ogham
stones

Our Ancient Landscapes:
Ogham Stones in Ireland

Author details: Nora White graduated from Maynooth University in 2001 with a BA in History and Early Irish. She edited a group of early Irish texts for her PhD at the same University. From 2010 to 2015 she held the position of Principal Investigator on the Ogham in 3D project (https://ogham.celt.dias.ie), funded (2012-2015) by the Department of Culture, Heritage and the Gaeltacht in collaboration with the National Monuments Service and the Discovery Programme. Since 2014, she has co-managed the Knockboy Church Conservation Project and she has been on the Heritage Council's Heritage in Schools panel since 2018. She returned to Maynooth University and the Department of Early Irish in 2019 as a postdoctoral researcher on the Chronologicon Hibernicum project. She is currently a postdoctoral researcher in the same department on the new OG(H)AM project, jointly funded by the Arts and Humanities Research Council and the Irish Research Council (UK-Ireland Collaboration in the Digital Humanities Scheme).

Cover image: This irregular shaped rock outcrop at Knockbrack, near Castlemaine, Co. Kerry, has extensive prehistoric rock art on the upper and eastern faces and an ogham inscription on a natural ridge. (Ken Williams).

This page and inside back cover image: The collection of ogham stones from Cork and Waterford at University College Cork is referred to as the 'Stone corridor'. (Ken Williams).

Back cover image: The ogham inscription at Dromatouk, near Kenmare, Co. Kerry is carved on to the middle stone of this late prehistoric stone alignment. (Ken Williams).

Our Ancient Landscapes:
Ogham Stones in Ireland

CONTENTS

This stone from Painestown, Co. Meath, is a rare example as the ogham inscription is on the face of the stone rather than on the edge. It is 2.24m in height and is now in the National Museum of Ireland collection.

(National Monuments Service, © National Museum of Ireland)

What are ogham stones?

Before people in Ireland starting writing in manuscripts made of vellum they wrote on other materials, primarily stone, in a writing system called ogam (Old Irish spelling, pronounced ['oɣəm], with the sound g as in Spanish) or ogham (Modern Irish spelling, pronounced ['oːm]). This writing system or script was created for an early form of the Irish language and our earliest ogham inscriptions on stone are approximately dated on linguistic grounds to between the 4th and the 7th century AD. Over 400 known examples of ogham stones and fragments of various shapes and sizes have survived, each with its own unique biography or story. Because of these surviving inscriptions we know something about how the Irish language looked centuries before people started to write in manuscripts in Latin and Irish using the Latin insular script (a form of the Roman alphabet that we still use today).

Ogham is highly unusual among world writing systems. It consists solely of parallel lines in groups of 1-5, their value depending on their position relative to a stemline. Unlike later inscriptions in the Latin script, which were carved on the face of the stone, ogham inscriptions were usually carved vertically along the natural angle or edge of the stone, which served as a natural stemline. Ogham generally reads upwards, starting at the bottom left-hand side of one of the faces, across the top and down the right-hand side (up-top-down), depending on the length of the inscription. However, there is a good deal of variation in this pattern, such as reading upward on both edges; up-top-down in reverse (up right-hand side and down left) and only very occasionally on the face of the stone (e.g., Painestown, Co. Meath, pictured on page 1). The manner in which the script wraps around the edge of the stone makes it a uniquely three-dimensional script.

The ogham inscription at Dromatouk, near Kenmare, Co. Kerry is carved on to the middle stone of this late prehistoric stone alignment. (Ken Williams)

Where are ogham stones found?

Ogham stones are found in most counties in Ireland, but occur in highest numbers in the south-west, in counties Kerry, Cork and Waterford. Kerry alone has approximately a third of the total and the Dingle peninsula has the highest concentration with approximately 60 ogham stones originating in this relatively small area. Ogham stones are also found in Britain, primarily in areas of post-Roman Irish colonisation, in Wales, Devon and Cornwall in the south-east, Scotland and the Isle of Man. Interestingly, most of the Welsh inscriptions are bilingual, in Latin (script and language) on the face of the stone, and in ogham (and the Irish language) on the edge. One of the rare examples with both scripts in Ireland is from Killeen Cormac, Colbinstown, Co. Kildare and is on display in the National Museum of Ireland.

A stone with text in both ogham and Latin script from Killeen Cormac, Colbinstown, Co. Kildare. Although some doubt has been expressed about the authenticity of the Latin text, most experts believe it to be genuine. This is now on display in the National Museum of Ireland, Dublin. It measures 1.57m in height.

(Photograph National Monuments Service, © National Museum of Ireland)

Distribution map of
ogham stones in
Ireland and Britain.

Site types and archaeological context

Ogham stones occur at a wide variety of site types and archaeological contexts from individual prehistoric standing stones, stone pairs, rows and a stone circle (where the ogham inscriptions were later additions to prehistoric monuments) to mounds, enclosures, ringforts, promontory forts, souterrains and ecclesiastical sites of the early medieval period. However, as pointed out by Fionnbarr Moore, most are found at or near ecclesiastical or early church sites and in souterrains. Although

This probable prehistoric standing stone overlooks Ballycrovane Harbour at Faunkill and the Woods, Co. Cork. The ogham inscription is a likely later addition. At 4.70m in height this is the tallest known ogham stone from Ireland.

some have been moved from their original context, many ogham stones appear to be associated with early church sites, which fits well with the linguistic dating of the inscriptions to the early medieval period (4th to the 7th century AD). Indeed, some are also cross-inscribed but it can be difficult to say whether or not the inscription and the cross are contemporary. A high percentage (c.40%) of ogham stones are found re-used later as building material, mainly in souterrains and particularly in Co. Cork. In these cases, the original site is often difficult or impossible to identify, although it is

7

Ogham inscription on one of a stone pair in the townland of Rathglass, near Tullow, Co. Carlow.

generally accepted that the ogham stones were not moved very far from their original locations. With regard to the function of ogham stones, it is assumed that they marked burials in at least some cases (later medieval Irish sagas occasionally mention ogham stones being used to mark burials of heroes), but we do not have direct evidence for this, partly because of the removal of stones from their original context but perhaps also due to a lack of modern archaeological excavation at ogham sites. Quite a few are found at or near parish and townland boundaries, possibly following earlier boundaries, and these ogham stones may have been used as boundary markers or indicators of land ownership or control by a particular kin group. We also have references in later law tracts, which suggest that ogham stones had a legal function in disputes over land in that they were considered proof of entitlement. It is possible that ancestral burial grounds (and subsequently early church sites) were positioned on or near kin boundaries and that ogham stones containing the names of the ancestors performed the dual function of commemoration and marking (perhaps even protecting) the kin land.

These ogham stones were re-cycled as building material in a souterrain or underground chamber in the townland of Drumlohan, Co. Waterford.

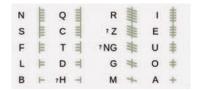(©Photographic Archive, National Monuments Service, Government of Ireland)

The Church Island ogham stone (Co. Kerry, now in the Cork Public Museum) is a rare, clear example of an ogham inscription carved over an earlier cross design. It is 1.49m in height.

(© Photographic Archive, National Monuments Service, Government of Ireland)
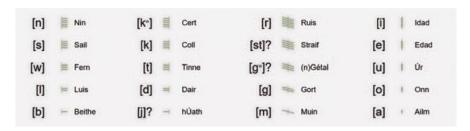
Ogham alphabet and letter names

The ogham script originally consisted of 20 characters representing the individual sounds of a very early form of Irish, known as 'primitive' Irish. These 20 characters are divided into four groups. Two of the groups are distinguished by the orientation of 1-5 horizontal lines or scores relative to the vertical stemline, the third group crosses the stemline diagonally and the fourth group consists of one to five scores or notches on the stemline representing the vowels. How do we know all of this? Knowledge of ogham was never really lost as the script continued after the 7th century and evolved in the manuscript tradition. In the manuscript sources, ogham is written left to right in two dimensions on a horizontal stemline and a key to ogham is supplied telling us that one score to the right of the stemline (below the line) is equivalent to a B, two scores to an L, 3 to an F and so on. Moreover, each of the ogham characters or letters also had a name that was a meaningful word in Irish. For example, *beithe* 'birch tree', *dair* 'oak', *coll* 'hazel', which is where the tree-alphabet label comes from, but scholars like Prof. Damian McManus, who have studied early texts on these letter names, have concluded that only six of the twenty were originally names of trees, as others like *muin* 'neck', *gort* 'field' are quite clearly not trees. We cannot say for sure how old the letter names actually are but what is clear is that by the 8th century the meaning of some of these characters and the original sound they represented were already lost. In fact, three of the characters rarely occur on

Ogham alphabet key from later manuscript sources.

Ogham letter-names from manuscript sources.

ogham stones, which suggests that the sounds they represent were already falling out of use at this early stage. So, while some of the letters and their names have survived more or less intact, others were either misinterpreted or lost and replaced by artificial forms based on Latin (H, NG and Z). The fact that many of the letter names which did survive into later stages of the language were names of trees, undoubtedly encouraged the compilers of the alphabet key to attach names of trees to the rest of the letter names, a number of which were no longer understood. Fortunately, our earliest and least contaminated source on the form and meaning of the letter names (*Bríatharogaim* 'word ogham') helps us to establish many, though unfortunately not all, of the original values and meanings. Along with loss or changes to the original set of ogham characters, there were also some additions. A fifth group of five 'supplementary characters' is included in the manuscript tradition on ogham (e.g., the character for P as there was originally no P in Irish). However, only one of these occurs frequently in the inscriptions on stone and appears as two diagonal scores crossing each other on the stemline in the shape of an X. This character is used with two values: the first a consonant (usually transliterated K and pronounced /k/) and the second the vowel (e), although it is only found used as a vowel in the relatively recent inscriptions. The fact that this character occurs in some of our oldest inscriptions also suggests that the language had already developed and changed since the creation of the script.

Contents of ogham inscriptions

Ogham inscriptions are generally short and mainly consist of personal names in the genitive (possessive) case, meaning that another word is to be understood before the name, such as 'stone (of ...)' or 'name (of …)' or perhaps 'territory (of ...). Frequently the father's name and even the name of the kindred or an ancestor figure is added. There are a number of formula words used, the most frequent being MAQI, 'son' (Modern Irish *mac*). Tribal or kin group affiliation is expressed by AVI ('grandson, remote descendant' Modern Irish *Ó*) or by MUCOI ('descendant, kindred'), followed by the name of the eponymous ancestor. The term MUCOI doesn't survive into the modern language as it was replaced by a number of alternatives (*Corcu*, *Dál*, e.g. *Corca Dhuibhne*, *Dál gCais*) and suffixes (-*rige*, e.g. *Cíarraige*) in the early medieval period. They did not have surnames in this period and adding the father's or grandfather's name was a way of more clearly identifying the person commemorated. In time this formula became fossilised resulting in the Irish surnames that survive today like MacMahon, O'Neill, etc. The words NIOTTA meaning 'nephew, sister's son' and INIGENA meaning 'daughter' are rarely attested and women are not commemorated on Irish ogham stones, although there are a couple of examples in Wales (AVITTORIGES, recognisable as female by the use of INIGENA 'daughter' and VELVORIA, whom the Latin version calls *filia* 'daughter'). Other less frequent formula words include ANM 'name/inscription', KOI 'here (lies)?' (corresponding to HIC IACIT on British inscriptions) and CELI 'companion, client'. Very occasionally extra information is supplied, for example QRIMITIR 'priest' on the Arraglen stone (Mount Brandon, Co. Kerry) and VELITAS 'poet' on an ogham stone further east in Crag, Co. Kerry.

Only very rarely can names on ogham stones be identified with historically known individuals. An inscription on a stone from Painestown (Co. Meath) mentions *Mac-Caírthinn*, a member of the Leinster dynasty of the *Uí Enechglais*. This may be the king of Leinster and Tara called *Mac-Caírthinn* who is known from an early genealogical poem. According to the Annals of Ulster, a *Mac-Caírthinn* son of *Cóelub* died in a battle at *Feimen* in 446 AD. It is probable, but not entirely certain that these historical sources refer to the same person, and that the person can be identified with the individual commemorated on the ogham stone. However, many of the kin groups or dynasties can be confidently identified. Three of the seven ogham stones at Coolmagort (near the Gap of Dunloe), Co. Kerry, commemorate members of the kin group MUCOI TOICACI ('descendant of *Toicacas*'). This name has been equated with the population group known as *Tóecraige*. Three of the names of the descendants of *Toicacas*, occurring on two of the stones at Coolmagort, also appear 'at the head of the Rawlinson B.502 genealogy for the Glasraige'. This is also an example of where the word MUCOI followed by an ancestor name in ogham is later found in manuscript sources in a changed format where, instead of the use of MUCOI, the suffix (-*rige*) has been added to the ancestor name to form a kin group name: *Tóecraige*. This indicates that the kin group still existed but that their name had evolved. Another example of this development is found in the modern barony name Corca Dhuibhne in west Kerry where we find examples of inscriptions containing the kin group name MUCOI DOVINIAS 'descendants of (goddess) *Duibne*', which is the earlier equivalent of Corca Dhuibhne.

These ogham stones at Coolmagort, Co. Kerry, were originally discovered in a souterrain in the adjoining Dunloe Castle demesne. In 1940 the ogham stones were erected beside a nearby public roadway.

(©Photographic Archive, National Monuments Service, Government of Ireland)

A 3D model of a cross-inscribed ogham stone, which also commemorates a priest, from Arraglen, Mount Brandon, Co. Kerry. This stone measures 1.67m above ground level and is located on the Mount Brandon pilgrimage route.
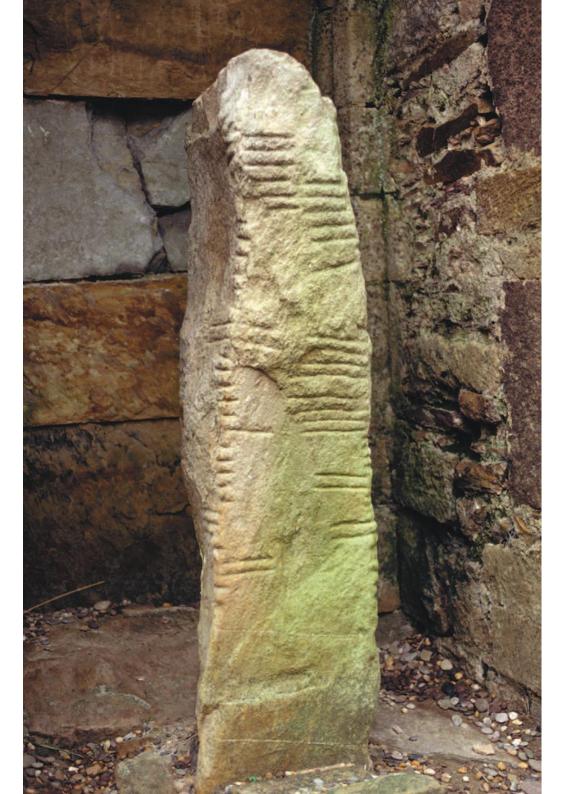
Dating ogham stones

Ogham-inscribed stones are difficult to date. There has been little or no modern excavation in cases where an ogham stone is likely to be in its original context, which could perhaps give us some dates for its inscription. As noted above, very few names in inscriptions have been even tentatively identified with specific people in historical sources. However, the inscribed stones can be approximately dated using linguistic information. Irish in the ogham script is the earliest attested representative of Goidelic or Gaelic, one of the four known sub-branches of the Celtic branch of the Indo-European language family. The other branches are Celtiberian, Gaulish and British (or Brythonic). Ogham inscriptions preserve the profound changes that the language underwent from the 5th to 7th century and it is these developments that enable us to roughly order the surviving inscriptions chronologically. One of these developments (loss of final syllables) can be illustrated using an example of a personal name found in the inscriptions from consecutive stages: LUGUDECCAS (Ardmore, Co. Waterford); LUGUDECA (Kilgrovan, Co, Waterford) and LUGUDEC (Kilmannin, Co. Mayo), which resulted in *Luigdech* (genitive of *Lugaid*) by the 8th century.

This ogham stone from Kilmannin, near Ballyhaunis, Co. Mayo was found built into the wall of a church and is now in the National Museum of Ireland. It has two inscriptions placed on all four angles and is 1.22m in height.

(Photograph National Monuments Service, © National Museum of Ireland)

Ogham on materials other than stone

In addition to ogham inscriptions on stone, we also have a relatively small number of portable, usually personal, everyday objects of various materials with ogham inscriptions, such as an amber bead from Co. Clare (now in the British Museum) and a knife handle made of bone from Orkney in Scotland. We also have examples on metal, generally from a period a few centuries later than the ogham stones, such as on the back of the Ballyspellan (Co. Kilkenny) brooch and on the rim of the Kilgulbin East (Co. Clare) hanging bowl (both in the National Museum of Ireland). Some of these objects have unintelligible inscriptions (possibly cryptic or initials of words meaningful to the owner) but the ones we can read generally also contain names, presumably the owners of the objects.

Uses of ogham over time

The establishment of Christianity in Ireland brought with it the Latin script written across a flat page. Nevertheless, ogham was never entirely abandoned. The post-7th century phases of the script have been little studied, but their geographical and functional diversity (see below on portable ogham-inscribed objects) indicates the script retained its use-value and appeal, particularly among lay-people. Professor Katherine Forsyth (Glasgow University) has noted that, although ogham probably originated in Ireland, it took root in northern Britain at a very early date and continued to flourish there among both Gaels and Picts (in modern Scotland) long after it had ceased to be used on memorial stones in Ireland. It remained, sometimes in fantastical forms, in the curriculum of formal bardic education in both Ireland and Scotland until the later Middle Ages. The alphabet's formal properties uniquely suit it to cryptography, a feature which comes to light in its final phases. Previous assumptions that practical knowledge of the script had disappeared by the early modern period have been overturned by recent discoveries in medical manuscripts and other sources, including, astonishingly, a newly discovered Irish manuscript in Scotland dating to 1849 and containing medical charms written entirely in ogham (the Minchin MS). This broader use of ogham, geographically and chronologically, is the subject of a new collaborative research project (OG(H)AM) jointly funded by the Irish Research Council and the Arts and Humanities Research Council (UK), It will involve researchers from both Maynooth University and Glasgow University utilising digital tools and methods in the recording and analysis of ogham.

Research on ogham

The first ogham stone recorded in Ireland was at Emlagh East on the Dingle Peninsula. An account of it is included in a manuscript note by the Welsh antiquarian Edward Lhwyd dating to about 1702-1707. Modern research into ogham was set in motion in 1785 when Charles Vallancey's report on the Mount Callan stone in Co. Clare was published, although this inscription is now generally regarded not to belong to the early monumental phase of ogham. Antiquarian interest in ogham grew in the 19th century and ogham stones began to be discovered in significant numbers. The interpretation of ogham inscriptions was greatly advanced by the recognition of bilingual stones in Wales by Professor John Rhys towards the end of the 19th century. In addition to Prof. Rhys, the main antiquarians publishing on ogham included Richard Brash, particularly *The Ogam Inscribed Monuments of the Gaedhil in the British Isles* (1879); Samuel Ferguson, in particular *Ogham Inscriptions in Ireland, Wales and Scotland* (1887), as well as John Windele and Rev. Charles Graves. The second half of the 19th century also saw the advancement of recording techniques for carved stone in general and photographs as well as scaled drawings made from full-size rubbings or tracings began to appear. Various casting methods also emerged. Samuel Ferguson developed the 'paper squeeze' - a cast made by building up layers of wet paper such as blotting paper. The work of these pioneers in the field is still valuable as some of the stones recorded in the past are now lost or their inscriptions are weathered or damaged. Some, such as Brash, gave detailed descriptions of the archaeological context, which without their accounts would be irrecoverable today.

Cataloguing of inscriptions began in earnest in the 20th century. R.A.S. Macalister published his *Studies in Irish Epigraphy* in three volumes around the turn of the century. He followed this with his *Corpus Inscriptionum Insularum Celticarum* in two volumes (1945 and 1949), which remains invaluable today. Nash-Williams focused on the Welsh inscriptions in his *Early Christian Monuments of Wales* in 1950. The 20th century also saw an advancement in interpretations and contextualization. Eoin MacNeill (Professor of Early Irish History in University College Dublin) was instrumental in furthering the study of the language and historical information contained in the ogham inscriptions. In 1950 Kenneth Jackson published his paper entitled 'Notes on the Ogham inscriptions of Southern Britain', which included a relative chronology for the development of Irish as evidenced in the British inscriptions from the 5th to 7th centuries. In 1991 Damian McManus (Professor of Early Irish, Trinity College Dublin) published *A Guide to Ogam*, a hugely important contribution to the study of the language of ogham inscriptions, in which he provided an approximate relative chronology for the inscriptions found in Ireland, based on linguistic developments apparent in the surviving inscriptions. Although imprecise and approximate by nature, this chronology is generally accepted and extremely useful as a rough guide.

Digital recording

Inspired by the work of Irish Script on Screen (ISOS: https://www.isos.dias.ie/) on digitising manuscript texts, the idea emerged at the Dublin Institute for Advanced Studies (DIAS) around 2008 to do something similar with texts on ogham stones. However, the layout of the earliest ogham inscriptions on stone is very different to that of manuscript text in the Latin alphabet. While manuscript text is two-dimensional and horizontal (reading L-R), ogham carved on stone is generally three-dimensional, wrapping around the edge/angle of the stone, and vertical – generally reading upwards. This makes 3d recording and visualisation particularly suitable and useful for ogham stones. There are other benefits to using 3d technology, such as the ability to strip away the texture/colour of the stone, which can often distract the eye from the text and the ability to digitally reconstruct broken ogham stones. Optimal lighting conditions (particularly oblique lighting) can help to read inscriptions in the field but with digital replicas this can be re-created artificially. Another advantage of digital recording techniques is that, unlike earlier methods, they are non-contact and there is no possibility of any damage to the stone in the process. So, it was decided to record as many as possible of our surviving ogham stones in 3d. Initially, this was done using laser scanning (2010-2012), followed by structured light scanning (2013-2015) and in more recent years, using photogrammetry (since 2016). Photogrammetry is a photography-based method (using multiple overlapping images, aligned by specialist software to create a 3d model) which has the advantage of being generally cheaper and easier to learn. Nevertheless, the better the equipment and the more experienced one is (in photogrammetry or photography), generally the better the resulting 3d models.

The Ogham in 3D pilot project was a collaboration between DIAS, the Discovery Programme (experts in archaeological 3d

recording and visualisation) and the National Monuments Service who funded the project from 2012-2015. Priority was given to recording and digitising ogham stones in state care or with a preservation order around the country and the results were made available via a dedicated website (https://ogham. celt.dias.ie). Making digital replicas available online facilitates virtual access for research, for teaching and for public engagement. The project website launched in 2013 as a work in progress and new records are added when recorded. As of 2021 there are 163 ogham stone digital replicas available on the website. The digital corpus will be expanded in the coming years as part of a new UK-Ireland collaborative project to include ogham stones outside of Ireland and ogham inscriptions on other materials.

Of course, it is not enough to just make 3d replicas accessible. From the outset, the aim was to create a multidisciplinary

resource, bringing together information from the various disciplines involved (including historical linguistics, archaeology, onomastics, history, epigraphy and Celtic Studies). Descriptions of the broader (archaeological) context, the monument/object (ogham stone) and the text (including an edition and translation where possible) are all encoded in xml which allows for detailed searches of the data.

The use of photogrammetry as an accessible alternative to laser/structured light scanning allowed us to initiate a community engagement and co-creation project in west Kerry (*Corca Dhuibhne 3D*) in 2016. Volunteers on the project initially focused on assisting in the progress of the work of the *Ogham in 3D* project but soon starting surveying a wide variety of local monument types and have developed their own website www.corcadhuibhne3d.ie/.
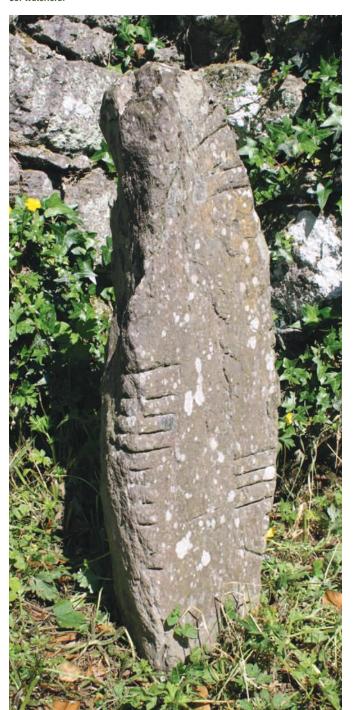
Weathering and erosion

Unfortunately, many ogham stones are now fragmentary with inscriptions partially or wholly illegible as the stones have been eroded by weathering, covered by lichen or damaged by human activity over the years. Loss of text is often due to the location of the inscriptions on the vulnerable edges of the stones, which were used in the past as scratching posts for cattle, and also to the breaking up of ogham stones for re-use in souterrains or other buildings. Those re-used in souterrains are at least less weathered and less lichen covered than those left in the landscape. In some extreme cases, not just the text but the whole stone has been lost to coastal erosion. Three fragments of an ogham stone (https://ogham.celt.dias.ie/46._Houseland) from St. Brecaun's church and graveyard in Co. Wexford luckily survived despite the loss of much of the coastal site to the sea. The first and largest fragment was discovered in 1845 'in the course of some geological researches on the promontory of Hook'. The second fragment (most of the top) was discovered almost 100 years later 'near the church' and the third small fragment was recovered in a 1987 archaeological excavation.

A 3D model of a broken ogham stone (fragments discovered 100 years apart) from St. Brecaun's church, Hook Peninsula, Co. Wexford.

(The Discovery Programme)

A free-standing ogham stone located inside the medieval parish church of Seskinan at Knockboy, Co. Waterford.
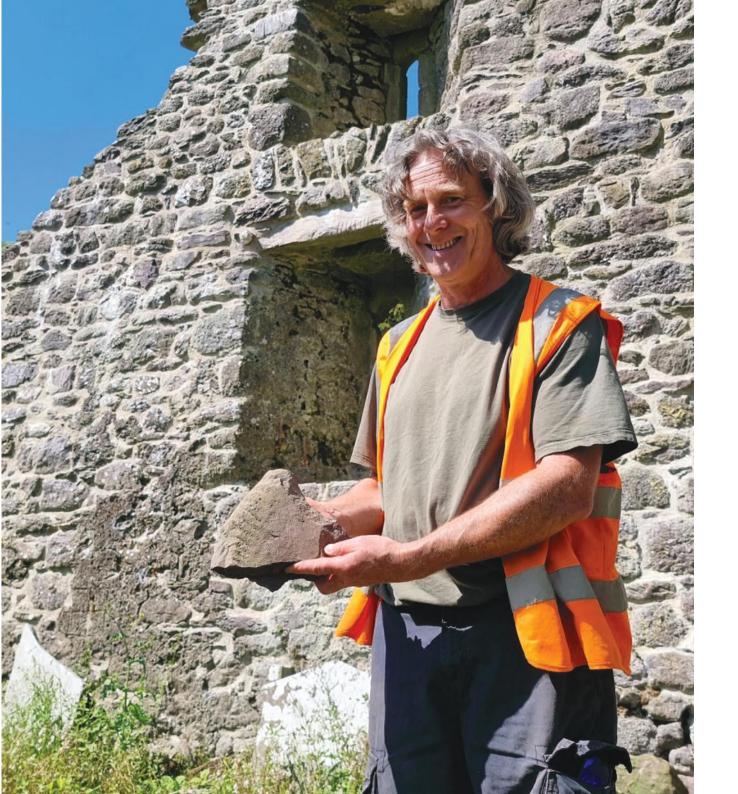
Protecting ogham stones

As part of our archaeological heritage (as well as cultural heritage), ogham stones are protected under the National Monuments Act 1930-2014. Under this legislation, the National Monuments Service (NMS) established the Record of Monuments and Places (RMP) which provides details of Ireland's legally protected archaeological resource. Details can be found on the online database which provides geographical locations and information on listed monuments at www.archaeology.ie.

Previously unrecorded ogham stones and fragments are still being found. For example, a fragment of an ogham stone was discovered in 2021 by a stonemason carrying out conservation work funded by the Heritage Council at a multiple ogham site in west Waterford. The medieval parish church of Seskinan in the townland of Knockboy is long known to have been constructed using re-cycled ogham stones and fragments (mainly lintels over the windows and door) but this new fragment brings the total number found at the site to nine: seven used as building material, one free-standing in the church and another moved from the site and long lost (https://ogham.celt.dias.ie/Knockboy). As with all archaeological finds, any new discoveries of ogham stones/fragments should be reported to the NMS (contact details available at www.archaeology.ie).

Stone mason Tom Pollard holding the ogham fragment he discovered in a wall while carrying out conservation work on the medieval parish church at Knockboy, Co. Waterford (Abarta Heritage).

Engaging with primary school children around ogham through the Heritage Council's Heritage in Schools programme (www.heritageinschools.ie). The use of a 3D printer on digital models makes a modern connection with ogham stones.
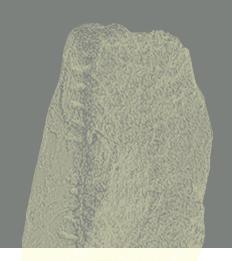
The 'Ogham Stone Code'

- If you are visiting ogham stones in privately owned land, remember to ask the landowner's permission before entering

- Ensure that there are no visible dangers on the land before you enter and make sure to close all gates behind you. Beware of farm animals and keep dogs on a leash

- Do not stand or sit on any carved stone

- Do not remove any moss or other surface covering as this will damage the stone surface

- Do not use chemicals or any sharp implements or abrasive materials to clean the rock surface

- Do not use chalk or paint to highlight carvings

- Examine the stone surface looking for visible motifs, a torch may help with this

- Leave the stone as you find it

- If you are a landowner or visitor, all archaeological monuments are protected under the National Monuments Act 1930-2014

- Report all new finds to the National Monuments Service to ensure their protection (www.archaeology.ie)

Other things you can do

- Please do take pictures, film or make sketches

- Survey the surrounding landscape to assess the wider location of the stones, ogham stones are often in important and interesting locations, e.g., routeways or in early church sites

- Check out online sources to help understand inscriptions

- Try to find a guide, a specialist or a local person that knows the area

- Visit local museums

- Teach your children and other young people about ogham stones!

Where can I visit ogham stones?

Information on visiting ogham stones can be found on the Historic Environment Viewer on www.archaeology.ie (https://maps.archaeology.ie/HistoricEnvironment/). This allows users to search for individual classes of monuments, such as ogham stones, by townland and county. However, not all ogham stones are accessible. They are frequently located on private land and the landowner's permission should be sought in advance. In some cases, ogham stones are found in quite remote and difficult to access locations (for example, the Arraglen ogham in Co. Kerry is high up on a shoulder of Mount Brandon and should only be visited in good weather and ideally with a local guide). Ogham stones at church sites are generally more accessible and sites like Kilmalkedar in Co. Kerry or Ardmore in Co. Waterford are ideal for visiting ogham stones 'in the wild'. Ogham stones are also on display in many of our museums: the National Museum of Ireland (Kildare Street, Dublin) has two on display; some county museums also have ogham stones (e.g., Kerry and Louth) as well as museums like the Cork Public Museum and Músaem Chorca Dhuibhne (Ballyferriter, west Kerry) and Heritage Centres such as at Mount Melleray (Co. Waterford) and Saint Kilian's Heritage Centre in Mullagh (Co. Cavan). The largest collection of ogham stones on public display is at University College Cork where there are 28 stones, 27 from Co. Cork and one from Co. Waterford.

Online resources

The website and Historic Environment Viewer of the NMS:
www.archaeology.ie or
https://maps.archaeology.ie/HistoricEnvironment/

The Ogham in 3D project:
https://ogham.celt.dias.ie

The Corca Dhuibhne 3D project:
www.corcadhuibhne3d.ie/

Celtic Inscribed Stones Project:
www.ucl.ac.uk/archaeology/cisp/database/

Gippert, J. (2001): TITUS OGAMICA. (3rd edition) University of Frankfurt, online database:
titus.fkidg1.uni-frankfurt.de/ogam/frame

Sketchfab, a platform for viewing 3d models, hosts a number of ogham models created by various individuals and groups, most notably:

https://sketchfab.com/oghamin3d/models

https://sketchfab.com/discoveryprogramme/collections/ogham-stones

https://sketchfab.com/CoKerry3D/collections/corca-dhuibhne-3d

https://sketchfab.com/HistoricEnvironmentScotland/collections

https://sketchfab.com/manxnationalheritage/collections/manx-crosses

Ogham in Britain:
www.babelstone.co.uk/Ogham/

Printed sources

Bennett, I. and Uí Shíthigh B. (1995): *Ogham Stones of the Dingle Peninsula*. Ballyferriter.

Brash, R. R. (1879): *The Ogam Inscribed Monuments of the Gaedhil in the British Isles*. London.

Cuppage, J. et al. (1986): *Archaeological Survey of the Dingle peninsula*. Ballyferriter.

Edwards, N. (2007): *A Corpus of Early Medieval Inscribed Stones and Stone Sculpture in Wales, Vol. II South-West Wales*. University of Wales Press.

Ferguson, S. (1887): *Ogham Inscriptions in Ireland, Wales and Scotland*. Edinburgh.

Forsyth, K. (forthcoming 2021): 'Feelin' groovy: Interdisciplinary perspectives on the origin, nature, and uses of the ogham script', in A.L. Jones and P. Lynch (eds), *Proceedings of the XVI International Congress of Celtic Studies, Bangor, 2019*, Bangor.

Harvey, A. (1987): 'Early literacy in Ireland: the evidence from Ogam', *Cambridge Medieval Celtic Studies* 14, pp 1-15.

Harvey, A. (2017): 'Languages and Literacy in Mid-First-Millennium Ireland: New Questions to Some Old Answers', in: N. Edwards, M. Ní Mhaonaigh and R. Flechner (eds), *Transforming Landscapes of Belief in the Early Medieval Insular World and Beyond. Converting the Isles II*, Turnhout, 47–63.

Macalister, R.A.S. (1945, 1949): *Corpus inscriptionum insularum Celticarum*. 2 Vols.

MacNeill, E. (1909): 'Notes on the distribution, history, grammar, and import of the Irish Ogham inscriptions', *Proceedings of the Royal Irish Academy* 27, pp 329-370.

Mahon, W. (1990): 'Glasraige, Tóecraige, and Araid: evidence from Ogam', *Proceedings of the Harvard Celtic Colloquium* 8, pp 11–30.

McManus, D. (1988): 'Irish letter-names and their keenings', *Ériu* 39, pp 127-68.

McManus, D. (1991): *A guide to ogam*. Maynooth Monographs 4.

McManus, D. (2004): *Ogam Stones at University College Cork*, Cork.

Moore, F. (1998): 'Munster Ogham stones: siting, context and function' in M.A. Monk and J. Sheehan (eds), *Early medieval Munster: archaeology, history and society*. Cork, pp 23-32.

Okasha, E. (1993): *Corpus of Early Christian Inscribed Stones of South-west Britain*. Leicester.

O'Sullivan, A. and Sheehan, J. (1996): *The Iveragh Peninsula: An Archaeological Survey of South Kerry*. Cork.

Sims-Williams, P. (2003): *The Celtic inscriptions of Britain: phonology and chronology, c. 400–1200*. Proceedings of the Philological Society, 37. Oxford and Boston.

Swift, C. (1997): *Ogam Stones and the Earliest Irish Christians*. Maynooth.

Thomas, C. (1994): *And shall these mute stones speak? Post-Roman inscriptions in Western Britain*, Cardiff.

White, N. and Bennett, I. (2020): 'Ogham in 3D and community participation' in C. Baker (ed.), Partnership & *Participation: Community Archaeology in Ireland*, Wordwell, Dublin, 39-48.

The collection of ogham stones from Cork and a single one from Waterford at University College Cork is referred to as the 'Stone corridor'.

(Ken Williams)