Picture Essay of the Ireland Coast

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PRELUDE

A band of scientists from the United States took the opportunity to view the magnificent coast of Ireland while attending the recent International Coastal Symposium (ICS'02) that was held at Templepatrick, Northern Ireland in March 2002. Eleven of us packed into four cars and began our journey after landing at Shannon Airport. We proceeded through tight roadways to the Cliffs of Moher and then traveled northward. Our extended field trip started prior to the conference and continued after its conclusion. There were also a number of exciting field trips during the conference. These adventures are represented, in part, by the following pictures taken by the entire group. We hope that the dramatic beauty of the Ireland coast will be incentive for you to visit another spectacular coast when ICS'04 travels to Brazil. The Universidade do Vale do Itajai (UNIVALI) will host the 8th International Coastal Symposium from 14 to 19 March 2004 in Itajai City, Brazil. We'll join you there!
Figure 1. Cliffs of Moher—Sheer cliffs 200 m high cut into interbedded Carboniferous sandstones, siltstones, and shales deposited approximately 320 million years ago. Note the sea stack in the distance.
Figure 2. The Burren—with two insets showing a wave cut platform and micro-karst development. Lighthouse at Black Head; location: Northwest Co. Clare on the shore of Galway Bay. Internationally famous karstic terrain formed on Carboniferous limestone. “Burren” is derived from the Gaelic word for “stony place.” The terraces are the large expanses of bare limestone with extensive system of crosscutting, vertical fissures that have been etched into rock by acidic rainwater.
Figure 3. Gowlaun Pocket Beach—with an inset showing antidune migration. Inset also shows series of "fluvial" terraces that were formed during the falling tide.
Figure 6. Barragah Island, Kilnale Bay—England's only barrier island is apparently derived from erosion of till deposits along the bay shoreline. It is possible that a moraine underlies the barrier.
Figure 10. Loughros Beg Estuary—Eight-kilometer long, sand clogged estuary along the southwest coast of Donegal.
Figure 11. Clonakilty Beach, Co. Cork. This is a cobble beach and gravel beach. The inset shows a close-up of cobble and gravel comprising the upper beach.
Figure 12. Magheraroarty, Tory Sound—Extensive sandy beach has formed from an abundant sand supply. Strong onshore winds have constructed a massive dune system (note people on beach for scale).
Figure 16. Magilligan Foreland—Cuspute foreland at the mouth of Lough Foyle comprising an extensive beach ridge complex. Ocean and estuary waves interact at the mouth of this wide, shallow estuary to produce a dynamic geomorphology. There is no obvious moraine or other glacial source for this sand, suggesting an offshore source.
Figure 17. Portstewart—High-energy boulder beach fronting an eroding cliff between raised marine abrasion platforms. Boulders and erosional features composed of Tertiary diabase.
Figure 18. Portrush—Curran Strand. The Royal Portrush golf course is partly threatened by erosion. Chalk block riprap is used to protect a green and tie. Note the protruding shoreline in lee of Skerries.
Figure 20. Giant's Causeway—Cliffs of stacked basaltic lava flows that are representative of a prolonged period of volcanism that began about 60 million yr BP. Note the red latitic soils horizons along the cliff face indicate long periods of volcanic inactivity. The reddish color suggests a tropical-subtropical weathering of the volcanic rocks. The inset shows details of the columnar jointing.
Figure 21. Giant's Causeway—Close up of columnar jointing. The hot viscous lava in this region shrank and cracked as it cooled, forming thousands of near vertical columns. The mostly hexagonally-shaped columns form a natural stairway into the sea.
Figure 22. Murlough Dunes—Dundrum Bay is the site of an extensive dune system landward of a wide flat beach. Seen here is a large blowout that has become stabilized by vegetation.