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# Napps Cave

[SS 565 475]

## Highlights

This cave has only a short length of relict passages, but these contain some of the finest aragonite speleothems in Britain.

## Introduction

Napps Cave was exposed at the turn of the century in a quarry into the eastern slopes of Napps Hill, west of Combe Martin on the north coast of Devon (Figure 1.2). The cave is a small remnant system of abandoned passages developed in a dipping band of limestone less than 20 m thick within the Middle Devonian Ilfracombe Beds. The cave is rarely visited as its aragonite is very fragile, and is briefly recorded only by Vowler (1980, 1981).

## Description

Napps Cave consists of several elongate chambers connected by small rifts. Access to the cave is via one of these rifts where it has been intercepted by a quarry face, and about 200 m of passages have been explored. The walls of most of the rifts in the cave are decorated with anthodites — spectacular clusters of radiating aragonite crystals up to 70 mm in length (Figure 7.4).; these vary from pure white to browns and greys due to iron staining. Floor deposits include layered stalagmite of both aragonite and calcite, overlying thick clay, and there are various dripstone features including stalactites and very delicate helictites.

## Interpretation

The morphology of Napps Cave is that of a short network of broad tubular passages connected by narrow rifts. The whole cave is a phreatic remnant, parts of which have developed along the steeply dipping boundaries between the limestone and adjacent mudstone.

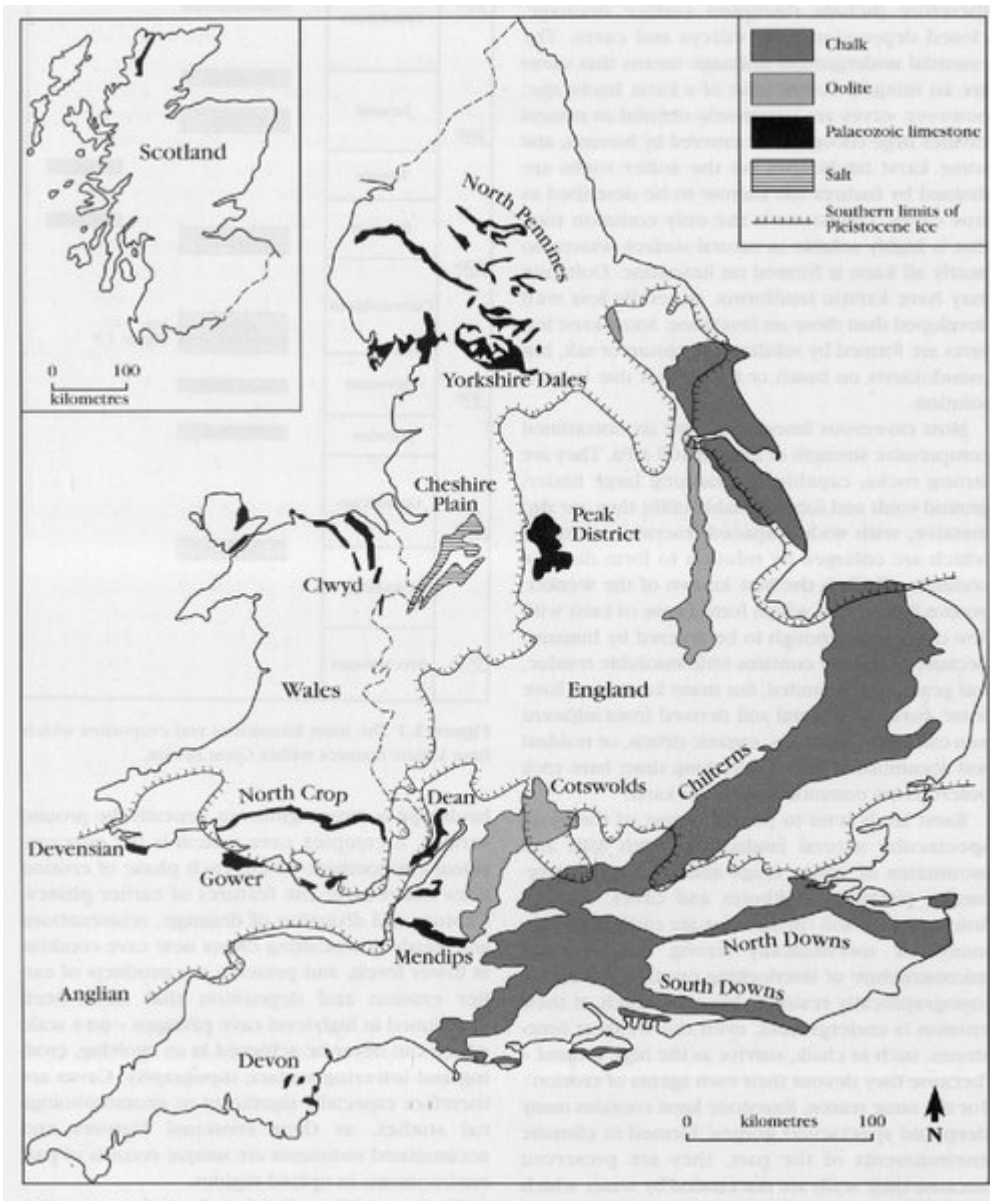
Cave anthodites are generally the product of deposition by slowly moving film water which is lost to evaporation. This makes them distinct from dripstone which is deposited due to loss of carbon dioxide. Aragonite is the common mineral of anthodites, and generally precipitates in place of calcite where the carbonate is high in strontium; this situation is more common in thin limestones within clastic sequences. The precise controls on aragonite deposition and anthodite growth are unknown, but the environment of Napps Cave appears to fit the general case.

Although this cave is very small, the aragonite formations which it contains are the largest and most spectacular in Britain. The controls on their development await detailed research.

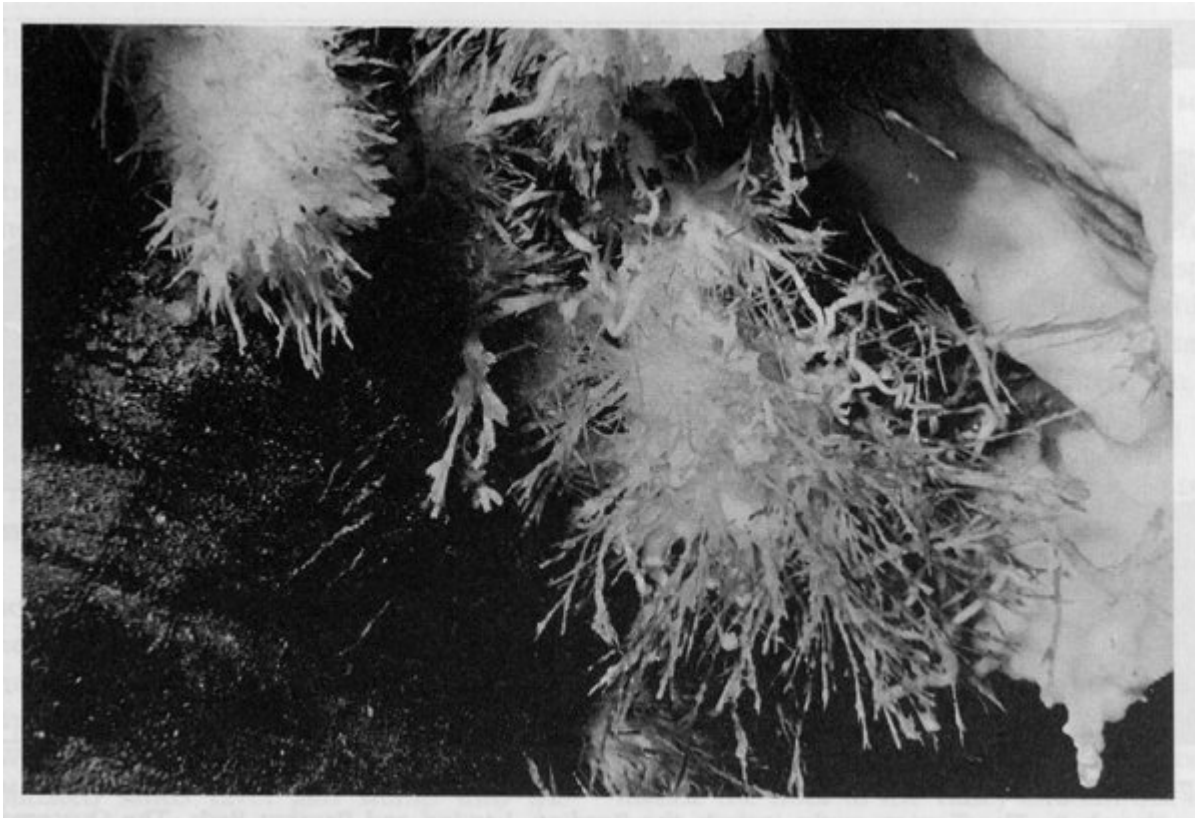
## Conclusion

This isolated small cave is highly valued for the aragonite crystal formations, which are the largest and finest in Britain.

## [References](#)



(Figure 1.2) Outline map of the main areas of karst in Great Britain. The Palaeozoic limestones are of Lower Carboniferous age, except for the Devonian limestone in Devon, and the Cambrian–Ordovician limestone in Scotland.



*(Figure 7.4) Clusters of delicate aragonite needles on the walls of a rift in Napps Cave. (Photo: F. Vowler.)*