BRACKLESHAM MEETING SEPTEMBER 25 2011

OUR PARTY OF 13 REACHED West Wittering mid morning for a glorious day of seaside geology in the late summer sun. Our local expert for the day, David Bone, met us in the car park of the mysteriously named Old House at Home. We walked together to Chichester Harbour, and stood on the lowest – and latest – of the raised beaches to view the landscape, from the Isle of Wight and Portsmouth in the west to the Downs in the north. The highest of the raised beaches towards the Chalk had been home to Boxgrove Man.

Beneath our feet, at the edge of the water, was a scatter of large rounded boulders, easily mistaken for the remains of imported sea defences. In reality they were a mix of hard sandstone sarsens, which had worked their way down from higher eroded levels, and granites thought to have been ice-rafted over from the Channel Islands or Brittany. Without David, would we have noticed? A short walk along the water's edge brought us to a small exposure at the base of the Bracklesham Group, the transition from the underlying London Clay marked by a pebble bed of dark-stained flints. From there we turned back inland to the pretty Norman Church. Here David gave us a virtuoso exposition of the building stones, drawing on a decade's study of the more than sixty sources employed for churches in the region. Photographs were taken of a high-spired gastropod emerging from a concretion in the church wall, demonstrably from the London Clay, but every stone had its story. There is no supply of decent building stone nearby, so everything had been pressed into service. The stones mapped the local geology and distribution systems. Coastal sites had allowed transport from further afield, from the Isle of Wight, from Portland, and from Caen in Normandy for prestige buildings.

An excellent pub lunch (but who ordered the lamb?) was followed by a short drive to Bracklesham. David gave us a show-and-tell as an introduction to the local Eocene palaeontology. The party then worked its way along the beach in the direction of Selsey, scooping up fossils washed out from the Earnley Formation offshore. Exposures were just elusive on the day, except to the intrepid David and Phil Powell, at the cost of wet feet to both. The common fossils were collected in plenty, especially the Venericor bivalves,'Turritella' gastropods, oysters, hoards of the large foraminiferan Nummulites, and fossil wood – in short the visible remnants after 45 million years of a sub-tropical sea adjacent to land. Sharks' teeth, fragments of ray palate and turtle shell, and a fish vertebra rewarded the alert or lucky. Some people make their own luck, of course, so it was no great surprise when David produced a spectacular shark's tooth found there and then, as he asserted with some conviction. So a great day for all, except no ice cream. Paul, please note.

Chris Howgego

David Bone at Bracklesham