

## Intertidal Zone Archaeology

The intertidal zone has become one of the most exciting areas of research in recent decades. Growing awareness of the scale of rising sea levels and their ongoing impact on coastal archaeology has led to increased interest from the archaeological community. On the eastern side of the Inishowen Peninsula in Donegal archaeologists have identified an array of early Mesolithic material. On the banks of the River Liffey, in what was the mouth of tidal estuary on Dublin Bay pre-development testing has identified a Mesolithic fish trap. A number of shale axes which are probably of Mesolithic date, have been dredged up from the sheltered waters of Cuan Cashín, others have been found after powerful storms on the shores of Cuan Chillcaíran at Ard Mór on the south Connemara coast. Other shale axes have been found in an arc all along the south and west Connemara coast from Oileán na Feaminan near Bearna westward to Inis Laichan and northwest to Omev Island and Inishgort. Two Neolithic tombs are known from the intertidal waters of County Cork, one from Cork Harbour and the other from the Lag, in the tidal estuary of the Llen River near Baltimore, and human remains of Mesolithic/Neolithic period have been identified on the Shannon Estuary. There are no definite Neolithic sites yet identified in the intertidal zone of the Connacht Coast. The potential of this landscape was highlighted with the discovery of a Neolithic log boat within an intertidal peat at Bearna on Galway Bay, there are also a number of other possible sites including a possible Neolithic house and field wall at the junction of Faul and Clifden Bay (*reference* Gibbons article). The rise in sea level has both destroyed and revealed in equal measure. Recent dates from a tree within a drowned landscape on Inis Ní east of Roundstone have dated to 3,200 BC. It has been calculated, based on the dates from these tree stumps in the peat, that the scale of sea-level rise since the Neolithic can be estimated to be in the region of 4-5m plus. Leaving many ancient monuments and entire landscapes drowned within the sheltered waters of Connemara's numerous bays. In the west the potential of this environment was first documented by Rev Mac Bride in 1868 when he mapped a large intertidal field system on the Trá Mhóir in Killeany at the eastern end of Inis Mór on the Aran Islands. This groundbreaking discovery was quietly forgotten but survey work by the discovery program by Dr Aidan O'Sullivan demonstrates the huge potential of these landscapes with his work on the Shannon Estuary.

Additionally, the fragmentary remains of intertidal zone field systems have been identified by the author on Inis Meáin on the Inis Kea Islands off northwest Mayo and at several other locations on the Connemara coast and a number of these are likely to be prehistoric in date.



A double line of wooden post, Lettergesh Beach

The increasing power and ferocity of recent storms is resulting in the rapid erosion of many of our fragile coastal dune systems and the uncovering of a whole plethora of monuments and ancient artefacts. On the beaches either side of the tidal island of Omev an array of features has come to light including a partially enclosed glacial erratic, which was ringed with an arc of stone. A probable Bronze Age cist was brought to the attention of the author by local women Carmel Madden in the spring of 2024, it was exposed on the shore beneath her house in Fountain Hill on the mainland just opposite Omev Island after a large storm. The setting of stones suggest that it is the remains of a grave, and which was set into the intertidal peat. These sites are in a highly mobile setting, can vanish again as suddenly as they have appeared. This has occurred at a number of important sites that we only got to see very briefly before the sites were again claimed by the ocean and its powerful tides. The same 2014 storms also revealed antler tinies from a red deer antler skeleton in an intertidal peat on Rua Oileán, at the entrance to Cleggan Bay and the remains of a carved wooden post and fence line on Lettergesh beach.



The great winter storms of 2014 broke up and exposed large tracts of inter-tidal peat on many of the western beaches, embedded in the peat and still visible from time to time are tree stumps, traces of ancient prehistoric forests. At the moment, like the vast majority of features in the intertidal zone, it remains undated, with the exception of the Bearna Boat, which is Neolithic in date and a Mid Bronze Age date for a timber platform at Lippa on Galway Bay.

Part of a deer antler (tinie)

From time to time a range of portable artefacts are found also, with a wide range in dates, these include shale axes of probable Mesolithic/Neolithic date, saddle querns of Neolithic or Bronze Age date. There is a very fine flint core of probable Bronze Age date which came up attached to a lobster pot off the north Connemara coast. Early Christian and Medieval artefacts including stone crosses, rotary querns, anchors, and some very fine bone and metalwork artefacts including ring-pins and a spectacular kite brooch from Omeý Island.

There is a range of other monuments, features and artefacts with a wide range in dates from the Late Mesolithic through to the 19<sup>th</sup> century, that have been discovered within the intertidal zone of the Connemara Coast. Among them are a series of clearly natural features that have been interpreted as parts of sacred religious landscapes associated with the early Christianisation of the area. These include saintly stone boats, subsea roads, and numerous holy wells. These magical religious features are common in the granite-strewn islands off the Connemara coast. More orthodox monuments however are also found and these include a probable Bronze Age stone row on Ballynakill Bay, a single standing stone on Streamstown Bay, and the remains of a house site and a stone terrace at the junction of Clifden and Faul Bays. This house site and walls are located in an area where shell middens are common, one of which has been dated to the later Mesolithic Period.

There are a series of impressive stone fish traps at the mouth of a network of tidal streams flowing from Loch an tSáile (Athola), a sea lough on the southwest side of the Errislanan Peninsula. These traps were fished up until very recently by local people and were designed to catch sand smelt in the early summer, and a similar trap is to be found just south of the village of Carna and a related structure, a stone weir at Loch an tSáile (Atalia), a tidal stream at Aughrus, intertidal roadways at Bunowen.

In addition to these monuments, we have a range of both ancient and early modern quays, harbours and rock-cut steps associated with some of our significant Medieval and post-Medieval sites. Among the most important of these is a wharf/quay-front below the castle of Doon on Streamstown Bay (mentioned by Rory O'Flaherty 1684), further in the bay beneath Streamstown House there is a very large quay-frontage and store, perhaps related to the thriving 18<sup>th</sup> century smuggling industry, another quay on the shore beneath Doon Hill and Bunowen Castle may have been similarly utilised. Lesser quays are associated with some of the smaller landlords, one nice example can be seen on the Strand at Omeý Island beneath the Carney's house. Probably the best example we have, however, is a great crescentic harbour with associated house sites and hearth associated with the 17<sup>th</sup> century Cromwellian Fortress on Inishbofin Island. In addition to these there are a number of quays associated with the newer landlords that arrived in the late-18<sup>th</sup> century, good examples are to be found below Shanboolard Hall and on the north side of Cleggan Bay, perhaps related to a now lost 18<sup>th</sup> century house. During the course of various government interventions and Famine Relief Projects a large number of new quays and harbours were built throughout the area, many of them are poorly documented, one such example can be found at Cuan an Gabhair on the Aughrus Peninsula, and another on Omeý Strand, known as Claddaghduff Quay, yet another at Drinagh on the Errislanan Peninsula. While others are associated with the booming kelp and turf trades resulted in large

numbers of new quays being built, one particular good example was built by the Hazels, beneath their mansion at Doon Cottage. In addition to these landlord or State sponsored quays, local people built a myriad of literally hundreds of smaller slips and quays, often in close proximity to their houses, and in some instances, they had both high-water and low-water quays built. Dozens of these sites are visible on the south-facing shore of the Aughrus Peninsula and on the inner reaches of Ardbear Bay, south of Clifden, and there are between 90-100 small quays on the island of Inis Ní, associated with both the kelp and turf trade. Among some of the more unusual features are a set of rock-cut steps associated with Slyne Head and a ladies bathing house on the Errislanan Peninsula at Drinagh.



A notched (left) and worked (right) timber post, Lettergesh Beach

There are many references to shipwrecks on the coast and on Fahy Bay, on Ballynakill Harbour there is a superb example of a beached vessel, well on the way to becoming a most interest archaeological site in its own right, surviving as it does, as a large ballast mound of stone edged with iron ribs, and entombed in soft mud.

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Fish traps errislannen carna

Kelp grids carna

Intertidal walls and house faul

Rock cut steps slyne head and heathers

Stone row Ballynakill bay

Intertidal trackways/roads

18<sup>th</sup> century harbours/mansions

Cleggan bay and Bunowen

Wrecks ballast mounds

Castle quays Inishbofin doon castle Bodkin memorial Bunowen castle and ard castle

Holy wells and quays (inis Ní)

Cist and walls omey strand bunowen tidal stream

Prehistoric forest

Flint core

Wooden trackway/fencing lettergesh

Mud stone axe

Cross slab omey island

Saddle quern and kite brooch bone pen and bronze age pottery