

PART OF THE ECONOMY

The Yorkshire Dales National Park has great natural beauty, fashioned from its underlying rocks. Equally important, it hosts a living community, which quarrying has been part of for centuries. While quarrying continues to be an important part of the local economy, calls are heard from pressure groups for it to cease: seldom are they echoed by the communities whose well-being depends on the industry.

To deliberately destroy employment in the Dales would be a folly of gigantic proportion indirectly affecting many other people. Dales quarries supply essential products to local markets, normally within 80 km travel. If local quarries close, the monetary, social and environmental costs of construction activity will increase dramatically: increasing transport costs, road congestion and lorry pollution.

Of course, the industry recognises its responsibilities to the environment. My own company, Hanson Aggregates, in recognition of environmental improvements made, has received a number of awards and is an ISO 14001 accredited site.

Horton Quarry used to be rail linked but previous owners dismantled this facility. The company aims to reconnect the facility to reduce road vehicle movements.

In 2005 Hanson Aggregates re routed HGV vehicles leaving Giggleswick Quarry: 285,000 tonnes of material, about 26,000 vehicles movements, now avoid Giggleswick and Settle. Quarrying companies are justifiably proud of this proactive approach to solving local issues, working with local communities and authorities to bring about positive improvements.

Provision of the right quality construction material from local sources is good for the economy and with the right care and planning, can be a good environmental solution too. It is a fact that minerals can only be worked where they naturally occur and these areas are sometimes within National Parks.

Robin Gillespie is Unit Manager at Ingleton, Horton and Giggleswick Quarries for Hanson Aggregates, a member of the Corporate Forum for National Parks

DESPOILING OUR HERITAGE

For both residents and visitors it is a wrench to watch the heartland of the Yorkshire Dales - crushed lumps of its incomparable limestone landscape - loaded daily in numberless wagons to feed unfeeling maws somewhere beyond Settle and Skipton.

The quarries gash or even remove the hills. Earlier this century, when production was small, the workings were tolerably in scale with their surroundings. Now they are savagely disproportionate.

They ravage the landscape and also destroy the smaller gems of beauty and interest.

The stone loads, most of them on the roads and not the railway, can form a torrent of noise, nuisance and danger.

Besides, much of this is chemical grade limestone, a non-renewable resource, the bulk of it going wastefully as roadstone and aggregate.

Where will it end? Demand for stone will never cease, and as planning consents run out there will be pleas to extend some of them. Today we hold the Dales in trust. Generations to come will loathe and despise us for despoiling their heritage. But we do not always have to stand by while these things continue.

Company profits are beside the point, even if these pure limestones are cheaper than the mixed strata elsewhere. Existing jobs are not an issue, since no one could afford the cost of buying out operational quarries in order to close them down.

It is when operators want fresh consents that public opinion must give firm backing to the National Park Authority in showing responsible trusteeship.

Richard Harland has lived in Grassington for over 45 years and is a member of the Open Spaces Society and a keen Rambler. The views expressed here are personal

DECISIONS IN THE FUTURE
YOUR FUTURE

The market for quarried stone is called a 'derived demand'. People do not buy aggregates; they buy a way of life. The use of these materials continues to rise to satisfy the demand for more roads, homes, schools, hospitals ... the list is endless. Local authorities have a legal duty to draw up plans which make them able to meet local demand; the greater the consumption the more they have to find. The forecast demand for quarried aggregate in England is 2686 mt (million tonnes) between 2001 and 2016. It is planned that the Yorkshire Dales will supply 66 mt towards this national total.

On the other hand, greater use could be made of recycled and secondary materials. Aggregates could be used more efficiently with less waste and high quality aggregates need not be used where lower quality materials would be adequate. An increase in the price of primary aggregates could help, making the price of secondary materials more competitive. The government has introduced an 'Aggregates Levy' of £1.60 per tonne, on primary aggregates (in 2002).

Should minerals planning guidance seek to manage demand rather than supply? For example, in England one tonne in three goes into the construction, repair and maintenance of roads. Money could be put into public transport rather than into more roads.

Public concern over the environmental impact of mineral extraction is increasing. To what extent do we need to consider how we can change our lifestyles so that concern can become action and what kind of action, if any, would be appropriate?

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Quarrying

a grey area

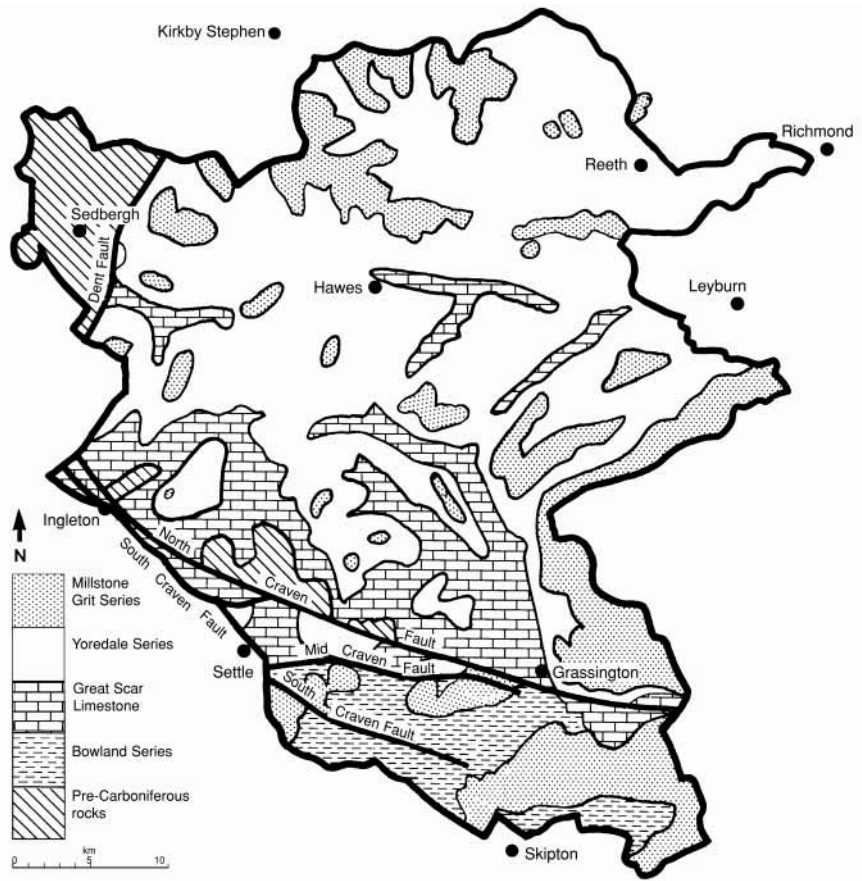
The quarrying industry in the Dales dates back hundreds of years. Stone from small local pits was used to create the distinctive Dales landscape of dry-stone walls, field barns, farmsteads and villages. But quarrying today is a far cry from such 'cottage industry' times: quarrying in the Dales is big business. Sales from national park quarries in each of the last 5 years have been around 4 million tonnes, about one third of the total crushed rock sales from sites in the Yorkshire and Humber region.

National Parks were created to protect beautiful scenery, quarrying inevitably changes that scenery. It can also create noise, dust and traffic problems. However, quarries provide employment for rural communities where often there is little. It is the job of the National Park Authority to ensure that quarrying operations are as environmentally acceptable as possible.

WHY QUARRY IN THE YORKSHIRE DALES?

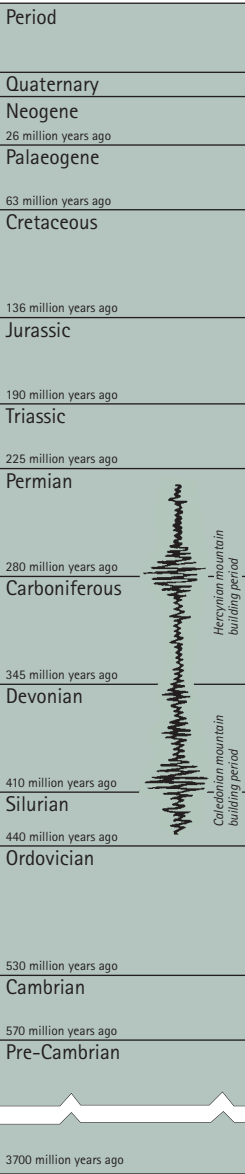
Rocks are the foundation stones of the distinctive Dales landscape. But rocks, and the minerals they contain, are not just a part of the natural environment, they are also valuable raw materials in their own right. It is a geological fact that the National Park is a prime site for quarries - the limestone and grits are essential raw materials for the construction industry.

At present 3 distinct types of rock are quarried in the Yorkshire Dales: Carboniferous limestone, Carboniferous sandstone and 'gritstones' (siltstones and sandstones from within the Ordovician and Silurian rocks).



Geology of the Yorkshire Dales

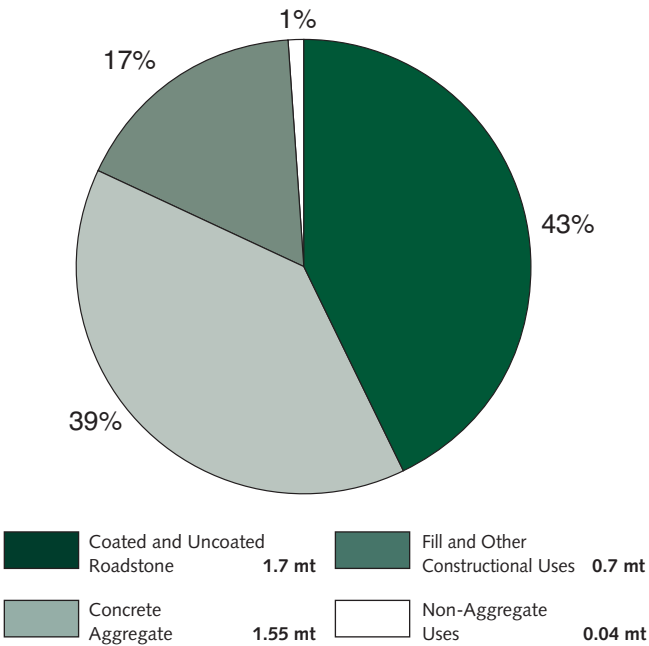
TIMESCALE
Geological time is divided into Periods, representing episodes during which particular groups of rocks were laid down.



WHAT IS THE STONE USED FOR?

Most of the rock produced within the National Park is used in construction, either on its own or mixed with cement to make concrete, or with bitumen to make asphalt. Gritstone is used for a variety of surfacing applications - roads, footpaths, airport runways. One of the most important qualities of gritstone is its ability to resist skidding. Carboniferous Limestone with its high calcium carbonate content can be used for many purposes - agricultural and industrial lime, building stone, flux for the steel industry, glass making - although most is used as aggregate, as illustrated in the figures and pie chart.

YORKSHIRE DALES NATIONAL PARK: END USES OF SALES IN 2003 (THOUSAND TONNES)



(The term aggregate is used to refer to crushed rock (or sand and gravel) used by the construction industry either mixed with other materials to form concrete or asphalt or used alone as fill material).

YORKSHIRE DALES NATIONAL PARK: SALES OF CRUSHED ROCK, 1998 – 2004 (MILLION TONNES)

1998	4.4
1999	4.0
2000	3.9
2001	4.0
2002	4.0
2003	4.0
2004	3.8

AROUND THE QUARRIES

Rail facilities at **Swinden Quarry** near Cracoe have been upgraded. This keeps about 42,000 lorries off the road each year. A permission granted in 1996 allows the quarry to deepen by 100m. A new processing plant has been constructed within the quarry and the old plant has been removed and the area landscaped. The life of the quarry has been extended to 2020 and the site will then be restored and managed for nature conservation.



Swinden Quarry. Old plant now demolished. Swinden Quarry New plant.

Threshfield Quarry was worked under an extensive permission dating from 1952. The upper quarry faces had become more conspicuous from the surrounding countryside and major landscaping works have been carried out progressively to improve appearance. The quarry is currently inactive, pending discussions on permanent closure.

Cool Scar Quarry at Kilnsey was extended in 1987 following two public inquiries. The quarry closed in 1999. Restoration for nature conservation has been completed.

Extraction at Giggleswick Quarry has reached the outer boundaries of its 1973 permission. Improvements to the processing plant were approved by the NPA in 1993. Quarrying is expected to be exhausted by 2008.

At **Dry Rigg Quarry at Helwith Bridge**, permission given by the NPA in 2005 permits quarrying until 2009. Landscaping is being carried out in the quarry and the site is to be restored around a lake.

Arcow Quarry at Helwith Bridge is now operating under permission, granted in 2004, until 2011. Major landscaping and works to ensure the long term stability of the rock faces have been undertaken.

At **Horton Quarry** work continues under extensive permissions granted in the 1950s and 1960s until 2042. The site has large permitted reserves and is very prominent in views from the surrounding countryside. Major landscaping works and other improvements have been agreed with the quarry company and are now being implemented.

At **Ingleton Quarry** extensive landscaping work has been carried out. The quarry plant has been re-sited, screening banks have been built and trees planted. A final restoration scheme based around a central lake has been approved. Current permission ends in 2013.

Hill Top Quarry, at the head of Swaledale, is a small quarry producing building stone and stone roofing slates with permission until 2009.



Ingleton Quarry. Aerial view. (Hanson Aggregates).

Ingleton Quarry. Modern plant.

NATIONAL POLICY ON MINERAL WORKINGS IN NATIONAL PARKS

‘Minerals Policy Statement 1’ (MPS1)

8 Protection of Heritage and Countryside

‘Ensure that major developments do not take place in National Parks, the Broads, the New Forest Heritage Area, Areas of Outstanding Natural Beauty and World Heritage Sites except in exceptional circumstances. This includes proposals that raise issues of national significance. Because of the serious impact that minerals developments may have on these areas of natural beauty, and taking account of the recreational opportunities that they provide, applications for all mineral developments should be subject to the most rigorous examination. Mineral developments should be demonstrated to be in the public interest before being allowed to proceed. Consideration of such applications should therefore include an assessment of:

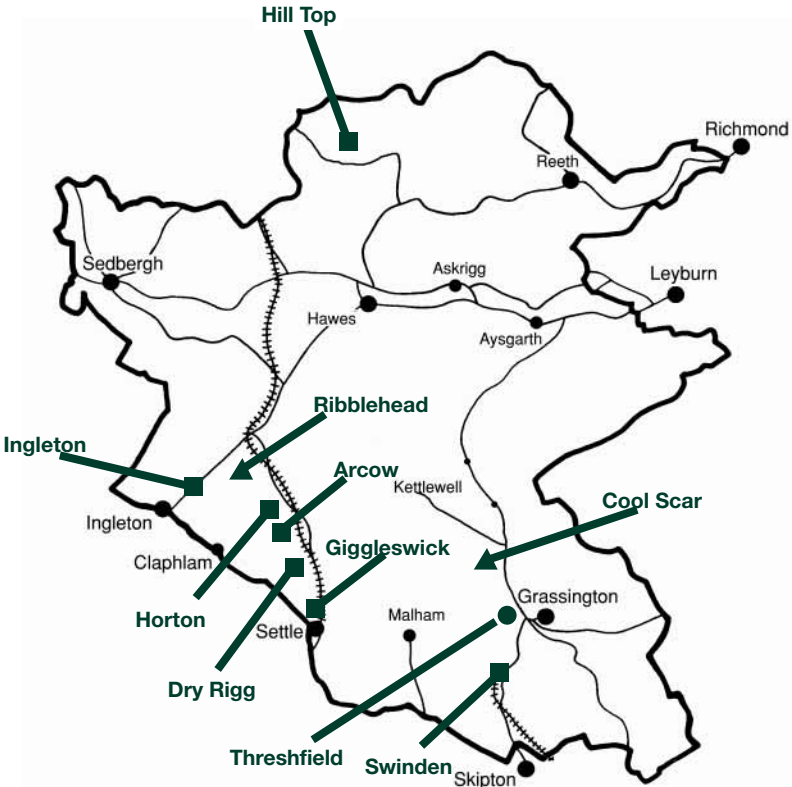
- the need for the development, in terms of national and regional considerations of mineral supply and the impact of permitting it, or refusing it, upon the local economy;
- the cost of, and scope for making available an alternative supply from outside the designated area, or meeting the need for it in some other way;
- any detrimental effect on the environment, the landscape and recreational opportunities and the extent to which that could be moderated;
- in the case of extensions to existing quarries and sites, the extent to which the proposal would achieve an enhancement of, or be detrimental to, the local landscape.

Where planning permission is exceptionally granted, all restoration should be carried out to high environmental standards, and in character with the local landscape and its natural features.’

WHAT ARE THE ENVIRONMENTAL ISSUES INVOLVED?

Mineral workings bring many potential effects on the environment. The problem facing those involved with mineral planning is the extent to which these effects can and should be moderated. The main issues include:

- The removal of the scenery. Limestone and gritstones are non-renewable resources - they cannot be replaced.
- The transportation of quarried materials. There is a major conflict between tourist, local and business traffic, especially in the form of heavy goods vehicles, many of which carry quarry products. About 25% of materials produced within the Dales leave by rail. The NPA wants to increase this figure. However, rail linking quarries also requires construction of rail linked distribution centres in the main cities such as Leeds.
- The potential for noise, dust and water pollution. Quarrying sites may produce pollution from various sources. Much is now being done to lessen the effects of these. It is the noise and dust from quarry lorries which local residents and visitors find most intrusive.
- Site restoration after mineral extraction. The impact on the landscape after mineral working has ceased is a major factor in the process of considering planning permission. Can a quarry be landscaped to disguise the scars? Could the restored site provide an alternative use?



■ Working ● Inactive ▲ Restored
Quarries within the Yorkshire Dales National Park

WHAT PERMISSION IS NEEDED FOR QUARRYING?

The Yorkshire Dales National Park contains three-quarters of the existing permitted working reserves of Carboniferous Limestone in the Yorkshire and the Humber Region. In many cases permission to quarry was granted long ago when environmental concerns were not so high on the political agenda. Indeed, most of the major quarries in this area developed with the coming of the railways.

As with any other development within a National Park, a planning application must be approved before work can start. Any decision by the NPA on granting planning permission now has to consider a number of factors.

The Yorkshire Dales Minerals and Waste Local Plan was adopted in 1998: it is to be replaced by a new Development Plan document.

National policies are detailed in the Government's planning and minerals policy statements.

The Environment Act 1995, requires the review and updating of all minerals permissions granted before February 1982. The process is awaiting review by the ODPM. In addition, permissions must be reviewed every 15 years. There are 3 reviews of old minerals permissions applications outstanding, at Horton, Threshfield and Giggleswick Quarries.

The National Park Authority works in co-operation with quarry operators to minimise the impact on the countryside.

Most quarries hold regular liaison meetings with parish councils and companies have generally worked well with local communities.

Hanson Aggregates has agreed not to re-open its dormant quarries at Ribbleshead and Helwith Bridge.