TMI’s 11th conference to be in Beverly MA

Titled “TIDE MILL ARCHAEOLOGY AND HERITAGE,” this year’s TMI conference will be held November 6 & 7 in Beverly Massachusetts, just across the street from the location of a historic grist mill whose foundation details are clearly visible in the mud. Archaeologists who have recently studied the site will help conduct a field trip to the site. Once again this conference will offer a molinological pot pourri, exploring the heritage of tide mills internationally and locally and mixing a wide variety of presentations from established researchers and newcomers. See next page for more details.

Painting – THE FRIEND MILL - from the collection of the Beverly Historical Society

CONFEREENCE LOCATION - We will meet at a doubly-historic location in Beverly. CUMMNGS CENTER is right across the street from the site of a 17th century tide mill. Built in 1904, the CENTER is itself of historic importance as one of the most significant early reinforced concrete industrial buildings in America, for years the home of the famous United Shoe Machinery works. And YES, that’s a tide mill’s stone at its corner!

Highlights of TMI’s 11th
“NENDRUM – The Oldest Tide Mill in the World” - The featured tide mill at this year’s TIDE MILL INSTITUTE conference is almost fourteen hundred years old! Its bed-logs were cut from an Irish forest in the year 619 AD, half way between the time of St. Patrick and King Alfred the Great. The mill was part of an ancient monastery at Nendrum, Northern Ireland, which underwent some early archaeological study in the 1920’s. But an awareness and full understanding of the tide mill (actually there were two of them) wasn’t pinned down until a chance discovery in 1999 revealed a piece of 7-12th century ceramic and a fragment of a granite mill-stone. Two more years of intense work in the tidal mud and 6 more of follow-up study proved out the fascinating details, which weren’t published until 2007.

Thomas McErlean, an archaeological research fellow at the University of Ulster led that archaeological study. Those who were lucky to hear his spellbinding presentation about that work at our 4th conference in 2008 still remember it. We’re thrilled that he was able to arrange his busy schedule to once again visit and will share his story with today’s larger and more diverse TMI audience.

“TIDE POWER IN COLONIAL BOSTON” – Duane Lucia, curator of Boston’s West End Museum will offer insight into that town’s early tide mill history and describe how he gathered material and produced an exceptional exhibit about the topic. (See a report about the exhibit on a later page.)

“224 YEARS OF TIDE MILLING ON BEVERLY’S BASS RIVER” – Darren Brown, curator of Beverly Historic Society, popular tide mill savant John Gaff and archaeologist Suzanne Chereau, who has worked on the site, will triple team this topic with a lecture, a low-tide field trip and a visit to the historical society’s exhibit about this nearby tide mill.

“FINDING SOMERVILLE’S MISSING TIDE MILL” – Richard Duffy, expert on the mills of the Boston area’s Mystic River, will share his research on a local mill that’s hard to pinpoint geographically and historically.

“Á MAINE TIDE MILL THAT SPAWNED A CANAL” TMI president Bud Warren describes a tidal saw mill that morphed into a canal, in an attempt to connect two river systems and draw on the unlimited timber resources of interior Maine.

GOT A FAVORITE TIDE MILL STORY? SHARE IT AT TMI’S 2015 CONFERENCE!! A CHANCE FOR EVERYONE!

It worked last year. Let’s repeat it, and give everyone a chance to shine! The idea is simple - you like tide mills; tell others in the fellowship at November’s conference about what interests you.

Last year several newcomers to the tide mill scene shared their experiences finding historic tide mill sites in their areas. At an informal Friday afternoon session this year, participants will be invited to share information, stories and photos of interesting tide mills that they’ve studied, visited or found. Everyone’s invited to join in!

The key word is “informal.” Everything goes –from Power Point presentation to handing around old photos or simply retelling an old story you heard from your grandfather. The idea is to make it time of sharing among friends!

DON’T BE SHY! PLEASE help in planning this session by letting us all know what you can offer. Send a MILLSTONES quick email to info@tidemillinstitute.org
**NEWS ITEMS –**

**DAMAGE TO TIDE MILL MILLSTONES CONTINUES**
We heard recently from Bob Singleton of the Greater Astoria Historical Society of Queens NY that both of the millstones from the borough’s 1640’s Gerritson tide mill continue to suffer damage. A piece of one has been cracked off twice, and been refastened with a cement that seems not to be working. The other has been defaced with graffiti. Although the stones are most likely not original, but from later years at the mill, Bob and others at the Historical Society have been trying for several years to rescue them and place them in its museum, but municipal officials who control things have been deaf to their entreaties and leaving them in a public park in less than optimal curatorial conditions. TMI encourages museum preservation of these stones.

![Graffiti and broken millstone segments](image1.jpg)

**KENNEBUNKPORT GRIST MILL SAGA NEARS CONCLUSION**
The long struggle to create and operate a reconstruction of Kennebunkport Maine’s 1749 tidal grist mill is now in the hands of the town’s Planning Board. The final public hearing was held August 5th, and a decision is anticipated by early September. Neighbors in the area mounted a concerted effort to quash what would be America’s only working tidal grist mill, raising questions about what zoning codes permitted and citing what they see as problems with traffic, noise and dangers of fire and explosion in their quiet residential area. TIDE MILL INSTITUTE offered support by testifying at the hearing, having gathered comments from millers and tide mill researchers across the US and Europe. We will inform you of the decision as soon as it is announced.

**A TIDAL POWER PROJECT FOR THE NEXT 120 YEARS?**
Some of us chugging away to understand America’s 16th-19th century tide mills were rather blown away in June by news that a UK company had been granted initial consent by the Department of Energy & Climate Change to begin planning activity to build a tidal electricity producing lagoon out in the bay and not isolating an estuary. Cost is estimated at a billion pounds sterling. Planners say this project with a barrage of 16 huge turbines will be the world’s first man-made, energy-generating lagoon, with a 320MW installed capacity and 14 hours of reliable generation every day. If actually created, it will produce clean, renewable and predictable power for over 155,000 homes (equivalent to 90% of Swansea Bay's annual domestic electricity use) for 120 years. Other exciting British Isles barrage projects are being proposed for other locations.
There’s an exhibit going on for another month and a half in Boston that every tide mill aficionado should try to see! Called “Tide Power in Colonial Boston,” it’s mounted in the West End Museum and tells the story of how Boston used the tides for 150 years. Because there’s so little time left to view this important exhibit (Unfortunately it closes on September 19th), and because so many who read this newsletter aren’t close enough to Boston to see it, we’re printing what the museum has on line. For those who can’t make it to the exhibit, its curator, Duane Lucia, will be a speaker at this fall’s conference, November 6 & 7. Don’t miss this great opportunity to hear about Boston’s tide mills!

“TIDE POWER IN COLONIAL BOSTON”

To fuel mills for producing flour, fabric, lumber and even chocolate, innovators in colonial Boston turned to the power of the tides. A new exhibit in the Members’ Gallery of The West End Museum—Tide Power in Colonial Boston—tells the story of the development and use of tide mills in the city.

“For 150 years prior to the industrial revolution, the tides sustained many industries in Boston,” said Duane Lucia, West End Museum Curator. “The story of the creation of dams and mill ponds—both the successes and failures—as well as their ultimate demise is fascinating.”

Tide Power in Colonial Boston explores the mechanisms of the mills and trades they supported. Historical maps illustrate the role of Boston’s topography in the construction of the mills and the demand for land-making which contributed to their downfall.

The rise and fall of tides have been harnessed for energy since Roman times. The earliest known tide mills date back to sixth-century Ireland. As the tides come in, sea water enters into a reservoir called a mill pond. When the tides recede, the stored water is released to turn a water wheel which powers the mill.

Around 1630, a settler named Crabtree attempted to extend an island in Boston’s North Cove—approximately where Causeway Street is today—to build a dam and form a tidal mill pond. The task proved to be too much for one person, so he soon abandoned the project. Thirteen years later, Henry Symons and five associates were granted the rights to the Cove on the condition that they construct a mill pond and erect one or more mills. They succeeded and, for the next 150 years, no fewer than five tide mills operated there.

But, as the population grew, so did the demand for land. This coincided with the dawn of a new industrial era, which spurred much larger factories that could not be sustained by tide power. The exhibit concludes with the great failure of Uriah Cotting’s plan to dam the Back Bay to build multiple tide mills.

(West End Museum: http://thewestendmuseum.org/exhibitions/tide-power-in-colonial-boston/)
Chris Sauer could be called America’s Pied Piper of using water power in new ways. A July 29 press release from Ocean Renewable Power Company (ORPC) reveals that his exciting Maine company has successfully straddled two different worlds of power generation on both sides of the North American continent.

According to an article in the recent issue of YANKEE magazine, he initially cast his eyes on making use of the Gulf Stream, but changed direction and focused on tidal currents closer to shore. Having gotten a good handle on the Maine tides, he’s now working successfully to trap river currents, and his website suggests he hasn’t forgotten about ocean currents. An adaptation of its tidal underwater turbine technology that was developed, installed and tested in Cobscook Bay Maine has been successfully deployed in Alaska’s Kvichak River and is now supplying power there to the remote northern village of Igiugig.

ORPC has become a leader in developing technology for harvesting energy from the current. Its Alaskan and Maine devices appear superficially similar to one another, each looking rather like souped-up versions of your grandfather’s old iron push type lawn-mower. But they’re definitely more modern than that, an adaptation of the famous fish-friendly helical turbine developed at Northeastern University by Alexander Gorlov. The one sitting in the Alaskan river, is called “RivGen®,” and is currently supplying about a third of that community’s electricity needs. It too appears to be fish friendly, for recently it sat smack in the middle of a run of 1.35 million salmon, and fisheries monitoring did not indicate any direct evidence of mortality or injury during the monitoring period. In addition to being fish-friendly, Sauer’s “flow-through” turbine feature operates right in the current, skipping the need for a dam and avoids the sedimentation problem that attends all dams.

“TidGen®” the original tidal turbine, was sited in Cobscook Bay as a test in 2010 and operated successfully for more than a year. It was the first revenue-generating, grid-connected tidal energy project in North America. ORPC has used information from that installation to improve the design, and plans a second installation soon again in Cobscook Bay and in Western Passage down in Washington County Maine.
Thinking about tide mills . .

As a result of a lunch I had lunch earlier this week on the porch of the recently renovated WINNEGANCE GENERAL STORE, I’ve had some long thoughts about tide mills and what we’re doing at TIDE MILL INSTITUTE. That’s me, pausing before climbing the steps to the store’s new porch, where if you look closely you can see the heads of a few people sitting at tables where a few minutes later I was joined by fellow tide mill enthusiast John Goff. After a few minutes of pleasantries, we both stood there and looked out across the marsh at Winnegance Creek, then at each other and grinned. After all, it was a beautiful day, and we were in Maine. But more than that, we were looking out over a truly historic vista. And it was some pretty!

Once upon a time the two little villages either side of the Creek were one thriving community, proudly sporting ten working tidal sawmills with nineteen different saws making one helluva lotta lumber, plenty of noise and more sawdust than you’d know what to do with today. These two little villages (each separately part of Bath and Phippsburg) had a couple of stores, a church, two schools, and even a community band. The Bath side boasted that it had the end of the trolley line on which you could ride up to Bath and connect to the rest of the world by land. The people in both towns were proud of their mills, and prouder of the millions of board feet of lumber they produced annually. Little did they care that the folks in upriver Bath who were building great wooden ships with Winneagance-made lumber looked down on them, and called their tidal-dam connected villages “Slabtown.” They were proud of being “Slabtowners” and passed that pride down the line to their children. Who else grew up hearing the “THUMP” of the water gates slamming shut automatically when the tide began to ebb, and hearing your Dad say, “Well, I have to go to work in an hour.” Whose Mothers but those in Winnegance had to time preparation of dinner to match the tides; because of them Father came home an hour later every day. Growing up in the area, I remember the quiet pride of some of the old-timers who shared reminiscences of what it was like in the old days.

And what it was like is gone. What’s left at Winnegance as elsewhere along Maine’s and other coasts are only vestiges of the old tide mills, cribwork and piles of rocks of the dams, foundations of the mill buildings, now and then a rusted gear or shaft – just archaeological hints in the mud of the technology, only a whisper of a vibrant way of life. It’s what I got a sense of as I stood there on the porch of the old Winnegance General Store on Monday. (more)
And once again, as it often does when I stand at an old tide mill, the mission of TIDE MILL INSTITUTE came through sharp and clear. Yes, we’re interested in the technology of that former way of life. Yes, we’re excited about snuffling out new historic tide mill sites. Yes, we’re excited to think about ways to bring back that gentler way of producing useful power. But most of all, we’re excited to be fostering an understanding of and an appreciation of the heritage of the people and the way of life of places like this along America’s East Coast. The things these people left behind have a fantastic story to tell, but when you get down to it, the real story here and in other coastal villages is about the people themselves and the sorts of communities their tide mills developed.

After a deep breath or two, John and I sat down for lunch. I had a fantastic Reuben sandwich and a sip of cool wine. I forget what John had. But we toasted Winnegance, past and present, and then we toasted TIDE MILL INSTITUTE. We toasted Jennifer Green for doing such a superb job on the store’s restoration.

Thank you, all, for being part of the process! Hope to see you can make our conference and share your own tide mill stories! Bud Warren

The following article is reprinted with permission from SPOOM’s “OLD MILL NEWS”- Winter 2015
Maine’s Tide Mill Culture

By Bud Warren

The ocean is an environmental constant; the lifestyle of fishermen reflects it, reacting to and adjusting to its many moods—wind, waves, storm, and season.

Maine’s tide is a constant, too. It influenced the lives of those who built and operated tide mills, creating a unique economic, commercial, and social culture, a fraternity of millers stretching from Kittery to Lubec. A lifestyle. A pattern of labor. Technical know-how. Commercial relationships. Industrial sounds—The deep thud of water gates closing with the tide, the raspy snarl of saw cutting into wood, the gentler sound of millstones—a sound heard in Biblical times.

In 1631, just a year after Boston’s first mill was created, Thomas Fyrre, one of the investors in Sir Ferdinando Gorges’ plantation Lagonia, in south western Maine, sent a “model of a sawmill”, a sketch or a drawing so that settlers could get one going. Historian Richard M. Candee postulates that this comparatively early development of water-powered sawmills in New England reflects English lack of familiarity with or at least acceptance of powered saw milling. Three years later, Sir Ferdinando himself sent the working parts of two sawmills to his plantation in southern Maine. One of the sawmill kits ended up at the fresh water Salmon Falls in Berwick; the other was sent to York, the first tide mill in Maine.

What appears to be cordwood sits on William Heal’s wharf in Westport Island, ME.

In Jeremiah 25:10, we read, “Moreover I will take from them the voice of mirth, and the voice of gladness, the voice of the bridegroom, and the voice of the bride, the sound of the millstones, and the light of the candle.”

These sounds are gone, as is the lifestyle and the pattern.

In early America, towns were eager to have a grist mill or a lumber mill—corn and wheat were ground for food, and lumber was made available for building houses and as a cash crop. Whether the water that powered it was fresh or salty, a mill often became a focal point for a community.

According to historian/archaeologist Emerson Baker, Thomas Gorges, Ferdinando’s nephew, sent over to supervise the colony, reported that it wasn’t really a success.

Baker points out that it didn’t do all the proprietors hoped it would:

“Thomas Gorges [son of Sir Ferdinando], the Deputy Governor of the Province of Maine from 1640-1643 frequently discussed the mills built on Old Mill Creek (in York). He complained that the saw mill was poorly constructed, and frequently broken down. Indeed, when

The remains of a tide mill dam in Westport Island, ME.
Today only rocks and post in the mud remain at Robin Heal’s Mill.

Thomas left Maine to return to England in 1643, he told Sir Ferdinando, “I have let out your estate here, the mills excepted, and as yet I can procure no man to meddle with them, all that have their hands in them hitherto hath had so bad success.” The mills were barely operational. The saw mill had cut only 600 feet of boards in the past eight months, and the grist mill was only able to grind a bushel or two of corn a tide. Trying to repair the mills was impossible. He told Sir Ferdinando “for me to undertake the re-payer of them would be to wash a blackamore.” 

A study of deeds indicates that it operated for a while after Thomas Gorges departed, and was still there in 1646; but it was gone by 1653.

In Castine, Maine, a Frenchman, Charles D’Aulney built a tide mill at Wadsworth Cove in the late 1630’s or early 1640’s. Another Frenchman, with a competing claim for the region, attacked Aulney with a large force, killing a number of men in the mill, burning it and driving D’Aulney temporarily from the area.

Young Robert Bell, a 15-year old Scotsman, from the golfing town of St. Andrews, where there had been a tide mill, showed up in Eastport, Maine about 1765, looking for a good location. When he told local Passamaquoddy about the topography he was hoping to find, they canoed him over to the western reaches of Cobscook Bay and showed him a long cove with a 23-foot range of tide. Bell acquired a deed for the property, built a mill and flourished, loading empty vessels gathering eagerly for the bounty of fresh-cut lumber. His descendants continued sawing and grinding grain. Today an extended family of Bells, operating as Tide Mill Farm, still proudly farms the land, makes goat cheese, raise cattle, pigs and lumber. They sell what they call “Moo Milk” and dreams of rebuilding their ancestor’s mill.

The point is, that their mills, like all endeavors, were someone’s brainchild, dream and way of life. Those of us interested in industrial technicalities often forget how much human heart, hope, dreams and pride went into the process.

An example of that pride is seen in how some of the mills were named by their owners: “Endeavor” in Blue Hill; or “Perseverance,” a hint of hard times, or “Improvement” or “Industry,” — or my favorite “Delight.”

Though towns often were eager to have the mill as a working business, often offering benefits, like tax incentives, creating a mill was a major undertaking. The owner would have to prove he was financially capable of handling the expense, and be required to complete the project by a certain deadline. The investor would need to acquire permission from the municipality for the privilege. Upstream neighbors whose land could be flooded would be involved, perhaps being granted damages. Because the dam might impede navigation, the new owner might be required to construct gates of certain sizes and open them regularly or on call to allow passage of vessels; perhaps the town would require that the dam be wide enough to allow traffic from one bank to another (the town saving the cost of a bridge).

For the most part, mills appear to have served the local market, the immediate need for flour and building

The pond at the old Crosby tide mill Arrowsic has plenty of timbers waiting to be sawn. The dam was built in 1650 and was used until the first part of the 20th century.
(Photograph: Arrowsic Historical Society)
materials being immediate needs. Local timber would be harvested, perhaps floated to the mill to be turned into lumber. One advantage tide mills did have over inland mills was the proximity of coastal waters; transport of finished product by vessel meant that large cargoes could be easily carried to long distant markets. And occasionally, regional building booms were easily satisfied by nearby tide mills.

Arrowsic’s, Spinney Mill, for example, was reputed to be the source for much of the lumber that built cottages on Squirrel Island in Boothbay; scows were stacked with new lumber that went down the Kennebec and around the corner. The owner of the Crosby Mill in Arrowsic went a step further, pre-packaging cottages and shipping them in kit form to be assembled on site: a would-be coastal cottager would just indicate the style and size cottage he wanted, Crosby would load the appropriate lumber on a scow along with appropriate windows and doors with their hardware, even soapstone or sheet metal sinks!

The logs for the mills would be supplied by local cutters or floated to the mill. Tide mills on the lower Kennebec and Sasanoa benefitted from the bounty of the Inland forests, whose logs would be floated down to Farmingdale and gathered at piers and booms built to hold logs for sorting by lumber merchants. Some would be loaded onto the nearby railroad while others would be sorted into rafts. Sometimes these would be towed to waiting mills by steam tugs or would proceed on an ebbing tide, guided by skilled raft-men, who would anchor or tide to the shore when the current changed and proceed six hours later when the tide changed. The mill in Cutler was fed by forests a mile or so further down east, whose logs would be rolled into Schooner Brook to the north, then floated down to Money cove, rafted, hauled around Eastern Knubble and warped into the mouth of Little River and finally run through the raised gates of the dam into the pond. A local history notes, “The whole distance from the mouth of Schooner Brook to the dam was about two miles, and rafting logs around the Knubble must have had to have been done with a close eye to wind and swells of the region.”

John Peterson, in Brunswick, was running out of logs for his Thomas Point mill at New Meadows. He knew he was close to the Kennebec, but land lay in the way. In 1791 he acquired the privilege of digging a canal from the New Meadows to Merrymeeting Bay, where he could tap the flow of logs coming down from the gathering place at Farmingdale. He began digging, but ran into ledge just west of the Bath Golf Course, got permission to change course and headed northeast to the North Bath cove cut by the Varney Mill Road and had his canal. Unfortunately, the tidal difference between the two ends of the canal was about three hours, so only a few logs ever made it through. Fortunately, Peterson later bought into the mill at Whiskeag, a bit lower on the Kennebec and had all the logs he could handle.

Suffice it to say, that tide milling involved many people. Skilled millwrights, carpenters and blacksmiths created these mills. They were men who could choose good mill sites and design the dams and gates. Others with a modicum of carpentry knew about and could

TEN TIDAL SAW MILLS! The “Great Dam” at Winnebagance Creek between Bath and Phippsburg sported eight of them. There were two more on the dam in the left background, bringing the total to nineteen saws! (Photo: Maine Maritime Museum)
construct the post and beam mill buildings. The millwrights would design and install the working machinery, and a blacksmith would hammer out necessary metal parts, such as the pitman arm that powered the up-and-down saw.

In researching these mills, I found a pattern of sorts – in the design of three Mid-coast mills. Perhaps the same millwright constructed each of these. The labor pattern was the same as it had been in medieval times: master, journeyman, and apprentice. In 1716, the Spinney Mill, in Arrowsic was constructed by millwright, Peter Nowell, who was assisted by a journeyman and one young helper, perhaps an apprentice. It was all word of mouth, and memory. Until Oliver Evans, wrote and made available his book, The Young Mill-Wright and Miller’s Guide, there were no written directions or sheets of plans for how to build a mill of any kind. The skill lay in the millwright’s head, as it had from medieval times.

The milling business was often a generational family affair, son following father in the business. At Winnegance, just south of Bath, Samuel Lithgow built a dam in the late 1700’s and in 1806 leased it to Richard Morse. The mill site has never left the family. Richard’s ever-so-great grandson John Morse continues to mill lumber at the same site today, a sixth generation sawyer. His son is in the world of computer technology. This mill will soon fall silent.

In East Boothbay today, Tim Hodgdon builds upscale sailing yachts where his great-grandfather milled lumber at the old family tide mill site started in the 1760s; Tim’s father worked there in the 1940’s. Two Perkins brothers from Boothbay moved down east to Steuben where they built a tide mill; a few years later they moved to Gouldsboro and built another.

Nathaniel Stevens from North Andover, Massachusetts, bought a huge tract of coastal timberland way down east in Cutler, built an impressive lumber mill there and hired a relative Moses Stevens to run it so he could use the income to solidify his textile business that became J.S. Stevens.

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TWO MOUTHS IN WESTPORT, Richard and Robbins Heal, had tide mills on the islands west shore about two miles apart. They shared a schooner, and their account books show that they often did business back and forth between the two mills.

Ownership and part ownership in mills changed often – among relatives as well as among other investors. Portions like halves, thirds, quarters, fifths and sixths traded back and forth. Perhaps selling a part ownership to gain capital.

Assume that for Maine’s known 210 tide mill sites there were five investors/owners and a minimum of ten employees over the years, then more than three thousand individuals were involved in milling. Consider a minimum of a hundred customers/consumers over the lifetime of a mill, and you’d have over 21,000 customers – meaning that at least 25,000 people were involved to some degree with a tide mill somewhere along the coast.

We have run across only half a dozen tide mill account books, far too little data to develop a picture of the financial workings of these enterprises. The most revealing are those from Westport Island’s Heal Mills. The account books are revealing. They show what the millers paid for logs and their rafting, and prices paid for what had been sawed. Of particular interest are the daily labor costs for the hundred twenty three weeks from September 1876 to December 21 1879, a running daily record and names of men, the hours they worked, what they were paid (from $1.25 to $2.00 a day) and the specific tasks to which they were assigned.

The account books show that the Heal brothers had an operation that may have been duplicated elsewhere along the coast. Together they owned in a 65’ schooner that voyaged regularly to Boston in the summer – sometimes as many as 14 voyages a season, carrying large lumber cargoes, with varying amounts of “cord wood” for the Boston market – probably low grade cuttings, or the first slabs cut from the logs.

What was it like running, or working in a tide mill? One thing comes down to us: tide mills operated by the shifting tide, rather than by the clock.

The loud thump of the closing water-gate was one of the unusual characteristics of a tide mill.

Because the time of high tide changes each day by about an hour, workers at these mills kept an eye on the height of the water rather than focusing on the clock. Their flexible schedule, though predictable, was annoying, for high tide occurs at different times of the day, a tidal day being 24 hours and 50 minutes in length, creating some unusual hours of work. Leslie Syson indicates:

Jim Perkins, the last miller in 1932. Proud of his milling heritage, he once said “I want to go on record that this tide mill doesn’t operate on new fangled daylight savings time...the mill grinds not by the watch, but by the tide.”

(Photograph and old postcard of the Perkins mill – Kennebunkport Conservation Trust)

The Morses of Phippsburg have sawed lumber at this site since 1806. A 7th generation of the family continues the tradition today with an electricity-driven saw at the far end of the dam.
“Since the time of high tide moves each day, the times of working are somewhat complicated for the miller. No two days together will be the same for him and depending on the type of wheel and the amount of work he has on hand, he may have to start or finish his work at the oddest hour.”

Richard Duffy writes that tide millers, who like other rotating shift workers at harvest and other peak times, commonly had to endure all-night duties, and had to catch short nap periods during the twice-daily incoming tides rather than enjoying a full-night’s sleep. According to the webmaster of a Rye New York boatyard, once a tide mill, “the miller slept in a wing of the mill so as to lose no time when the tide came in, and was even wakened at night by an alarm rigged to the water level as it dropped outside the dam.” A reminiscing millwright in the 1930’s commented: “They did a big lot of work, but it was very hard on them, especially sawing on night tides.”

Though historians of tide mills often mention this disadvantage, first-hand reactions are scarce. Miller James Perkins, whose 1794 grist mill still ran in Kennebunkport, in 1938 said:

“I want to go on record that this tide mill doesn’t operate on newfangled daylight saving time. We stick to the old-fashioned standard, never change our clocks, and the mill grinds not by the watch but by the tide. If the basin is full today at 10 o’clock morning we will grind; tomorrow it will be an hour later before we start up.”

The son of another miller simply reported, “My father was a miller and worked in the night or day time according to the ebb and flow of the tide.”

These rather benign reactions are offset by the feelings of Ed Hayford, a Maine native who complained to relatives many times of the hard life he led at the tide mill where he worked: “For the tide going out later each day, their time for opening work often commenced at most untimely hours, and they worked in all seasons. They often commenced work at 11 o’clock at night or two in the morning with equal promptness, as every moment that their power lasted must be improved.”

I have seen other reports of men working until 11 o’clock at night or starting at two in the morning to take advantage of a favorable tide. But the mills didn’t always work the long shifts into the evening. Seventh-generation miller at a tidal site, working now with electricity, John Morse’s commented as follows about working late: “They wouldn’t work just because the tide was up. They would

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do so, though, if they had to get some stuff out for an order by a certain deadline.” His father, sixth-generation sawyer John Morse III once mentioned to me how his mother fussed at having to adjust the dinner hour to meet his father’s varying schedule at the family’s tide mill.

Tide mill people here on this Mid-coast and elsewhere along the coast were part of their communities. They were proud of what they did. They worked hard, and made a buck or two. After all, their mills ran to make a profit. But technology changed and the mills disappeared. These people, however, left a legacy for us to enjoy that’s worth respecting.

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1 Baker, “History of the Early Mills on Old Mill Creek, York, Maine.”
2 Duffy, Tinkham Brothers’ Tide Mill, p.3.
4 Undated clipping from the Bath Daily Times (1930’s?), Hennessey MS-53, MMM.
6 Paladin, Memoirs of a Many-Sided Man.
7 Hayford, p. 87.
8 Phone Conversation with John Morse, February 2, 2012.