

## Rathlin Island

21st June 2014

**Leader Peter Millar**



Brockley

After some negotiation, we were able to get on a bus which dropped us off at **Brockley**. This is a site famous for its Neolithic axe factory. The beautiful polished stone axeheads from here are very similar to those from **Tievebulliagh** near Cushendall and can really only be distinguished by chemical analysis. The farmer was kind enough to show us his small collection of "rough-outs". We also examined the knoll behind the house which is the actual site of the factory. A sizeable hollow has been excavated in the side of this. We speculated that the very hard rock was extracted by building fires against the cliff and quenching it with water.

The rock is *Porcellanite* which was produced by an inter-basaltic laterite being heated by a dolerite plug which has penetrated it. The plug forms the knoll. The clay of the laterite has been naturally fired in a manner similar to a ceramic and this has produced a remarkably hard dark grey speckled rock. In contrast with Tievebulliagh, the laterite is not a mass of the Lower Interbasaltic Bed (now officially the Port-na-Spaniagh Member) which slumped into the plug, but is just one of the normal interbasaltic boles which happens to be exceptionally thick at this point, and also happens to be in contact with the plug. It is interesting that the Neolithic people were able to locate the only two occurrences of porcellanite in Antrim.



Rough out axe head

After leaving Brockley, we walked back to **Church Bay**. This was no hardship as the road is downhill (mostly!) and the weather was superb. We stopped at a viewpoint from where we had a fine view of Church Bay and the mainland. A buoy out in the bay marks the remains of H.M.S. Drake which was torpedoed in 1917. A recent book **H.M.S. Drake - Rathlin Island Shipwreck** by Ian Wilson gives a comprehensive account of the incident.

From here, we could see that the first part of the road to **Rue Point** is built on a ridge. This is a shingle ridge. The original Geological Survey opinion was that the sea broke across the low ground here, splitting Rathlin into two. Two shingle spits formed on either side of the gap and it is these which formed the ridge. A more recent paper by **R. W. G. Carter** suggests that it was actually an ancient storm beach. Shells from it have been dated at over 12,000 ybp.

We then had a very pleasant lunch in glorious sunshine at the small picnic site. From here the range of cliffs with the white chalk topped by the black basalt is striking. The clay-with-flints between the two is seldom seen: its position is marked by a grassy ledge.

In the afternoon we had planned to go to Rue Point but unfortunately no suitable transport materialised and so we decided to explore the vicinity of the Harbour.

Passing the information office and going east towards **Mill Bay** we could see the *Ulster White Limestone* ("Chalk") exposed on the foreshore. As these Chalk beds have been identified as being very low in the succession this may imply that the underlying Lias is just below sea-level in the centre of the bay. There is also an area of the Chalk which shows very steep dips - unusual in Antrim. Here we spent some time watching seals which were lying on the reefs.

On the east side of Mill Bay the top of the Chalk dips to below sea-level and this brings in the *Lower Basalt Formation*. Along this coast raised-beach benches and cliffs are well developed in the basalts.

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Mill Bay

In many parts of the world basalts show typical stepped trap topography but oddly enough in Antrim this is not always seen. However Rathlin is an exception for this type of topography is very well developed all over the island. Going a short way along the track towards Rue we stopped at Craigmacagan Lough, one of the many loughans which are such a feature of the southern peninsula of Rathlin. The stepped topography tends to encourage the development of such small lakes which pond against the scarps.

The highest part of the Rue peninsula is formed of basalts of the *Causeway Tholeiite Member*. On the mainland a thick Laterite, the *Port-na-Spanaigh Member*, separates the olivine-basalts

of the Lower Basalt Formation from the Causeway Tholeiites. But curiously on Rathlin although there is indeed a thick laterite, there is an olivine-basalt flow above it. This is an anomaly which has puzzled geologists over the years.



Common Seal

We retraced our steps along the main road which runs along the crest of the ridge, noting chalk cobbles in excavations.

Hereabouts there were Bronze Age (?) cists. Incidentally a longship burial was allegedly excavated nearer the beach in but there is now no sign of the site. The small building at the corner where you turn down to the pub is the **Rocket House** which housed line-carrying rockets, intended to be fired out to any boats which had gone aground below the cliffs.

It was just a little unfortunate that we were unable to follow all our original plans, but this was still an enjoyable excursion on a beautiful day.

Peter Millar