



Combe Martin Lime-Burning and Quarrying

A concise historical overview

By [Combe Martin Village History Project](#) (CMVHP) © 2023-2026

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Introduction

[Lime-burning and quarrying](#) were once central to Combe Martin's rural economy. The parish contained one of the highest concentrations of lime kilns in North Devon, with 18 or 19 known structures positioned close to the limestone quarries that supplied them. Although many of Combe Martin's lime kilns have vanished or are in disrepair, one or two survive as listed heritage assets. They offer a rare insight into an industry that shaped both the village landscape and the livelihoods of the community.

Historical Background

Lime-burning has been practiced for millennia, but most surviving British kilns date from the eighteenth and nineteenth centuries. Earlier kilns were typically small, temporary clamp structures built for a single agricultural or building season. Their impermanent nature, combined with the destructive effects of repeated high-temperature firing, means few early examples remain visible today.

In Combe Martin, lime-burning developed alongside long-established quarrying activity. The parish's limestone belt, running parallel to the A399 on the south side of the valley, provided an accessible and abundant raw material that supported centuries of local production.

Kiln Construction and Operation

Even permanent stone kilns were vulnerable to the intense thermal stress of each burn. Temperatures exceeding 900°C caused cracking, spalling, and structural failure, necessitating frequent repairs. Many kilns were reinforced with substantial buttressing to absorb the strain and prolong their working life.

Kilns were typically sited close to quarries to reduce transport effort and to take advantage of nearby fuel sources. Wood was the most common fuel in Combe Martin, though culm (anthracite waste) was used elsewhere in Devon.

Lime-kiln working was a dangerous operation. Workers faced extreme temperatures exceeding 900°C: the hazards of handling caustic quicklime, and the ever-present risk of structural failure as kilns cracked or spalled under thermal stress. Even experienced limeburners were vulnerable to burns, respiratory irritation, and sudden kiln collapse.

Products and Uses

The industry produced two principal materials:

- **Quicklime (calcium oxide)** – created by heating limestone
- **Slaked lime (calcium hydroxide)** – produced by adding water to quicklime

These materials were essential to local agriculture and construction. Farmers used lime to sweeten acidic soils and improve crop yields, while builders relied on lime putty and mortar for rendering, plastering, and stonework. The ready availability of lime contributed significantly to Combe Martin's agricultural productivity and vernacular architecture.

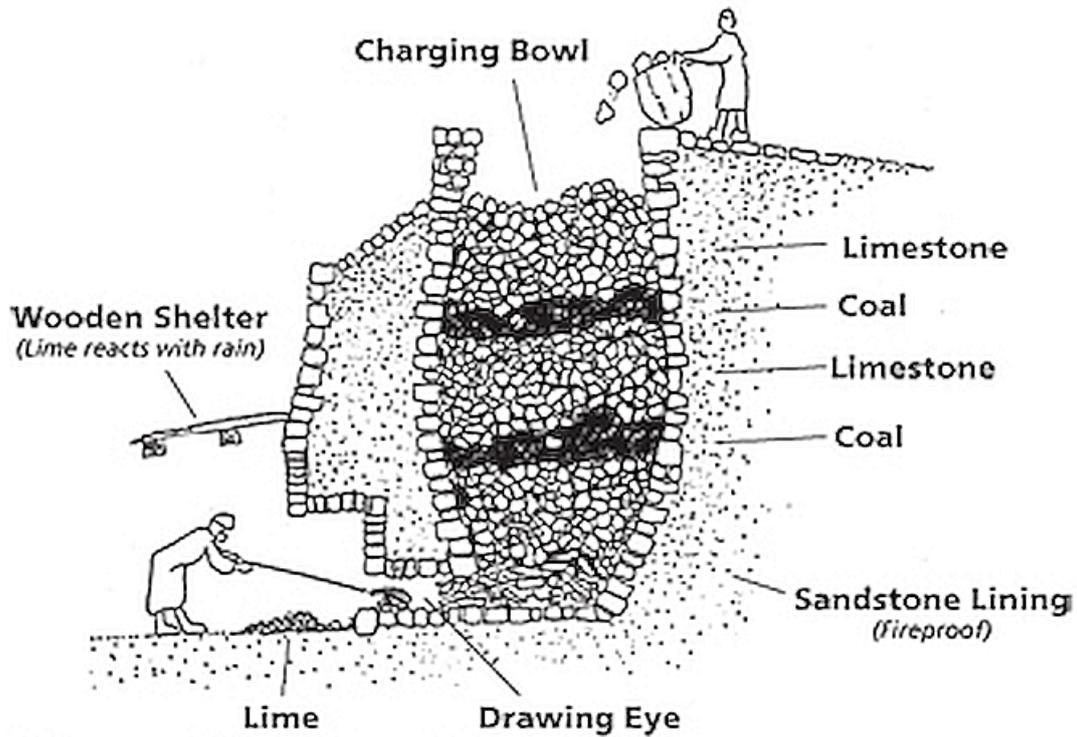
Quarries and Surviving Heritage

Nine limestone quarries are recorded along the south side of the valley, forming a continuous belt of extraction sites. Many of Combe Martin's lime kilns were built directly at these quarries, creating efficient, self-contained production sites.

Combe Martin's surviving kilns are now protected on the National Heritage List for England, including the well-preserved example at Kiln Field. While several lime kilns are lost or neglected, these structures represent an important component of the parish's industrial archaeology, and provide tangible evidence of a once-vital rural craft.

Conclusion

Lime-burning and quarrying were integral to Combe Martin's landscape, economy, and built environment. Though the industry has long since vanished, its physical remains – quarries, kilns, and lime-rich building materials – continue to shape the character of the parish. Understanding this heritage deepens our appreciation of the community's agricultural and industrial past.



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References

Author / Source	Title / Description	Year	Notes
Waterhouse, R.	<i>South Devon AONB: Limekilns and Lime Burning</i>	2002	Key contextual reference on kiln types and survival.
National Heritage List for England	Entries for surviving Combe Martin lime kilns	Various	Confirms listed status and architectural details.
Combe Martin Local History Group	Local quarrying and kiln distribution notes	Various	Provides site-specific historical data.
Ordnance Survey	Historical mapping of Combe Martin valley	Various	Used to confirm quarry belt alignment.

Glossary of Terms

Agricultural Lime

A soil treatment made from crushed or burnt limestone. Used to reduce soil acidity and improve crop yields.

Buttressing

Structural reinforcement added to the outside of a lime kiln to counteract thermal stress and prevent collapse during repeated high-temperature burns.

Calcium Hydroxide (Slaked Lime)

A soft, powdery material produced by adding water to quicklime. Used in mortar, plaster, whitewash, and agricultural soil treatment.

Calcium Oxide (Quicklime)

A highly reactive substance produced by heating limestone to around 900°C. Quicklime was the primary product of lime kilns and required careful handling due to its caustic nature.

Clamp Kiln

A temporary, often single-use lime kiln constructed from earth, stone, or turf. Common before the eighteenth century but rarely surviving today.

Kiln Charge

The mixture of limestone and fuel loaded into a kiln for a single burn cycle.

Lime-Burning

The process of heating limestone to produce quicklime. A hazardous occupation due to extreme temperatures, caustic materials, and structural instability.

Lime Putty

A smooth, workable paste made by slaking quicklime in excess water. Used historically for fine plasterwork and high-quality mortar.

Limestone

A sedimentary rock composed mainly of calcium carbonate. The raw material for lime-burning and abundant on the south side of Combe Martin's valley.

Mortar

A mixture of lime, sand, and water used to bond masonry. Lime mortar was the standard building material before the widespread adoption of cement.

National Heritage List for England (NHLE)

The official register of nationally protected historic buildings and sites. Several of Combe Martin's surviving lime kilns are listed on the NHLE.

Quarry Face

The exposed rock surface in a quarry where stone is actively extracted.

Slaking

The controlled addition of water to quicklime to produce slaked lime. This chemical reaction generates heat and must be managed carefully.

Thermal Stress

Damage caused by repeated heating and cooling cycles within a kiln. Over time, this leads to cracking, spalling, and structural failure.

Working Face

The active area of a quarry where limestone is being cut or blasted for use.

Supplementary Sources:

[Lime burning in Hele Bay, Ilfracombe, north Devon \(johnhmoore.co.uk\)](http://johnhmoore.co.uk)

[Lime-burning and Quarrying / Combe Martin Industrial History | Combe Martin Village History \[The Little Parish with a Big Story\]](#)

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About the Combe Martin Village History Project (CMVHP)

The Combe Martin Village History Project is a volunteer-led community initiative, dedicated to researching, preserving, and sharing the rich heritage of Combe Martin.

Through archival work, field surveys, digital interpretation, and public engagement, CMVHP documents the parish's industrial, agricultural, maritime, and social history.

All publications are produced for non-profit educational use, supporting wider understanding of Combe Martin's unique landscape and the stories that have shaped it.