

GODDARDS LIMESTONE QUARRY, STONEY MIDDLETON: RESTORATION LEGACY



KEY

FORMER QUARRY BOUNDARY

MATURE WOODLAND

ESTABLISHED RESTORATION TREE AND SHRUB PLANTING

RESTORATION TREE AND SHRUB PLANTING

EXISTING GRASSLAND

CONTOURS (AT 1.0m INTERVALS)

REINSTATED GRASSLAND (Areas seeded using locally sourced hay or seed)

REGRADED SLOPES AND QUARRY FLOOR (Areas to naturally recolonise)

EXISTING PUBLIC RIGHT OF WAY

PROPOSED PERMISSIVE FOOTPATH

DRAINAGE PROVIDED BY LAGOONS, LOW SPOTS AND SOAKWAYS

About 360 million years ago, most of what is now the Peak District was under a shallow tropical sea. The fossilised remains of the marine creatures, such as shellfish, sea-lilies ('crinoids') and corals, formed the limestone that lies under the White Peak area of the Peak District National Park. Around 326 million years ago, sands, gravels and mud were deposited on top of the limestone to form the gritstone and shale of the Dark Peak. Movements in the Earth's crust caused cracks in the limestone and hot liquids deposited veins of minerals in these cracks.



Life Forms - Old and New:

Above - Crinoid Fossils and an ocean view typical of the Carboniferous Period (65 million years)

Right - Site supports Peregrine Falcons and Great Crested Newts, amongst others



Views south-westwards:

Left - Summer 2007 - Quarry operational, with uppermost slopes restored

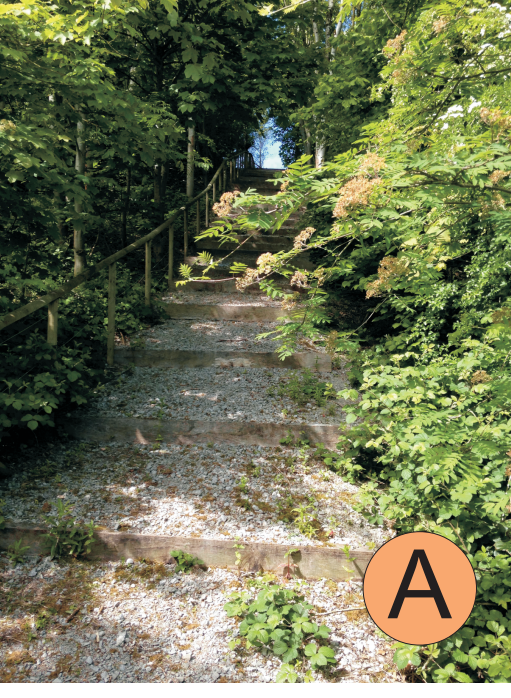
Right - Summer 2017 - Quarry restored, faces retained and linked by slopes of species-rich calcareous grassland to replicate traditional Peak District hay meadows



Reinstated Woodland Path:

Left - Winter 2010 - Quarrying complete and final restoration works undertaken

Right - Summer 2017 - Steps and path within maturing woodland landscape



Although quarrying is often associated with harmful impacts, it can also have positive benefits. For example, previously worked and restored sites may provide increased biodiversity, geological and recreational value

The Peak District National Park Authority is the planning authority for the area and is responsible for conserving and enhancing the natural beauty, wildlife and cultural heritage of the Park. It is also required to promote opportunities to understand and enjoy the Park's special qualities, and to consider the economic and social well-being of local communities. The National Park Authority works in partnership with many other organisations to achieve these goals.

In Roman times, Peak District limestone was quarried for building stone and to make lime for mortar. The limestone in the area is often very pure (high in calcium carbonate) and has many chemical, industrial and construction uses. As early as 1521 quicklime was being used to improve agricultural land and lime kilns (for heating limestone to produce quicklime) were a familiar sight in the Peak District. Lime was also used in lead smelting. The cutting of canals and, later, the opening of the Cromford and High Peak Railway increased lime exports, to be used in building and other industries.

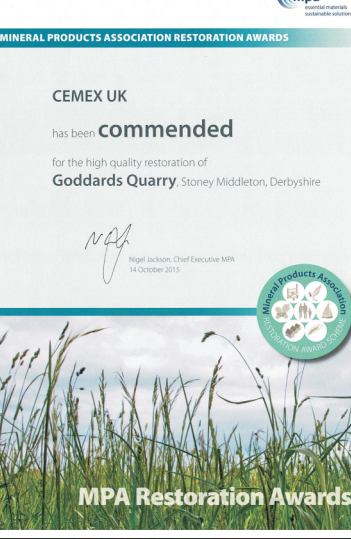


View eastwards, Quarry operational in June 2007:
Grassed slopes created with reject stone, soils and finer materials;
Faces retained for geological interest and for roosting sites.

Mineral Products Association Restoration and Biodiversity Awards 2015: MPA Restoration Award Winner COMMENDED

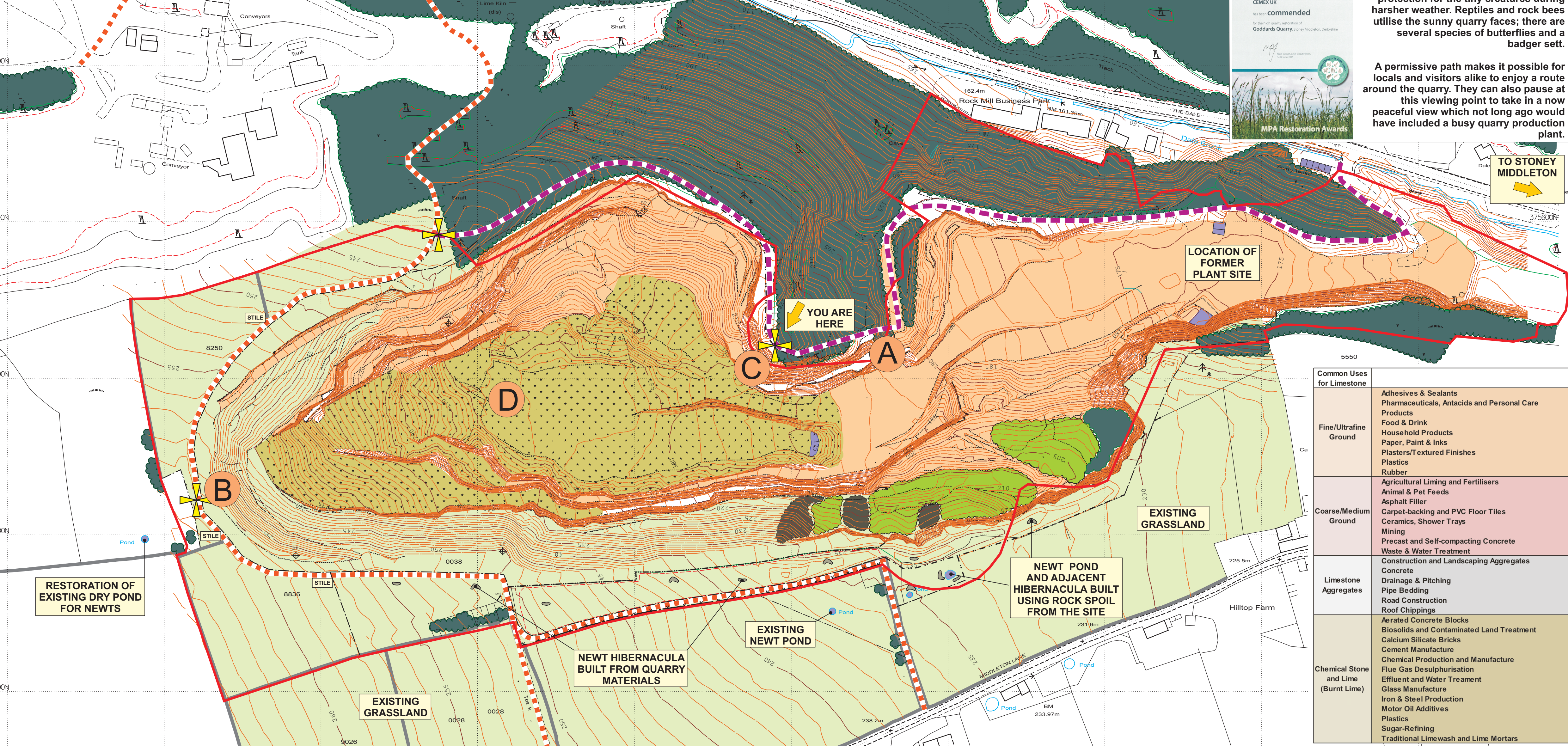
Blending a limestone quarry that has been worked for some 70 years back into a landscape as beautiful as the Peak District National Park is no easy prospect. Given that CEMEX's restoration of Goddards Quarry in the Hope Valley didn't start in earnest until 2010, the transformation from industrial scene to picturesque grassland is remarkable.

The fact that steep slopes had previously been hydroseeded with grass and some trees planted meant that the general process of softening the scene had already started. The rock faces were then blasted to reduce their height and ensure their safety. They were, nonetheless, left exposed as a key element of the new scene, containing fascinating fossil beds.



There are also ponds for newts, complete with hibernacula to provide added protection for the tiny creatures during harsher weather. Reptiles and rock bees utilise the sunny quarry faces; there are several species of butterflies and a badger sett.

A permissive path makes it possible for locals and visitors alike to enjoy a route around the quarry. They can also pause at this viewing point to take in a now peaceful view which not long ago would have included a busy quarry production plant.



Common Uses for Limestone	
Fine/Ultrafine Ground	Adhesives & Sealants Pharmaceuticals, Antacids and Personal Care Products Food & Drink Household Products Paper, Paint & Inks Plasters/Textured Finishes Plastics Rubber
	Agricultural Lining and Fertilisers Animal & Pet Feeds Asphalt Filler Carpet-backing and PVC Floor Tiles Ceramics, Shower Trays Mining Precast and Self-compacting Concrete Waste & Water Treatment Construction and Landscaping Aggregates
Coarse/Medium Ground	Concrete Drainage & Pitching Pipe Bedding Road Construction Roof Chippings
Limestone Aggregates	Aerated Concrete Blocks Biosolids and Contaminated Land Treatment Calcium Silicate Bricks Cement Manufacture Chemical Production and Manufacture Flue Gas Desulphurisation Effluent and Water Treatment Glass Manufacture Iron & Steel Production Motor Oil Additives Plastics Sugar Refining Traditional Limewash and Lime Mortars
Chemical Stone and Lime (Burnt Lime)	

Robert Goddard and his quarry workers in the early part of the 20th Century



Since the 17th century, the Peak District has been Britain's largest lime and limestone producer. The rich deposits of carboniferous limestone have provided – and are still providing – vast quantities of raw materials for use in industry.

The use of gunpowder in blasting at the beginning of the 19th century established limestone quarrying and significantly increased production. The stone was used for burning to produce quicklime, a soil improver used by farmers and for the newer industries that developed with industrial revolution.

Limestone was crushed and used for road surfaces and in the production of asphalt macadam. By the early 20th century large volumes of limestone were used as a flux in blast furnaces for smelting iron and in the large-scale manufacture of glass.

Limestone quarrying grew enormously in scale throughout the 20th century reaching a peak of 8.5 million tonnes in 1990. In 2008/9 4.1 million tonnes of limestone was quarried for aggregate uses and 3.8 million tonnes for non-aggregate uses from within the Park.

