidance whenever asked. I got to know him particularly well once I joined his committee planning the 2000 conference of the International Molinological Society (TIMS), the culmination of which, for me, was a continued participation in TIMS and a continued friendship with TIMS members around the world.

The fourth person to recognize is Ben Hassett, a millwright and friend for many years. Following his apprenticeship with Derek, and many subsequent restoration projects, Ben also spent some time repairing and restoring elements of SMM and instructing me on various important issues of maintenance. I have included Ben not only for the memories of those times together but more importantly as a link between what we are all professing to value - that is, the preservation of old mills--and the reality that unless more individuals, like Ben, are taken by and enter the skilled profession of millwrighting, our mission will inevitably be compromised. As one dedicated to that mission, I am encouraged by Ben’s example, his accomplishments, and commitment to his profession. These years past have provided me with exceptional opportunities that have widened my appreciation for what “millers of by-gone eras” possessed in skills and fortitude. The construction of dams and the buildings, dealing with natural disasters, the constant maintenance and repair of equipment; and the milling processes, “modernizing” or perishing, marketing trends in products – all to be considered in milling’s history. It was these components of milling that I tried to convey to my...
audiences at SMM, and which gave me such satisfaction when I watched their reactions when they dipped their hands into the fineness of stone-ground flour. I’ve no regrets, saving a part of our American history as my life’s work and spreading its importance to those I was fortunate enough to teach.

Yes, retired – but not tired of milling!

News from the Tide Mill Institute

*The Tide Mill Institute*

Posted on October 23, 2020:
Tidal Turbines Installed in New York’s East River
[Tidal Turbines Installed in New York’s East River - Tide Mill Institute](#)

Posted on November 1, 2020:
Filming a Tide Mill Documentary
[Filming a Tide Mill Documentary - Tide Mill Institute](#)

Posted on November 7, 2020
Where Does Tide Power Come From?
[Where Does Tide Power Come From? - Tide Mill Institute](#)

Posted on November 24, 2020
New Tide Mill Video – Not Just for Locals
(Includes a video on the Tide Mills of Kitterey)
[New Tide Mill Video – Not Just for Locals - Tide Mill Institute](#)

Posted on December 23, 2020
Sawmills and the Economy of Early New England
[Sawmills and the Economy of Early New England - Tide Mill Institute](#)

Posted on January 3, 2021
Brouwer’s or Freeke’s Mill, Brooklyn, New York. An early New Netherland Tide Mill
[Brouwer’s or Freeke’s Mill (tidemillinstitute.org)](#)

Posted on January 20, 2021
Tide Mills of Rhode Island, by Walter E. Minchinton
Article in Rhode Island History, Volume 56, Number 1 (February 1998)
[1998_Feb.pdf (rihs.org)](#)

Posted on January 30, 2021
Quincy’s Souther Tide Mill, by John Goff (article from July 1998)
[TMI Paper - Souther Tide Mill 9.pdf (tidemillinstitute.org)](#)

Posted on February 7, 2021
Discovering a Tide Mill in Truro, by Tim Richards
[Discovering a Tide Mill in Truro - Tide Mill Institute](#)
UK

**Stotfold Watermill News, Stotfold, Bedfordshire**, by the Miller - Ray Kilby.

For obvious reasons our watermill has not been open to the public in 2020 and it looks to stay that way for a bit longer. It has, however, continued to mill during this period, devouring 9 tonnes of grain to supply flour to local outlets. In December we took in 2 ½ tonnes of last year’s harvest which would not normally be delivered until late February. Both stones (Samuel and George) worked alternately to keep up with demand in the early months of the pandemic but later Samuel was furloughed to reduce maintenance time.

The end of last year saw scaffolding erected around the mill and the building was given a complete makeover. A one man, 3” brush-mammoth task!

The Tea Room has been reorganised and numerous screens put in place to safeguard the public when circumstances permit them to visit.

There are some new exhibits: a restored grain conveyor, which was located on the ground floor prior to the mill being burnt down in 1992, a restored 1885 Ransome lawn mower and an old German style, pattern carpenterswork bench installed with period fittings.

I have created a new donation box where each inserted coin works four different water wheels as it travels down. Sadly, this has yet to be used.

The watermill’s nature reserve, which is adjacent to the river, has had many visitors in the months of lockdown, as a venue of interest and exercise, albeit rather muddy at times!

Finally, we have recently secured the use of adjacent land to enable us to run our two steam events in May and October, which unfortunately had to be cancelled last year and sadly the decision was recently taken to cancel this year’s May event.

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**Fig. 1. Ray Kilby, the miller, with Samuel and George in the background.**

**Fig. 2. Ray Kilby hoisting a sack of grain.**

**Fig. 3. Stotfold Watermill in scaffolding.**
In This Issue

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In this issue...

Central Baza Danych o Młynach w Polsce (Central Database of Mills in Poland) - CeBaDoM, is an interactive database (open access) containing geospatial information about former structures using water and wind energy within the present and former Polish borders. Its establishment was preceded by many years of interdisciplinary research (both field studies and archival queries), carried out as part of four research projects financed from public funds in Poland, Germany and the EU. It is part of the inventory of the Polish cultural landscape, which is largely vanishing or already lost. In the first stage, the authors intend to present as extensive information as possible about the location of mills. In the longer term, information about individual structures will be successively detailed and supplemented, hopefully with a large participation of readers-recipients of the RCIN platform.

The database contains a lot of information about the types of mill, their purpose, location, and periods of operation. The information may be of interest to hobbyists or enthusiasts of local history and can be the basis for further detailed analyses and research. The information may also be useful for investment work in the natural environment, e.g. for investors looking for places for new structures generating electricity from renewable energy sources (small water and wind power plants), or for the authorities whose task is to restore available water resources.

CeBaDoM is available on the platform of the RCIN: https://rcin.org.pl/dlibra/collectiondescription/440, under the implementation of the Otwarte Zasoby Naukowe w Repozytorium Cyfrowym Instytutów Naukowych (Open Scientific Resources project in the Digital Repository of Scientific Institutes OZwRCIN), financed from European Funds and the state budget, under the Program Operacyjny Polska Cyfrowa (Digital Poland Operational Programme) subaction 2.3.1 ‘Cyfrowe udostępnianie informacji sektora publicznego ze źródeł administracyjnych i zasobów nauki’ – ‘Digital sharing of public sector information from administrative sources and scientific resources’ (grant number POPC.02.03.01-00-0029/17).

GERMANY

The Gifhorn Mill Museum Will Be Sold
Gifhorn, 9th December 2020

The city of Gifhorn intends to buy the International Mill Museum. The owners of the mill museum, Horst Wrobel (85) and his daughter Rosita, submitted a corresponding purchase offer to the city in September, which was notarised. Following the presentation of the offer and discussions
with the parliamentary groups, Mayor Matthias Nerlich made the city’s intention to purchase public on Tuesday, 8th December 2020. A price for the 14-hectare site was not mentioned at first. The final purchase decision is to be made in connection with the adoption of the 2021 budget at the council meeting in March 2021 by a vote of the council members.

Gifhorn wants to preserve, maintain and expand the museum as a tourist attraction, as the city announced.

**Deutsches Technikmuseum – Berlin**

Berlin, 10th January 2021

The head of the Museum’s Mills Department (Energy, Technology and Supply), Dr Jochen Hennig, left the museum at the end of 2020. It is for private reasons that he is moving to Vienna. The question will be, what will happen to the mills in the Deutsches Technik Museum? In 2019 TIMS members noted that the mills urgently need to be restored. I myself had a good contact with Jochen Henning and he has already carried out many activities. Expert opinions have been drawn up, quotations have been obtained and some minor repair work has already been carried out. Funding is available in 2021 for the cap restoration of the Foline (the Dutch Mill) and the construction of new sails for the post mill, and the tenders for this work have at least been prepared. Dr Hennig’s position should be filled “immediately”, but nevertheless there will probably be a gap of a few months. We very much hope that there will be a successor soon in order to pursue an adequate revival of the mills.

Gerald Bost, Berlin
In his study “Wasser- und Windmühlen in Europa in der Spätantike und dem Mittelalter” issued in 2019, and reviewed by Gerald Bost in E-News No. 28, Professor Andreas Ney mentions watermills with height-adjustable waterwheels. By using this technique, the mill could meet with changing water levels in the river it was built on. An example of this fascinating technique is described on pp 48-50: the Gedembergmühle in the small town of Werne on the river Lippe, about 25 kilometers NE of Dortmund (Kreis Unna, Northrhine-Westphalia).

TIMS member Ton Meesters sent us a unique photograph of this mill, showing a close-up of the hanging waterwheels. We are happy to show it here because there is little pictorial evidence of this old technique. According to Professor Ney, the Gedembergmühle dates back to the 12th century. The last renovation took place in 1690.

On an early 20th century map, the mill is indicated with the abbreviation “L.M.” which stands for “Lohmühle”. This means that the mill worked as a tanbark mill. Sadly, it no longer exists. It must have been demolished sometime after the Second World War (the year 1956 is mentioned). Before demolition, however, the mill was measured and drawn. Later on, a model was built based on these drawings, which can still be admired in the local museum at Werne.

Finally, in the case of the Gedembergmühle, it should be noted that not only the waterwheels moved up and down, but the complete machinery with them. The mill was therefore referred to as a “Hängemühle” or “hanging mill”.

For more information, please consult this website: http://genwiki.genealogy.net/H%C3%A4ngem%C3%BChle
ADVERSTISEMENT

A new look for historic mills/ Historische mühlen in neuem glanz

The renovation of windmills is a sensitive matter. Often listed as a historical monument, many aspects of these special buildings have to be considered. With its roof and facade products made of aluminium, PREFA offers flexible solutions for the renovation of windmills. The lightweight metal combines functionality, lightness, safety and sustainability - qualities that other materials also have, but none in this unique combination. Metal and historic buildings can ideally complement each other and benefit from each other. Thanks to aluminium cladding, buildings could be saved from demolition. And it is not uncommon for aluminium to give an object a special charm that is not even apparent with other building materials. Builders who choose PREFA also receive a 40-year guarantee on their quality product.

www.prefa.de

Ostermühle Ubbenjans, Lower Saxony, Germany
Facade cladding: PREFA rhomb 29x29, P.10 stone grey
Roof cladding: roof shingle, P.10 stone grey

Eyendorf Windmill, Lower Saxony, Germany
Facade cladding: PREFA Facade shingle, colour prefa white
FRANCE

Barbegal, A Roman Water Powered Milling Complex

....An international team of scientists has reconstructed the hydraulic operations of the 1,900-year-old Barbegal industrial watermill complex in southern France, revealing the subtle brilliance of antiquity’s engineers....

Thus starts, an online article on this intriguing subject:

Check here.

The full report was published in the journal “Scientific Reports”.

INDIA

Dutch Windmills in India?

TIMS member Erik Stoop, volunteer at the Archive of the Dutch Mill Society in Amsterdam, found correspondence from the 1960s on Dutch windmills in India. Were there really? See for yourself!

In the first letter, dated 16th March 1961, the Dutch Consul-General in Bombay (present-day Mumbai) informs the Economic Information Service in The Hague, The Netherlands about the installation of 37 Dutch-style windmills in India, in order to improve the water supply for both irrigation and domestic use, and of the intention to put up even more mills in the near future.

A copy of this letter is sent to the Dutch Mill Society.

[link to Letter No 1]

The second letter, dated 12th May 1961, is written by the Secretary of the Dutch Mill Society and directed to the Dutch Consul-General in Bombay. In the letter, the only one in the set that is in the Dutch language, the Society asks for further details on the windmills mentioned in the Consul-Generals letter of 16th March 1961. The first question they ask is, what type of mill has been erected in India? In addition, the Society asks for some technical specifications like the water raising device used, the length of the sails and the wind speed that is required by the mills. Finally, a few photographs are asked for, maximum size 13 x 18 cm (otherwise they would not fit in their filing cabinet, surely!).

[link to Letter No 2]
A short reply by the Bombay-based Consul-General is sent to Amsterdam on 29th June 1961, in which he states that at the moment he has neither the technical details that were asked for nor any photographs readily available, but he promises to find out.

[link to Letter No 3]

He does indeed and on the 5th August 1961, he sends the Dutch Mill Society a brochure in which all details are given …

[link to Letter No 4 and brochure]

**BOOK CORNER, by Leo van der Drift.**

In E-News issue 29, we had to skip the Book Corner due to a lack of new publications. This time, we can offer you a selection of recently published books again. We start with a big one, both with regard to its size as well as to its content!

Please note that prices are indicative and postage comes extra, unless stated otherwise.

1. **Le Grand Livre technique des Moulins à Vent,** by Jean Bruggeman.

Jean Bruggeman, well known molinologist for his historical publications on the mills in the north of France, has now published a totally different work. This “Great Technical Windmill Book”, a quality edition on A3 format, is a big work in all aspects. It took the author 40 years to collect the information and produce an amazing number of technical drawings that form the focus of this book. This means that there is a lot to see, while textual explications are kept relatively short, making it also attractive for those with a limited or no command of the French language. Apart from the many technical drawings, there are also a lot of historic as well as modern photographs to enjoy.

The book is divided into two parts: the post mill and the tower mill. For the post mill, the author did not limit himself to the mills in the north of France, but also presents mills from the Champagne, Paris, Beauce and Anjou regions. Even a few from Belgium are shown.

The part on tower mills focusses more exclusively on the north of the country. It also includes a few smock mills and even a small drainage mill, the last one of its kind, that was salvaged not long ago and now has a new place in the Musée du Marais near Saint-Omer.

The measured drawings are so clear, most of them reproduced at a scale of 1:40, that one could easily use them to make models. The work concludes with a short section on watermills.

In French.

400 pages, hard cover, A3 size, printed on 150 grams semi-gloss paper, numerous technical drawings and photographs, comes with cardboard protective box.


Only 200 copies printed, so don’t wait if you are interested! To be ordered from the author, email Jeanbruggeman@nordnet.fr
2. Alte Mühlen in Bayern, by Gerhard Trumler and Andreas Ehrhardt.

A second book, not particularly small in size, from Bavaria, Germany. It offers a photographic visit to numerous watermills across the seven regions of Bavaria. The photographs are of superb quality and give both external as well as many internal views. The world of yesterday is thus made visible and kept for posterity. Photographer Gerhard Trumler produced a similar volume on the watermills in Austria. Apart from the introduction and a section on the technique of mills at the end, the text is limited to the captions. The book concludes with a list of more than 500 watermills that can still be found in Bavaria. In German.

224 pages, hard cover, size 25 x 32 cm, numerous photographs in full colour.


A newly released coffee table book featuring 112 watermills across North America. The photographs are very impressive and unique to Boyd’s photographic style. The script, on the other hand, is kept rather general, sometimes even “flowery”, and not very informative, especially not for those knowing a lot already about mills and milling history.

However, it seems worth the price and would be more than a delight to have in one’s library of mill publications. In English.

264 pages, hard cover, size 25.5 x 31 cm, 151 coloured photographs and 1 map.


The windmill is a machine that has been present in the West since the Middle Ages and which from the outset presented a physical and overall architectural style that it still retains today. The story offered in this book revolves around four technical variants, each presenting a particular type of windmill and located in a specific place, at a certain time: oil mills in Lille, France, in the 18th and 19th centuries; electricity generating windmills in Denmark at the turn of the 20th century; wind turbines in France in the 1950s, and modern wind turbines in northern Germany at the end of the 20th century. For each of these, the technical and socio-economic dynamics that shape the windmills are presented, based on a detailed historical analysis. On the basis of these stories, two long-term indicators are defined which shed new light on the overall history of the windmill, linking technical research on efficiency and the social requirement of regular production.

In French.
220 pages, soft cover.

5. Windmills of Berkshire and Oxfordshire, by Guy Blythman.

Berkshire and Oxfordshire, two UK counties just west of London, are not particularly well-known for their windmills. In this work, which is essentially a gazetteer, the author has tried to bring together all information available. For some windmills, no more than a single reference could be found, while for others a more extensive account could be given. The mills are presented in alphabetical order. Maps for each county do not lack. All in all, a well-produced reference that is easy to consult.

In English.
92 pages, soft cover, A4 size, illustrated with almost 100 fine historic pictures, mostly from the Archive, and a few more recent ones by the author.


Available from the Mills Archive Book Shop: Books – The Mills Archive

Huntingdonshire, one of England’s smallest, historic counties, is situated close to Cambridge. The mills on the Great Ouse, that runs through this county, are the subject of this study. For such a small area, there was an unusually wide variety of milling businesses. Many grew into considerable companies by installing roller mills and/or converting to steam power. An example in case is Houghton Mill, still standing today.

In English.

40 pages, soft cover, A4 size, 54 illustrations, mostly from the Archive.


Available from the Mills Archive Book Shop: Books – The Mills Archive

MESSAGE FROM THE E-NEWS TEAM

Dear friends we really hope that you are healthy and safe with this pandemic that affects the whole world. We are still here collecting mill news from all around the world and also a great number of new mill publications. We are dedicated to spreading this information to all mill friends. If you have news items, short articles, books, announcements or something else that you want to share, please send them to the editor, Leo van der Drift, e-mail: lvddrift@telfort.nl.

This Newsletter cannot exist without you!

Please be informed that the next issue of E-News will be sent out in October 2021.