



Beadnell Lime Kilns

Following a partial collapse and growing concerns over the safety and dangers of these iconic structures, repairs were desperately needed.

Three lime kilns, the earliest built in 1789, are located east of Beadnell Harbour. By 1822, the kilns had fallen out of use. Limestone was burnt to make lime and then sent to Scotland from the harbour. Today, they are used by local fishermen to store lobster pots, are classified as Grade II Listed Buildings, and reside under the care of The National Trust.

KEY PROJECT INFO

Client:



Skills:

High-Risk Assessment
Structural Propping
Masonry Repointing
Pinning and Galletting
Installation of a load-bearing structural lintel

Repairs to the iconic Beadnell lime kilns were planned after concerns were raised about the dangers of the structure, following collapse and damage to the most southerly kiln.

Previous repair works (of an unknown date) had been carried out to the kiln, which involved the installation of reinforced concrete beams and a concrete slab ceiling, to the front section of the tunnel (adjacent, right).

The concrete is reinforced with steel beams, some of which very close to the surface and had rusted causing the concrete to spall. Concerns over public safety resulted in the main beam and the concrete slab being propped up and the area fenced off (upper, right). However concerns persisted and grew, over the state of the rusting props with action needed to follow, to save the kilns from further collapse.



Two options were put forward for the repair, with a decision to be made after further investigative digging works on top of the kilns. If an inner support wall was found, a new concrete slab would be formed at high level, the inner walls of the kilns cleaned, be repointed and repaired. This option was preferred as it would reduce the loading on the external wall and remove any uncertainties relating to the existing construction.

After several days of investigative digging were complete, no internal supporting wall was found. Therefore, we had to turn to our second option. This option was dangerous as there was still a lot of load bearing soil and a concrete slab on top of the kilns; which had to remain in place.



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The old concrete lintel and rusting steel sections were removed and three new stainless-steel beams (painted to blend in) were put in place to fully support the kilns. This type of repair is classed as an 'Honest Repair' as it does not conceal or falsify the work.

Structural interventions aside, we repointed the worst areas of the kiln walls (mortar in some cases had completely washed out), pinned and galletted to stones and fitted new oak doors and panelling, to create a fisherman's store within one of the drawing arches. The finished work to the lime kilns can be seen opposite.

This is now an area that you can walk under *with confidence*.

