

An Ancient Sea Floor in St Michael's Church, Helston

The recently laid (2020) paving in the interior of St Michael's Church provides a glimpse of an ancient sea bed which formed 47 million years ago. The stone used is from north-central Turkey, more specifically from the vicinity of the town of Safranbolu in Karabük Province. This is a good quality stone which will last well as paving in the interior of the church, but look more closely, the stone is packed with fossils. The most abundant fossils are the most difficult to see, they are the remains of single celled organisms called nummulites which were extremely common during the geological period in which this rock formed, the Eocene. In life, these would have resembled slightly wobbly, coin-shaped shells but in the cut and polished stone, we tend to see these in cross-section. More noticeable and striking are the white fossils which are of typical seashells, and more unusually of fossil sea-urchins (echinoids). Sections through the dome-shaped shells of these animals are common throughout this rock. This rock also contains rare fragments of bones, perhaps those of sea-living mammals or reptiles. These are dark brown angular fragments and it is impossible to identify the animal from such small pieces. The bone fragment illustrated below lies behind the pews at the south east end of the church.

Geologically, this stone belongs to the Bulak Member of the Küpler Formation, Karabük Group of Lower Lutetian (Eocene) age. These beds are a variety of limestones known as 'calcarenites' and they represent sediments formed on the continental slopes after storms had swept debris away from the continental shelf.



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