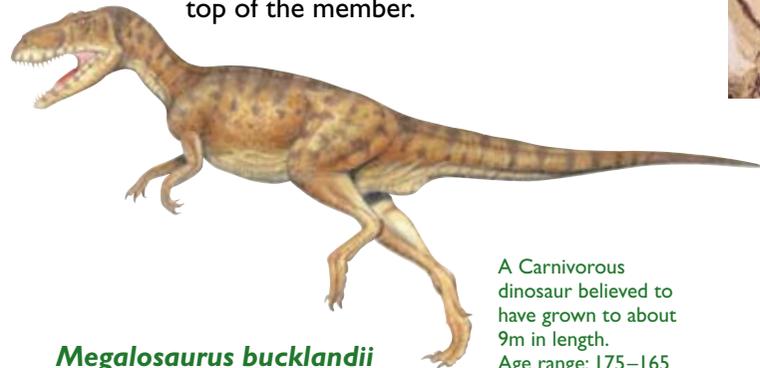


FOSSILS

A wide variety of fossils are known from the Daglingworth Quarry. Oysters, pectinids (scallops) and echinoids (sea urchins) can be found within the Taynton Limestone and Hampen Formations.

Discovered within the sandy lenses of Hampen Formation are rare plant fragments, and dinosaur footprints have been found near the top of the formation. These are now on display at the quarry office. The Shipton Member is generally devoid of fossils except, for a few beds containing borings and burrows made by marine animals such as molluscs and worms. At the top of this member is the Excavata bed where gastropods and the echinoids, *Clypeus* and *Cidaris* are found in abundance.

Trace fossils, borings and bivalves are found in many beds throughout the Ardley Member. Fossils from large reptiles have been found from near the top of the member.



Megalosaurus bucklandii

The World's First Officially named Dinosaur.

A Carnivorous dinosaur believed to have grown to about 9m in length.
Age range: 175–165 million years ago.

INFORMATION



Hanson Aggregates

Daglingworth Quarry, Nr Daglingworth Village, Cirencester,
Gloucestershire. Telephone: 01285 655 961

Located on the east side of the A417,

National Grid Ref: 400026, 206030 Grid ref: SP 001 061



An interpretation board and viewpoint is located on the bridleway running along the northern side of the quarry



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A GUIDE TO
**DAGLINGWORTH
QUARRY**

Quarrying



Hanson Aggregates works Daglingworth Quarry, extracting limestone aggregate for road building, ornamental driveway stone and dust for brick making. Extraction of stone from the site is believed to have started in 1905, since when it has been in almost continuous use. The planning permission for the quarry expires in 2042 and progressive restoration is currently being undertaken.

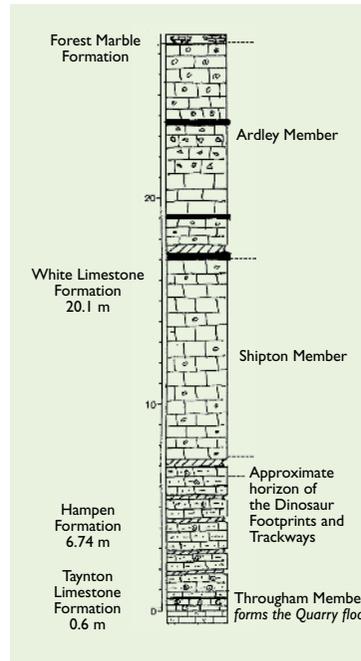


Extraction Methods

Daglingworth Quarry is worked by hydraulic excavator, with larger blocks being broken down at the face by the use of a wrecking ball. The material is then hauled to a processing plant, which houses the primary and secondary crushers. From there, the material is fed to two screen houses via conveyor belts. The material is sorted into five grades of limestone aggregate for use in road building and ornamental gravel with the dust being processed for brick making.

Geology

The quarry exposes about 30 metres of Middle Jurassic, Middle to Upper Bathonian Stage, Great Oolite Group. The Bathonian Stage lasted from 167.7 Million years ago to 164.7 Million years ago.



Stratigraphic column showing the strata exposed at the Quarry.

After Sumbler, Baron & Morigi, 2000.



The Througham Member is a grey, fine-grained, ooidal (1mm or less, round grains formed by precipitation of calcium carbonate around shell fragments or sand grains) limestone and grey, sandy limestone.

The Taynton Limestone Formation is an ooidal limestone, containing coarse-grained shelly fragments within it.

The Hampen Formation is a sequence of grey/brown, fine-grained, thinly bedded, ooidal limestones and grey, well bedded, lime rich marls.

The White Limestone Formation contains the Shipton & Ardley Members.

The Shipton Member sediments are of a white to light brown, poorly bedded, peloidal limestones. The peloids (1-2 mm, round to oval grains, formed around faecal pellets or mud clasts) are stained a yellow brown due to the presence of iron.

The Ardley Member consists of peloidal limestones with several beds of Dagham Stone. This is a recrystallised, honeycombe weathered limestone.

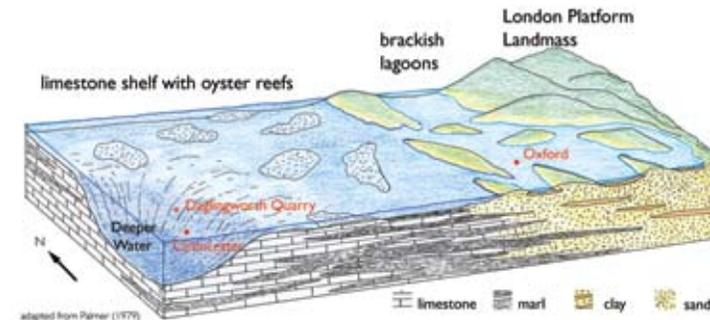
The Forest Marble Formation only occurs at the northern end of the quarry and is an interbedded sequence of clays and coarse, shelly, crystalline limestone.

Daglingworth during the Jurassic.

During the Middle Jurassic, the area that is now Southern Britain was very different from today and lay at about 40° N of the equator (the latitude today occupied by the heel of Italy).

To the east lay a low lying landmass called the London Platform with an extensive, very shallow, marine shelf to the west. Throughout the Bathonian (Middle Jurassic), the position of the shelf margin fluctuated with the occasional emergence of some areas above sea level.

It was onto this marine shelf that the strata exposed at the Daglingworth quarry were laid down.



Idealised view of the area during the Middle Jurassic period