Fulwell & Carley Hill quarry [NZ 382 598]

Disused Quarry

Owned by

The quarry has long been justly famous for its bewildering array of bizarre calcite concretions. Unusual rock types are exposed in series of rock faces. Building stone connection. Some of the most dramatic textures are in fallen and loose blocks lying around the quarry. Opportunity for community involvement

Proposed action Undertake detailed survey of current condition. Many of the sections are overgrown. Ensure most interesting examples are visible by cleaning and expososing as necessary . Prepare a 'sensory' trail with description and examples of the rock textures suitable for the visually disabled and with wheelchair access.

Existing designations GCR LNR

Existing on site interpretation None

Major geodiversity interest The disused quarries at Fulwell and Carley Hill are of national geological importance showing the greatest variety and most spectacular development of dolomites and dedolomites in the Late Permian Concretionary Limestone. The series of dolomites and concretionary limestones exposed in these quarries consist of thin-bedded to massive, grey and brown crystalline, finely laminated limestone with subordinate beds of unlaminated cream-coloured dolomite which were deposited during the second cycle of the English Zechstein. The laminated beds display a great variety of calcite concretions, with complex three-dimensional combinations of concentric, rhythmic bands and radial calcite crystals, on scales ranging from millimetres to more than 20 cm, some of which are associated with bedding and joint planes. The unlaminated, dolomitic beds generally contain fewer calcite concretions and these tend to be of a subspherical, so called "cannon-ball", type. Well preserved plant and fish remains have been found at several levels at Fulwell Quarry and fish remains are best known from, and most abundant in, a thin bed about five metres above the base of the Flexible Limestone.

Biodiversity interest Associated areas of semi-natural Magnesian Limestone grassland.

Other heritage links Building stone and industrial archaeology connections. Fulwell windmill was built with stone from the quarry (1808) Quarrying, largely for lime burning and building purposes, started before 1746 and ceased in 1957; much of the output was transported by wagonways to ships on the River Wear, 2 km to the south.

Additional comment Links by footpath to Fulwell Mill. Good viewpoints

Date of photography 2008

(Photo 1) Fulwell & Carley Hill quarries.

(Plate 15) Rock textures exposed in Fulwell Quarry and surroundings.

References

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