

THE FORGOTTEN ACHIEVEMENTS OF MILLING: PART TWO

**Editor's Note:**

Dear Readers,

Thank you for your continued support, and welcome to Issue #3 of our newest newsletter, Renewable Roots.

In our last issue, we highlighted the often-overlooked accomplishments in milling—a field surprisingly relevant to contemporary society. The Mills Archive recognizes the link between traditional milling and modernity, and aims to share this perspective widely.

As a repository with a focus on wind and water power, our primary emphasis has historically been on mills and the milling process. Yet, recognizing the decline of these traditional structures and their significant role in the evolution of renewable energy sources like wind turbines, we've expanded our archival range.

One of our main goals is to connect traditional milling with modern renewable technologies. Beyond apparent commonalities, such as the use of wind, water, and sunlight, there exist several developmental parallels between milling technologies and the evolution of sustainable electricity. These patterns are briefly discussed below (and concluded next issue), though a more comprehensive study is necessary for an in-depth exploration of these connections.

Make sure to catch next issue for the conclusion to this article in *The Forgotten Achievements of Milling: Part Three*.



NEW.MILLSARCHIVE.ORG/READINGEMPOWERED



**Upcoming:
Renewable Energy: A Digital
Exhibition by Polly Bodgener**

'Renewable Energy' is a digital exhibition that explores the social and technological histories of wind and waterpower. It charts a trajectory from the picturesque waterwheels and windmills of yesteryear to the monolithic turbines that are shaping the UK's energy mix today. Machinery, however, is not the whole story. With case studies exploring topics from homemade generators and the repowering of traditional mills to ardent community protests against dams and windfarms, this exhibition aims to provide a holistic view of climate change and the green energy transition. At the centre of this exploration are what the Mills Archive's catalogues reveal: real human stories of anxiety and achievement that are so often lost in the historical retelling of technological development. 'Renewable Energy' will be featured on our website in the coming months.

A Poem About
Climate Change

Evening

Dorianne Laux, 2019

Moonlight pours down
without mercy, no matter
how many have perished
beneath the trees.

The river rolls on.

There will always be
silence, no matter
how long someone
has wept against
the side of a house,
bare forearms pressed
to the shingles.

Everything ends.
Even pain, even sorrow.

The swans drift on.

Reeds bear the weight
of their feathery heads.
Pebbles grow smaller,
smoother beneath night's
rough currents. We walk

long distances, carting
our bags, our packages.
Burdens or gifts.

We know the land
is disappearing beneath
the sea, islands swallowed
like prehistoric fish.

We know we are doomed,
done for, damned, and still
the light reaches us, falls
on our shoulders even now,

even here where the moon is
hidden from us, even though
the stars are so far away.



The Forgotten Achievements of Milling: Part Two

Historical milling technologies demonstrated remarkable **efficiency in using available resources**. A significant example is the development of improved mill gearing in the post-medieval period, which enabled a single waterwheel to drive multiple millstones. This innovation increased the productivity of mills without requiring additional power sources. See Martin and Sue Watts From Quern to Computer: The History of Flour Milling, Chapter 8 (on our website) for more information on post-medieval technological development.

Similarly, in modern renewable energy, efficiency is crucial. For instance, in solar power, advancements in photovoltaic cell technology aim to increase the energy conversion efficiency, allowing more electricity to be generated from the same amount of sunlight. Wind turbines are designed to capture wind energy more effectively with longer and lighter blades. In hydroelectric power, advancements in turbine design aim to extract more energy from water flow. All these efforts mirror the historical pursuit of maximizing output from limited resources.

The **adaptability and innovative use of mills** is another key historical insight. In our online feature Technical Descriptions of English Windmills, we highlight the introduction of the timber-framed smock mill, probably from the Netherlands, before the end of the 16th century. Originally designed for land drainage, it was quickly adapted by English millwrights for corn milling, especially in Kent and the southeast of England.

continued overleaf...

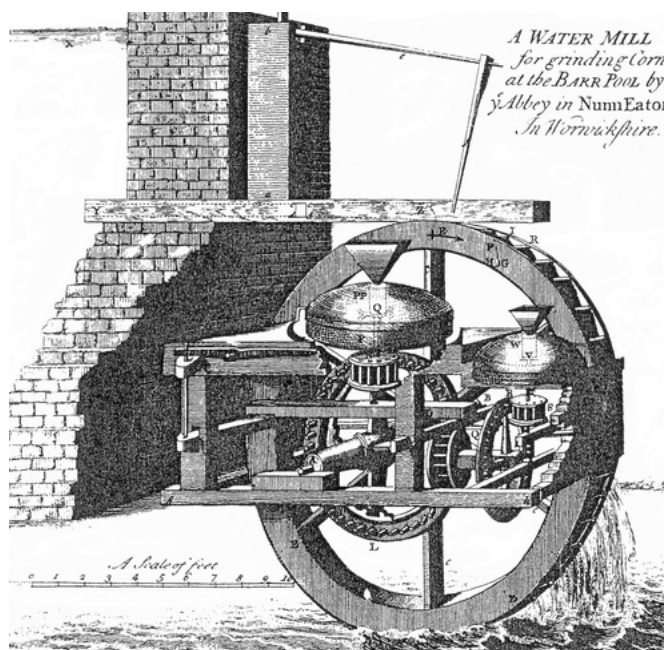
Local Climate Event Spotlight:

Get to Grips with Climate Science: Climate Fresk - Community Edition, Feb 8th, 3:30 - 6:30 GMT, **online**. Tickets are £5.

Climate Change is Already Here: The Problem, Its Impacts & How We Solve It, Feb 21st, 21:00 - 22:00 GMT, **online**. Tickets are \$5USD.

Wokingham Positive Difference - A Climate Game Changer (Breakfast Networking Event), Feb 23rd, 08:00 - 09:45 GMT @ Wokingham Town Hall.

Search for the above events on eventbrite.co.uk to sign up. Booking is essential.



A Treble Mill: used for grinding corn, very few of these survive today. As outlined on the previous page, treble mill gearing enabled the use of a single waterwheel to operate two pairs of millstones by incorporating an extra set of gears connected to the pitwheel. This is a great example of both efficiency and adaptability in mill technology.

Reading EmPOWERed Volunteer Callout:

Are you concerned about climate change?

We're looking for volunteers from all backgrounds, particularly those from marginalised communities, to help us understand more about our records on renewable energy - we've got 3 million of them, to be exact.

Tasks can include:

- Cataloguing
- Interpreting our Records
- Creating educational resources
- Writing articles
- Creating artwork
- Working with children
- Having a say on the interpretation of history
- Curating digital exhibitions
- Advising us on topics such as decolonisation, cultural development and climate change
- Implementing SEO on our website

To find out more, email rachel.riddell@millsarchive.org

This ability to adapt technology for new purposes is highly relevant in today's renewable energy sector. For example, the concept of floating solar farms—where solar panels are installed on bodies of water—shows innovation in using available space and resources, much like adapting windmills for different uses. Similarly, the development of integrated renewable systems, such as combining wind and solar power or using hydropower and solar panels in tandem, showcases a modern adaptation of the principle of using available technology in innovative ways to maximize efficiency and sustainability.

In summary, the evolution from traditional mills to modern renewable energy underscores a continuous human endeavour for efficiency and adaptability. Our work as an archive highlights this progression, illustrating how historical milling innovations inform and inspire today's renewable technologies. This connection between past and present not only enriches our understanding of energy development but also guides future sustainable innovations. The legacy of milling, therefore, remains pivotal in our ongoing quest for harnessing natural resources more effectively. Next issue will feature more examples of this phenomenon.

For more information, visit:

- <https://new.millsarchive.org/2016/09/06/from-quern-to-computer-the-history-of-flour-milling/8/>
- <https://new.millsarchive.org/2019/09/13/technical-descriptions-of-english-windmills/>

New to Our Website: Curated Reading Lists

Last month, as part of our Reading EmPOWERed initiative, we added three new curated reading lists to our website. These cover Women in Milling, Electricity Generation in the 1970s and 1980s, and Local History. Visit the *Education* section of our website to find out more.

Upcoming in this Series...

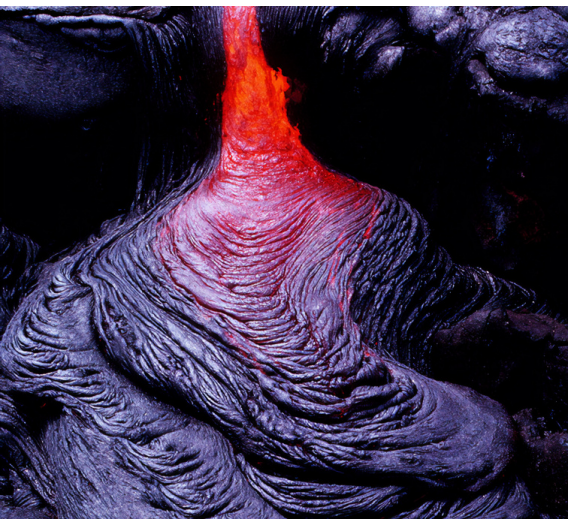
The main article, *The Forgotten Achievements of Milling: Part Two*, is the third in a ten part series launching our newest monthly newsletter, Renewable Roots.

In upcoming articles in this series, we will address topics such as:

- A History of Milling in light of Renewable Energy
- The Forgotten Achievements of Milling
- What is Renewable Energy?
- The Pros and Cons of Renewable Energy in all its variations
- Reading's Local History of Sustainability
- How can an Understanding of Milling serve Renewable Energy today?
- Why is addressing the Climate Crisis so urgent?

...as well as highlighting more renewable energy case studies and a new section on monthly sustainable heroes.

If you have any questions or comments, please email outreach@millsarchive.org.



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