

# Geolaíocht Chorca Dhuibhne cois bóthair

# The Roadside Geology of West Kerry



## Carraigeacha Sean-Ghaineamhchloiche Rua ag Inse Old Red Sandstone rocks at Inch

'Sean-Ghaineamhchloch Rua' isea an téarma a bhaineann le carraigeacha a leagadh síos ar thalamh le linn tréimhsí an Deavónaigh agus Charbónmhair is luaithe 416 go 350 milliún bliain ó shin. Bhí Éire mar chuid de mhórchríoch go raibh roinnt mhaith aibhneacha ag gabháil tríd aduaidh ó dheas agus isteach san fharraige. Bhí an aeráid te agus codanna don mhórchríoch ina bhfásaigh charraigeacha nó ghainmheacha. D'iompair na haibhneacha dríodair leo agus fágadh comhcheirtleán agus gainmhchloch ina ndiaidh agus, le linn tuilte tréimhsíúla ar na tuilemhánna cóngaracha fágadh gainmhchlocha cisealaithe dá dheasca. Tá dumhacha fásaigh le feiscint fós in iarthar Chuan Chill Mhuire. Is cuid den Shean-Ghaineamhchloch Rua na carraigeacha ar fad ag Inse.

'Old Red Sandstone' is a term applied to rocks largely deposited on land during the Devonian and earliest Carboniferous periods 416 to 350 million years ago. Ireland was part of a larger landmass through which numerous rivers flowed from north to south before they emptied into the sea. The climate was hot and parts of the landscape were rocky or sandy deserts. The rivers carried coarse sediments in their channels and these formed conglomerate and sandstone while periodic flooding of adjacent flood planes produced bedded sandstones. Some fossil desert sand dunes can be seen to the west at Kilmurry Bay. The rocks at Inch are part of the Old Red Sandstone.



Comhcheirtleán Loch Slait.  
Lough Slat Conglomerate.



Gaineamhchlocha rua de Chomhcheirtleán Inse le dromchlaí iomairíníneacha.  
Red sandstones of the Inch Conglomerate with rippled surfaces.



Comhcheirtleán Inse garbh le clastáin de charraigeacha meiteamorfacha.  
Coarse unit of the Inch Conglomerate with clasts of metamorphic rocks.

Beaconites, nianiontas tochailte ag éisc scamhógacha nó artrapóid i ngaineamh nó i láib neamhsraithithe.  
Beaconites, a trace fossil made by lungfishes or arthropods that burrowed through unconsolidated sands and muds



**Comhcheirtleán Inse:** Is carraig dhríodair neamhchoitianta í seo go bhfuil duirleoga des na carraigeacha meiteamorfacha gneiss agus schist atá idir 1.38 agus 3.34 billiún bliain d'aois sa chuid is gairbhe di. Tháinig na carraigeacha ársa chun solais ar dhromchla an Domhain idir 398 agus 435 milliún bliain ó shin agus cruthaíodh limistéar ard ó dheas. Sceith sé seo dríodair a d'iompair aibhneacha a chruthaigh feain ghláracha agus a d'fhás ó thuaidh. Tá uachaisí éagsúla i gcuid dóibh atá purógach gainmheach, ar a dtugtar Beaconites, déanta ag éisc scamhógacha nó artrapóid. Tá eachtraí a ndéandóirí caomhnaithe sna nianiontaisí ach níl na hainmhithe féin iontu. Is gaineamhchloiche rua iad an chuid is fearr des na carraigeacha seo le hiomairíní ar a ndromchla.

**Comhcheirtleán Loch Slait:** Sa carraig éagsúil seo tá puróga maolaithe de ghrianchloch bhainniúil agus seaspar rua inti. Tá neamh-chomhfhoirmeacht (bearna) inti a roinneann na Comhcheirtleán Loch Slait agus Inse. Cruthaíodh í seo nuair a creimíodh an sean-charraig ar feadh scaithimh agus a líonadh le carraig nua ina dhiaidh. Aithníodh don chéad uair í sa 19ú céad.

**The Inch Conglomerate:** This is a rare sedimentary rock type whose coarsest portion contains cobbles of metamorphic rocks gneiss and schist 1.38 to 3.34 billion years old. These ancient rocks were exposed at the Earth's surface between 398 and 435 million years ago and formed an elevated area to the south. Erosion produced sediment that was carried by rivers to form alluvial fans that grew northwards. Some pebbly and sandy units contain distinctive burrows called Beaconites produced by lungfish or arthropods. These trace fossils preserve the activity of their maker but not the animal itself. The finest units of this group of rocks are reddish sandstones with rare surface ripples.

**The Lough Slat Conglomerate:** This distinctive rock contains rounded pebbles of white quartz and red jasper. An unconformity (gap) separates the Inch and Lough Slat Conglomerates. This was produced when the older rock was eroded and followed by deposition of the younger. This example was first recognized in the 19th century.

### Carraigeacha Dríodair

Áirítear sa trí mhór-ghrúpa de charraigeacha tá na Bruthcharraigeacha a bhí leáite tráth (Eibhear agus Basalt), carraigeacha Meiteamorfacha athraithe le teas agus nó brú (Slinn agus Marmar), agus Carraigeacha Dríodair atá déanta as blúirí de bhruscar shean-charraigeacha creimithe. Rangáítear iad mar gharbh- (duirleoga), meán- (gaineamh), nó mín-ghráineach (siolta nó láib). I measc dríodair eile tá láib aoil deasctha i bhfarraigí thanaí – as seo a chruaítear aolchloch.

### Sedimentary Rocks

The major subdivisions of rocks are the Igneous rocks that were once molten (Granite & Basalt), the Metamorphic rocks that have undergone change through heat and/or pressure (Slate & Marble) and the Sedimentary rocks which are made up of fragments of eroded older rocks. They are classified as being coarse- (cobbles), medium- (sand), or fine-grained (silt or mud). Other sediments include lime mud precipitated in shallow seas – these form limestone.

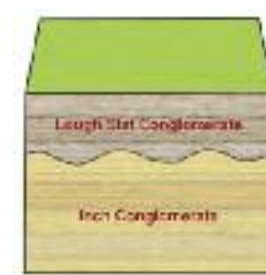


Comhcheirtleán amach anseo? Duirleoga i leaba abhann áitiúil; tá trastomhas níos mó ná 5cm acu agus iad déanta as gaineamhchloch rua, aolchloch liath agus samplaí neamhchoitianta de chomhcheirtleán. Tá an gaineamh forleagtha ar na duirleoga ábhairíníneacha.

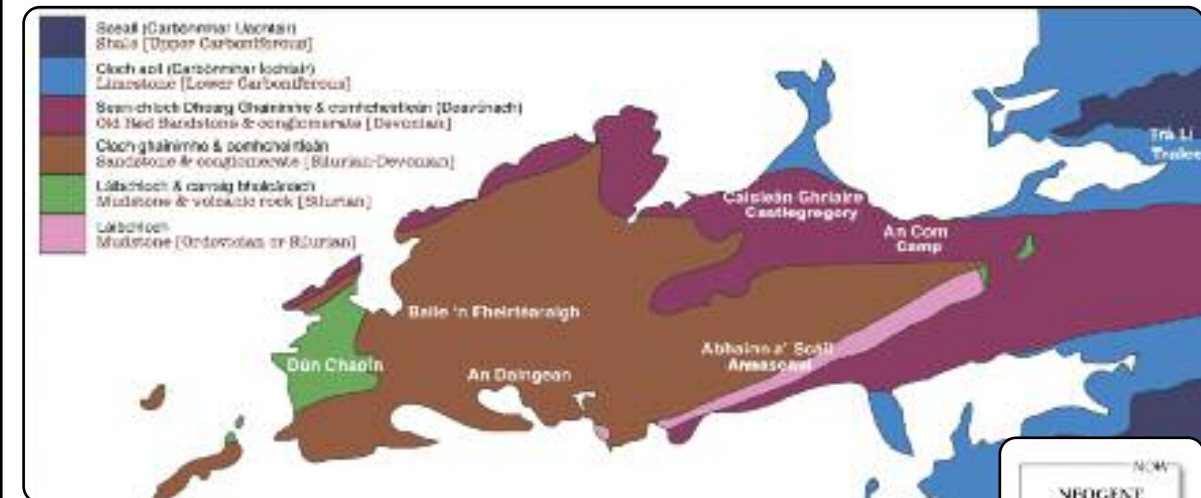
Conglomerates of the future? Cobbles in a local riverbed; they are greater than 5 cm in diameter and comprise red sandstone, grey limestone and rare examples of conglomerate. The sand overlying the cobbles is faintly rippled.



Comhcheirtleán Inse (ar dheis) forleagtha le Comhcheirtleán Loch Slait neamh-chomhfhoirmithe (ar chlé). Tá aird dírithe ar an neamh-chomhfhoirmeacht. The Inch Conglomerate (right) overlain by the unconformable Lough Slat Conglomerate (left). The unconformity is highlighted.



## Stair na Geolaíochta i gCorca Dhuibhne Geological History of West Kerry



Le linn thréimhse an Ordaivísigh agus tréimhse an tSiolúraigh, is laistea de mheánchiorcal an domhain a bhí Éire, faoi bhfarraige idir dhá mhór-roinn. Bhí pluda agus gaineamh á leagadh síos ann, gur deineadh díobh na carraigeacha atá le feiscint anois gairid d'Abhainn an Scaíl. Le linn an tSiolúraigh, bhí bolcáin ag pléascadh leis an laibhe agus leis an luathreach atá le fáil inniu ag Ceann Sratha. Théadh ainmhithe i ngreim i ndríodair láibe agus tá siad le feiscint inniu ann mar iontaisithe nó fosailí gairid do Dhún Chaoin agus ar Chnoc Chathair Chonraoi. Dríodar gainmhe a leagadh síos ina dhiaidh sin a chruthaigh na clocha gainmhe i n-aice leis an nDaingean agus ag Ceann Sléibhe.

Faoi thréimhse an Deavónaigh, bhí an fharraige dúnta ar fad, rud a chruthaigh mór-roinn mhór talún le fásaigh ann. Deineadh Sean-chloch Dhearg Ghainimhe den ngaineamh, mar atá i ndrom Shliabh Mis, agus den ndríodair garbh, deineadh na carraigeacha ar a dtugtar comhcheirtleán, atá le feiscint inniu ag Loch Slait agus ag Inse.

Ag tús an tréimhse Carbónmhair, bhí an talamh faoi bhun farraige thanaí trópaiceach agus bhí an coiréal agus an t-iasc sliogánach ag maireachtaint go ráthmhar ann. Tá a rian súd caomhnaithe sna clocha aoil sna Machairí.

Le dhá mhíliún bliain anuas go dtí deich míle bliain ó shin, bhíodh comanna á gcruthú ar thaobh na gcnoc ag an oighear; is minic a bhíonn locha iontu inniu. Ritheadh sruth an oighir le fánaidh trí na gleannta, agus de réir mar a leá sé, leagadh síos cré na mbollán le mórán saghsanna cloch tríd.

During the Ordovician and Silurian Ireland was south of the equator and under an ocean between two continents. Mud and sand deposited into it eventually became the rocks seen near Annascaul. In the Silurian, volcanic islands erupted lavas and ash now found at Clogher Head. Muddy sediments trapped animals today preserved as fossils near Dún Chaoin and on Caherconree Mountain. Younger, sandy sediments produced the sandstones near An Daingean and Sleá Head.

By the Devonian, the ocean had disappeared, forming a large continent with deserts. The sand formed Old Red Sandstone, the backbone of the Slieve Mish Mountains, while coarser sediments produced rocks called conglomerates, seen now at Lough Slat and at Inch.

At the beginning of the Carboniferous period the land was flooded by shallow tropical seas where shellfish and corals thrived. These are preserved in the limestones on the Magharees.

During the last 2 million years to 10,000 years ago, ice on mountainsides formed depressions called corries, many of which now contain lakes. Glaciers moved downslope along river valleys, and when they melted boulder clay containing many different rock types was deposited.



Carraigeacha claonta de Chomhcheirtleán Inse agus Gaineamhchloch Chill Mhuire (ar dheis) ina suí ar barr ghaineamhchlocha níos críona (ar chlé). Greanadh adhmaid ón 19ú céad ag George Victor Du Noyer, geolaí le Suirbhéireacht Gheolaíochta Éireann (le cead Shuirbhéireacht Gheolaíochta Éireann).

Tilted rocks of Inch Conglomerate and Kilmurry Sandstone (right) sitting on top of older sandstones (left). 19th century woodcut by George Victor Du Noyer, geologist with the Geological Survey of Ireland (courtesy Geological Survey of Ireland)

