

Romanticising the Past: A case study of a tide mill

“Twice a day the mill takes a gulp of the incoming tide”, is a popular lyrical description of the ancient technology of the Woodbridge Tide Mill in Suffolk as it harnesses the physics of the natural world. The human exploitation of the rhythm of the tide cycle demonstrates to an energy-challenged modern world a sustainable method to power a food-processing machine. It encapsulates the fundamental dependence of humankind upon natural physics and demonstrates an example of how to decouple ourselves from contemporary dependence on fossil fuels and globalised food systems. It helps reduce our ecological footprint.

The miller utilises the tide timetable as it ebbs and flows with the gravitational pull from the moon. The miller also has an intimate knowledge of the tidal river and the workings of mill machinery powered by centrifugal and gravitational forces. Twice a day the millpond fills with high tide water through a non-return pipe. This water is then saved until low tide. At low tide, sluice gates holding back the millpond water open. The force of the escaping water is sufficient to turn a five-metre diameter oak wheel at up to five revolutions per minute. This force then powers the millstones via a system of cogs to produce a regulated five tonnes per annum of locally grown high protein flour.

The thirty thousand year story of milling grain – that includes human and animal power, water, wind and electricity – is an impressive catalogue of resourcefulness, invention and the search for efficient and convenient energy to transform a hard indigestible grain into food. Milling cultivated grain began with female energy grinding the grain by hand using stone querns, a practice that continues in rural African, Asian and South American communities today, and perhaps represents the most authentic community mill.

The contrast of small scale, localised and predominately female milling communities with the 800-year long history of the Woodbridge Tide Mill made me consider the social and economic implications of such a case study for a more sustainable food future. As a machine once sited within a zero-carbon farming and transportation system – one that used horses and sailing barges to farm and deliver grain and flour – it has much to communicate about sustainable food infrastructure. Yet as a model for a more holistic view of sustainability it is perhaps questionable. While community resilience as vital, the aspects of social inclusion, gender equality

and equitable urban food provision are also important. The mill machinery is a powerful example of humankind working with nature, but the mill lists the church, monarchy and businessmen as past owners; these ran commercial models of production.

The Woodbridge Tide Mill is the only working tide mill remaining of the 200 British tide mills that were built in the stone, wood or clay brick of their locality. In 2011 a donation of nearly one million pounds sterling was awarded from the UK Heritage Lottery Fund to repair and reinvigorate the mill as a ‘Living Museum’. The practice of milling wheat grain using power derived from the tide was revived at the mill in 2012 to top up visitors’ admission entrance income. These provided the means to finance the repairs and maintenance of the volunteer-run mill. Many of the 2000 annual mill visitors declare the mill ‘so clever and yet so simple’.

Undoubtedly, it is a very clever machine that works in harmony with nature, yet as a case study or model of sustainable food processing it also reveals more about people who construct and manage food chains. If we are only “domesticating of the past... for present causes” without questioning the historical British milling model we forsake the principles of equality and social involvement which are just as necessary for sustainable and equitable urban food. The charming appeal of the old mill gently drinking to provide the energy to grind grain is an example of how the construction of ‘popular consciousness’ that “fit[s] in the framework of contemporary interests” can mythologise heritage food stories.

The mill offers many valuable energy-efficient and sustainable solutions to milling, yet with a more holistic analysis, it could also reveal some valuable insight into patterns of economic and social markers that regard food as trade and not development. Wholesome and natural versions of British milling must be seen in relation to their feudal history, to capitalism and gender inequality. Otherwise we overlook the potential of learning about how control and power challenge food security. Awareness-raising of such aspects could perhaps be key to greater understanding of the behavioural complexities of food production.

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References

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