

Hermann Geissel

Bumps in the Fields *and* Crumbling Walls

Practical Archaeology for Sunday Afternoons

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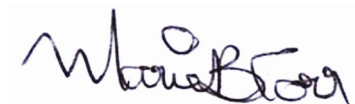
INTRODUCTION BY MAYOR MARIE CORR



From abbeys to wedge tombs, the long and varied history of Ireland has left us with an abundance of archaeological monuments.

This book provides students, Sunday walkers, local historians, and budding amateur archaeologists with the opportunity to acquaint themselves with the history of the landscape around us. We are indebted to Hermann Geissel for the effort he has put into researching and writing this book. The scholarly yet clear manner in which it is presented and illustrated makes the practical study of our archaeological heritage accessible to everyone, and it is my hope that it will be used by people of all ages.

South Dublin County Council through its library service is delighted to support the study of our history and heritage by publishing this book.



Marie Corr

Mayor of South Dublin County

September 2008

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August 2008

Hermann Geissel

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INTRODUCTION

Ireland boasts thousands of field monuments, probably more per square kilometre than any other country in Europe. There are good reasons for this. Not only has this country had a long, rich and varied past, but the belief systems of the older generations led them to treat these monuments with respect and often prevented them from interfering.

In recent times many field monuments have been destroyed in a spate of land improvements and development. This has been made easy through the ready availability and affordability of heavy earth-moving machinery, often supported by government grants. Regrettably, the inhibition imposed by our ancestral beliefs has not yet been widely replaced by a respect for and pride in our local heritage.

It is my firm belief and personal experience that a person's involvement in the study of the landscape, both natural and manmade, will foster a sense of place, history and belonging. It will make a contribution to an awareness of one's identity.

Archaeology is studying only one aspect of our heritage, and it has to be studied in a broader context. The first thing to look at is the natural landscape; much (though not all) of it was there before our ancestors built their first monuments. Why did they choose a particular location? This question will be posed again in greater detail elsewhere, and while the title of the book says that it is about archaeology, the natural landscape will be dealt with also, if only to a lesser extent.

The person interested in Irish archaeology will gain a lot from studying the island's history, mythology and language. Ultimately our interest goes beyond the study of an old wall or a stone in a field. Ultimately we hope to learn something about the people who put it there. So we study the history as it has been written, the prehistory as it has been pieced together by generations of archaeologists and legends that can reveal hidden truths to the person skilled in separating the few grains of wheat in a basket full of chaff.

Irish mythology is as rich and fascinating an area of study as is Irish archaeology; and while it is not the subject of this book, it is good to keep eyes and ears open for folk tales and local tradition when dealing with ancient structures.

Placenames, some all but forgotten and remembered only by the older generation, can be very helpful too. Likewise, it is advisable to read up on books and journals that contain the knowledge acquired by professional archaeologists and historians, to see how the amateur investigator may interpret his/her own discoveries and how these discoveries fit into the larger picture. For the more serious student, the study of archives and documents in the local or national libraries will open up a cornucopia of fascinating knowledge about people and events that never made it into popular books, and references to places and buildings will raise questions that can be followed up in the field.

Visits to sites that are well studied by experts, where guided tours are provided, usually throughout the year, are most worthwhile. They are a source of valuable information and help towards a better understanding of the general context, and may generate ideas for local fieldwork.

While with the end of the twentieth century archaeology has come of age and asks questions about how people in a prehistoric and pre-literate time were thinking, this goes beyond the aims of the amateur investigator and certainly beyond the scope of this book. This workbook hopes to open a person's eyes to see details that might perhaps otherwise have been overlooked. That is its primary purpose.

Beyond that it hopes to encourage local historians to go out and do fieldwork. Practical fieldwork conveys a feeling of authenticity and a close relationship with the landscape and with every feature and object in it. Duchas the Heritage Service are doing great work in preserving, restoring and managing the country's major archaeological sites – many of them developed as tourist attractions. That is good, and it is rewarding and enjoyable to show the treasures of our countryside to foreign visitors. But the country's heritage is primarily for the people who live here.

Besides, there are features on the ground yet to be discovered and recorded.

Who will use this book?

This is not a book to be read by the fire: it is meant to be used in the field. With its help, the serious investigator as well as the casual visitor out for a Sunday afternoon stroll will find it easier to ask the right questions when looking at a monument.

In schools it should be seen more as a reference book for the teacher who will use it to design worksheets for the students, in accordance with the students' age, ability and access to sites and resources. Many of the procedures described are simple enough to be carried out by children of primary school age; and there is always the time-honoured way to make a difficult task simple: Leave out the hard parts. At secondary level teachers may choose to select exercises for history and geography students. The book should be of particular interest to teachers teaching Transition Year students. Away from the pressures of a highly competitive, exam-dominated curriculum, teacher and student have the freedom to probe into the more subtle aspects of a rounded education. Projects in Heritage Studies should have a prominent place in the programme.

Questions, not answers

This is not an archaeology textbook. Its content is about asking meaningful questions, rather than providing ready answers. So there is only a minimum amount of information given, enough, it is hoped, to provide some background knowledge and to enable the user to interpret some of the results of their own investigations. In that sense it is not specific to a particular area; it should contain plenty of suggestions for fieldwork for anyone interested in local studies anywhere in Ireland, North and South.

Fieldwork procedures described are largely about the manmade landscape, though some aspects of the natural landscape are included for reasons given above. It should be stressed again that there is reading to be done: fieldwork and background reading go hand in hand. The more one learns about a subject, the more interesting it becomes. And nobody can find out everything from scratch. The findings of archaeology, whether your own or those of the experts, make more

sense against a background of history, spiced with legend, local tradition and the hidden knowledge concealed in placenames.

Where do we start?

A good way to start your investigation is by taking a look at a map that has the archaeological sites in your area recorded. The whole island is now covered by the new maps of the *DISCOVERY SERIES*, scale 1:50 000. Not only are these maps quite up-to-date and show great geographical detail; they also have a great number of interesting sites and antiquities marked on them. Some of these sites are marked with a red dot, others are marked with a red ring or another symbol. In some cases you are told what to find, in others you have to go and see for yourself. *DISCOVERY* maps show contour lines at 10 metre intervals which give a good impression of the topography of the land.

More detailed information can be obtained from maps of the *Sites And Monuments Record* of the local area. They are based on the original six-inch map (with a reduced scale of 1:12 500, roughly five inches to the mile) and have known sites of archaeological interest marked with a circle or other marking. These maps can be studied in the Local History sections of the various County Libraries.

For some counties an *Archaeological Inventory* has been completed and published. The County Library should be in possession.

Soil maps (with accompanying bulletin) have been published for most counties in the Republic. They are in many ways more informative than maps showing only surface features, and can be very useful when looking for eskers, bogs or former lakes. The County Library and the Teagasc Office have them.

Of special interest are the six-inch maps of the first Ordnance Survey, which was carried out during the late thirties and early forties of the nineteenth century. They show many sites that have since disappeared from the surface as well as contemporary road and field systems, courses of rivers/streams, extents of towns/villages etc.

Aerial photographs are now easily accessible through the Internet. Though detailed coverage is still patchy, it is likely that this will improve over time.

Organisation and layout of the book

The main part of the book is divided into twelve sections. Some are chronologically arranged, some thematically, while some merely contain topics arbitrarily grouped together. Because of the difficulty of organising the contents systematically the sections carry no descriptive headings.

Section One is about where and how you might discover something new or unknown. Section Two shows what one might look for in relation to unspecified manmade structures. After that the book is structured in such a way that its *points of attention* appear under the headings of named monument types, even though in many cases the actual type of monument may not be known. The key provided in the appendix is a simple device that should help to identify a monument, but it should be noted that in it each 'answer' is followed by a question mark. The key goes solely by outward appearances and should not be taken as a tool for the definitive classification of monuments. Even experts are not always sure what they are looking at, and very often only the archaeologist's spade – an untouchable tool to the local investigator – will provide final identification.

Illustrations are presented on colour plates separate from the text. The captions provide information about the monument and in many cases point out how the item shown varies from others in the same category. They do not relate directly to other parts of the book but will, it is hoped, provide independent stimulation and ideas for field work.

Charts in the appendix provide an overview of disciplines of local studies. They further list natural aspects as well as manmade features and monuments we might encounter in the landscape, and attempt to give a general idea of why people may have settled and built in a particular location.

A number of distribution diagrams show where in Ireland various field monuments are commonly found, and a key is provided that will aid the identification of some common field monuments.

An index of key words and phrases refers to entries in the main part of the book but not to the illustrations or appendices.

Discovery: finding something new

Archaeology frequently makes the headlines in the Media when something totally new is discovered, though the real work for the archaeologist only begins afterwards. Still, it is possible for the local investigator to discover something hitherto unknown, and that can be most rewarding indeed. So what is your best chance?

Walkabout (ground reconnaissance)

There are still plenty of surface features in the landscape that can be discovered by just walking a field with open eyes and an open mind: old roads, deserted settlements, house platforms (sites of old stone houses whose walls have been removed and recycled, or mudwall houses whose walls have collapsed and are now overgrown), cultivation ridges in grassland fields (also called *lazy-beds*). These tillage ridges are generally referred to as *famine ridges*, though not all of them go back to the time of the Great Famine. Crop-marks as mentioned below under *Aerial Photography* may sometimes be visible at ground level when walking the field. In grassland, crop-marks show up best in after-grass, when a crop of hay or silage has been removed - especially when no nitrogen has been applied recently. Early Spring, when new growth sets in, is also a good time to look.

What you might come across:

- **Residual surface markings/ outlines of buildings/settlements;**
- **Traces of earthworks;**
- **Mounds;**
- **Roadways;**
- **Ditches.**

Ploughzone Archaeology: *Artefacts*, i.e. objects made or used by humans, can be discovered by walking over a freshly ploughed/tilled field, or when the new crop

is just emerging; especially when the sun is shining after a recent shower of rain. Stone implements and pieces of pottery show up well in direct sunlight.

Treasures under shifting sand

Coastal sand dunes and sand hills not covered by vegetation are subject to frequent wind action, and structures or artefacts covered by sand the previous day may become exposed after a night's storm or as a result of continuous wind. Artefacts are usually found scattered on the surface of the sand. A site may have been covered and uncovered several times, and monuments may have suffered severely from wind erosion.

The most likely discoveries are:

- **Stone structures;**
- **Stone artefacts;**
- **Charred pieces of wood;**
- **Bones (including fishbone);**
- **Pottery shards.**

Searching for Artefacts

This is a delicate subject as the emphasis in all the procedures described in this book is on the principle that investigations must be non-destructive, which rules out excavation. But there are situations where one might nonetheless find artefacts. Where a monument has already been totally destroyed, e.g. levelled through farming or building activities, then artefacts may occasionally turn up at the surface and thus come into the hands of lay persons.

A good time to look is where a field overlapping with a known or suspected monument is freshly ploughed and tilled and then washed by a shower of rain. Stone tools then tend to shine in the sun but metal objects may also become visible; or perhaps wattles belonging to a former crannog. It must be emphasised again that any finds have to be reported.

A bird's-eye view

Even where former surface features have been bulldozed, levelled, ploughed-out or removed, the subsoil can still differ significantly from that of the surrounding area and provide information about earlier structures. Drainage, for instance, can differ along covered walls or filled-in ditches and make outlines of features show up as soil marks or crop-marks during the course of the seasons.

- Soil marks are best seen when the field has been freshly tilled and is in the process of drying up
- Crop marks are seen in the growing crop. In mid-summer crop marks may show up in grassland when part of the soil is affected by drought.

Aerial photographs can be obtained from the ORDNANCE SURVEY OFFICE in Phoenix Park. They are expensive, but are of excellent quality and resolution, and each print covers a considerable area. The ARMY AIR CORPS also has aerial photographs. Aerial photographs of the CAMBRIDGE UNIVERSITY COLLECTION OF AERIAL PHOTOGRAPHS (CUCAP) can be viewed in the National Library. (Web reference www.aerial.cam.ac.uk). Satellite pictures can be downloaded from the Google Earth web site or similar sites, though only parts of the country are shown in high resolution.

A good hand lens is essential when looking for detail on a high altitude aerial photograph, though access to a stereoscopic microscope can be an advantage.

Features to look for in aerial photographs:

- **Outlines of buildings/settlements;**
- **Foundations of stone walls;**
- **Traces of earthworks;**
- **Outlines of mounds;**
- **Roads;**
- **Ditches;**
- **Field systems.**

Under the turf

The bog is a great resource not only as a reserve of fuel and as a unique ecosystem, but also as a store of archaeological treasures, and some may be discovered accidentally during turf-cutting.

Our Irish bogs are not, as one might believe, 'as old as the hills'; their earliest beginnings only go back to the end of the last Ice Age. The Ice Age ended about 10 000 years ago, but much of our bogs' growth and development took place far more recently, and it is therefore not surprising that we occasionally find manmade structures, artefacts, well preserved plant and animal remains or even human bodies buried under layers of peat.

In this context it is worth stressing the point that any find should be reported immediately and the site be disturbed as little as possible, as the actual location and position of the object can be significant. So what might we expect to find in a turf bank?

➤ **Bog timber;**

The acid and anaerobic (oxygen deficient) conditions prevailing in the bog are unsuitable for bacteria of decay, so that organic substances and the remains of plants or animals do not fully decompose, as they would if buried in ordinary soil.

➤ **Bog butter;**

Including containers/wrapping materials.

➤ **Artefacts and utensils of all kinds;**

While finds of tools, weapons, pottery and other utensils on dry land usually include only stone, ceramic or metal parts, similar finds in a bog would include wooden objects, wooden handles and other organic components. Metals, especially iron, would fall victim to the corrosive action of the bog acids and would hardly survive a few thousand years. But what about gold ...?

➤ **Textiles, including items of clothing;**

➤ **Burnt or charred items of food;**

➤ **Burnt or charred bones;**

Un-burnt bone does not stand up well to the acid conditions of the bog.

➤ **Wattle/wickerwork and other parts of wooden buildings/ building materials;**

➤ **Foundations/remnants of walls of stone buildings;**

- **Hearths of stone;**
- **Field systems;**
- **Crannogs;**
- **Toghers;**
- **Megalithic structures: tombs/alignments/circles;**
- **Animal and human bodies.**

Accidental discovery

Accidental discovery of hidden archaeological features and artefacts frequently occurs when the ground is disturbed below the usual depth. This happens regularly during excavation works for:

- **Field drainage**
- **House building**
- **Septic tanks**
- **Roadworks**
- **Sewage schemes**
- **Pipelines.**

Also included here should be:

- **Turf-cutting;**
- **Deep ploughing.**

The importance of context

Landscape features must always be seen in the context in which they occur. Each investigation should, in the broadest sense, look for relationships between people, land and resources.

Every new section in the book is introduced with the instruction to *Note location*.

Context also applies to the discovery of artefacts. When objects are accidentally discovered during the digging of foundations, turf-cutting etc., it is

important to leave them in place so that an expert may study the context and carry out careful excavation where indicated.

An underlying premise of archaeological work is that finds in deeper layers are deemed to be older, while proximity within a given horizontal layer means that finds are contemporary.

Reporting your find

If an archaeological object or a previously unknown monument is found, it must be reported *as soon as possible*. Objects are reported to

The National Museum
Kildare Street
Dublin 2.

Objects should be left in place unless there is a danger of theft, damage or destruction. If removed, their exact location (including depth) at the time of discovery should be recorded.

If objects are found away from their primary location (e.g on the surface a ploughed field or in a load of turf), then it is all right to remove them to a safe location, but their location should nonetheless be recorded as accurately as possible.

Monuments are reported to

Duchas The Heritage Service
Ely Place
Dublin 2.

Safety and right-of-way

The fact that a monument may be signposted, marked on the Sights and Monuments Record or on the 1:50 000 map of the OSI or OSNI does not necessarily indicate that a monument is safe or freely accessible to the public. Permission of the landowner should always be sought prior to entering private property.

Investigating manmade features

Wherever applicable, possible or meaningful, the following *points of attention* should be considered and appropriate procedures applied when investigating manmade structures.

It is emphasised here as well as in other parts of the book that manmade landscape features must always be seen in the context in which they occur. Each investigation should, in the broadest sense, look for relationships between people, land and resources.

Every new section in this book is introduced with the instruction to *NOTE Location*. Detailed general suggestions are listed below, while under the various headings the instructions are shorter though more specific.

Points of attention:

Location

Exact location can be determined with affordable GPS devices.

Location, in relation to

- **Major landscape features**
- **The sea**
- **Mountain ranges**
- **Major river estuaries/natural seaports**
- **Lakes**
- **Bogs**
- **Other features/structures of archaeological interest**

Topography

- **Prominent position?**
 - **On a major hill/mountain?**
 - **On a locally prominent elevation?**
- **On low ground?**

- **On the flood plain of a river?**
- **On a slope - facing south, north etc.?**
- **Elevation according to Discovery Series map or GPS?**

Proximity to sources of important raw materials

- **Flint (Stone Age)**
- **Copper (Bronze Age)**
- **Building materials (stone quarry)**
- **Others**

Soil factors

- **Light gravelly glacial deposits (eskers/kames/moraines)**
- **Rocky substratum with thin soil cover**
- **Heavy clay**
- **Boggy soil**
- **Well-drained or subject to waterlogging (Rushes growing on grassland – dark soil colour)?**
- **Soil on the site of the monument compared to that of the agricultural hinterland**

Natural protection: backing onto

- **a cliff?**
- **the sea?**
- **a lake?**
- **a bog?**

Natural roadways or pathways of communication, such as

- **Eskers**
- **Other types of well-drained high ground**
- **Rivers (navigable? – for what type of craft?)**
- **Fords**

Manmade roadways

- **Historic roads**
- **Other roads that may 'look old'?**
- **Modern roads**
- **Toghers**
- **Old bridges**
- **Improved fords (stepping stones, man-laid gravel beds)**

Other archaeological/historical sites

- **Contemporary/earlier centres of power?**
- **Proximity to burial/ceremonial/religious sites of a contemporary/earlier/later culture?**
- **Modern sites (towns, villages, churches, roads, bridges etc.)?**

Orientation

- **Bearings between neighbouring monuments;**
- **Orientation of entrances, doorways etc.**
- **Orientation of alignments**
- **Orientation of single (flat) stones**
- **Orientation of (e.g. church) walls**
- **Etc.**

Measurements

- **Height/length/width**
- **Thickness**
- **Diameter/radius (external/internal)**
- **Distances between neighbouring monuments/features**
- **All distance measurements ought to be horizontal**
- **All measurements are external unless otherwise specified**

Measure everything that can be measured;
Count everything that can be counted.

Building materials

Stone

- **Type of stone: limestone/sandstone/granite/mixture of different stone types**
- **Was the stone well-suited for carving/ engraving?**
- **Was the stone surface-gathered or quarried?**
- **If surface-gathered –**
 - **Gathered from the land surface?**
 - **Gathered from the seashore?**
 - **Gathered in a riverbed?**
 - **Selected from a gravel pit?**
- **If quarried –**
 - **Quarried in situ (e.g. stone from fosse/moat/ditch cut into underlying rock used for building walls etc.)?**
 - **Quarried locally (from nearest/most convenient quarry)?**
 - **Quarried within 20 km?**
 - **Quarried more than 20 km away?**
 - **Imported from abroad (England/Wales/France)?**
 - **Type and quality of masonry**
 - **Drystone?**
 - **Mortared?**
 - **If mortared –**
 - **Was the mortar applied during building?**
 - **Was it pushed into the joints after the drystone work was completed?**
 - **Rubble walls?**
 - **Ashlar (dressed) blocks?**
 - **Coursed quarried stone?**
 - **Uncoursed quarried stone?**
 - **Mixture of ashlar blocks and rough stone or brick?**

The presence of brick in original stonework indicates that the building must be post 1630, since brick was first used in Ireland at that time.

Special wall features

- **Batter (external, internal, both)?**
- **Buttresses (internal/external)?**
- **Any evidence that stone may have previously been used in another building (e.g. ashlar blocks mixed at random with un-cut stone)?**
- **Any indications that walls have been repaired?**
- **Any straight vertical joints in walls (service entrance during construction of wall [e.g. in stone cashels]; later extension of building [Norman towers])?**
- **Any other evidence of building extensions?**
 - **Different stone type**
 - **Different quality of masonry work**
 - **Different type of dressing**
 - **Different building style etc.**
 - **Any evidence of later alterations**
 - **Insertion of windows/doorways**
 - **Closing off of windows/doorways**
 - **Repairs to walls, windows, roof etc.**

Other building materials

- **Wattle-and-daub**
- **Mudwalls – reinforced with**
 - **Straw**
 - **Rods**
 - **Rushes**
 - **Etc.**
- **Brick (see above)**
- **Mixture of stone and brick**

Roofing materials

- **Thatch**
- **Straw**
- **Reed**

- **Flax**
- **Other materials: locally sourced?**
 - **Stone**
 - **Slate**
 - **Clay tiles**
 - **rectangular**
 - **scalloped**
 - **Cement tiles**
 - **Asbestos tiles**
 - **Corrugated steel**
 - **Corrugated asbestos**

Record your observation

- **Draw diagrams**
 - **Draw to scale wherever possible**
 - **Draw plan of site**
 - **Draw plan of feature(s)**
 - **Draw section (e.g. of earthwork)**
 - **Draw elevation (e.g. of a building)**
 - **Indicate orientation**
- **Take photographs – from all possible angles and under different lighting conditions.**
 - **Take aerial photos if possible – from an aircraft, an elevated location or a ‘cherry picker’ (mobile aerial platform)**
- **Give a verbal description.**

Check your own fieldwork against

- **Literature**
- **Large scale (six-inch Ordnance Survey) map – different editions**
- **Available aerial photography**
- **Google Earth satellite pictures**
- **Known archaeological finds (pottery, tools, ornaments, burials etc.) from the locality**

- **Documentary and other historical sources**
- **Placenames**
- **Myth, legend and local tradition**
- **Distribution diagrams.**

Landscape features

The course of Irish history has been greatly influenced by the geology and landscape of this island. Mountains, lakes, rivers, bogs, eskers and drumlins often determined where our ancestors – or their invading enemies – would settle, farm, build their monuments, fight their battles or march their armies. Landscape features also determined boundaries between neighbouring territories.

Suggestions for the investigation of natural landscape features are limited here to the study of dry lakes and eskers, because they had a very direct influence on the course of ancient roadways and settlement patterns. Dry lakes may show evidence of former crannogs.

Dry lakes

Towards the end of the Ice Age, about 10 000 years ago, the ice sheets and glaciers that covered most of Ireland gradually melted away. Into the ice were frozen vast amounts of stone, rock, soil and rubble, which subsequently were dumped upon the land surface.

Some of this 'payload' was deposited to create distinct landscape features like terminal moraines, eskers and drumlins, while much was simply dropped as ground moraines wherever it happened to be when the ice melted.

As a result, the land surface was very uneven when the ice was gone; there were many elevations and depressions. The latter soon filled with water and formed shallow lakes. Where a river or stream happened to flow into one of these lakes, the river would soon cause the lake to overflow. It would wash an ever deepening channel into the loose glacial material that dammed the lake and eventually cause the latter to drain dry.

Other depressions had no regular influx of water apart from the original meltwater, rainfall and local inward drainage. Here the water would stagnate, plants

would colonise the shallow lakeshore, eventually resulting in the formation of raised bogs.

➤ **Look for very level expanses of land.**

The lowland regions of Ireland are generally far from flat; there is an abundance of minor hills and undulations. Very level expanses, where they occur, usually indicate the prolonged action of water on loose glacial material.

➤ **Are these areas part of a river valley?**

➤ **If not, are they part of a dried-up post-glacial lake?**

They may be both! The river may have drained the lake by creating a channel into the dam that was holding back the water. The lake bed thus became part of the river valley or its flood plain.

➤ **Are they reclaimed bogland?**

Where a post-glacial lake had turned into a bog, the bog in turn may since have been drained and reclaimed, showing up as a large area of flat land.

➤ **Look for rises: sudden slopes or banks marking the transition from flat to undulating terrain.**

These rises often indicate the former lake shore. In some places they may have been fortified by a ditch-and-bank or a wall, resulting in a sudden, step-like transition.

➤ **How was the lake drained?**

➤ **Look for a river/stream flowing out of the former lake bed.**

➤ **When was the lake fully drained?**

➤ **Was it in historical times? Is there a local tradition?**

➤ **Any name references (lough, salach)?**

➤ **Consult the relevant soil map and soil bulletin of the county.**

Soils in a former lake bed tend to be totally different from the soils in the surrounding countryside. Since there is often a problem of persistent or frequent waterlogging, gley soils are common in these former lakes. While not totally reliable for details, the soil map will give a fair indication of the extent of the former lake.

➤ **Look at the area after heavy rain.**

Former lake beds may still be subject to flooding.

➤ **Look for evidence of former crannogs.**

There may be small (20-30m diameter) elevated areas, usually round in shape, in otherwise low-lying, flat surroundings. Where they have been ploughed-out, examine the ploughed surface for wooden remains, stones and artefacts. First Edition Ordnance Survey maps may show features that could have been a crannogs.

Hot springs

The average temperature in Ireland is around 10° C, and at a depth of a few metres there is no longer a difference between Summer and Winter. Therefore, water rising from such a depth will have the same temperature all year round, i.e. 10°. If the spring water has a temperature greater than 10°, then it must have been exposed to a heat source, e.g. a layer of hot rock. You may have discovered a hot spring though the temperature may be only 13° C!

➤ **Measure the temperature of the spring at different times of the year.**

➤ **Is the spring anywhere near a gravelly hill?**

Hot springs often occur near gravelly hills left over from the last Ice Age. The spring probably would have flowed all the time while ice sheets covered the land and caused the melting of the ice from underneath. That caused the stones which were frozen into the ice to tumble down and thus started the formation of the hill.

➤ **Plot different hot springs in the area on a map and look out for a regular pattern.**

There may be an underlying pattern like a fault in the *solid geology* (rocks beneath the glacial deposits) that is responsible for the omission of heat.

Using maps in road research

Eighteenth century maps

These are generally the first maps to show roads, though earlier ones do exist. Older maps may show fords and/or bridges, though!

Nineteenth century maps

Six Inch Ordnance Survey Maps are the most accurate maps for detail. The important maps here are the **First Edition Ordnance Survey maps**. They date from the late 1820s to the 1840s, depending on county. These were the first maps accurately surveyed and can be trusted to be true to scale. Because they date from a time when no major landscape changes had yet been undertaken, they show interesting roads that are hard to locate on modern maps or in the landscape. However, they may not show all the antiquities marked on a modern OS map. Not all versions of early maps show contour lines, and those that do show them at 100 foot (c.30m) intervals.

The maps of the **Sites And Monuments Record** are based on six-inch maps but are slightly scaled down. They show field monuments, including trackways through bogs. They are regularly updated.

Twentieth century maps of the OS Discovery Series

These maps are very accessible and inexpensive. They are very accurate, and their 10m contour lines are helpful when looking for topographic detail. They also show features of archaeological interest though unfortunately these are not always placed accurately.

Soil maps give information about the drainage properties of the soil and can be helpful when assessing the suitability of the ground for wheeled or hooved transport. However, soil types are often classified as *complexes*, which means that there can be significant local variations.

Eskers and esker roads

Eskers are long, often winding sand-and-ravel ridges created at the end of the last Ice Age by the melt-water of receding ice sheets. They may be fairly regular ridges or they may have an uneven, 'bumpy' surface, and are frequently pockmarked with gravel pits (or disused pits, later often used as land-fill sites). Their free-draining soil and subsoil and their uneven surface make eskers popular sites for golf courses.

Some eskers are many kilometres long and hundreds of metres wide, while others are smaller and more localised. The smaller ones are easier to recognise and more pleasing to look at.

Since prehistoric times, eskers were the natural roadways that allowed passage through bogs and other wetlands. Because in Ireland any low-lying land is usually wet, subject to flooding, boggy or downright impassable at least part of the year, eskers provided well-drained natural roadways that would not get too muddy after a shower of rain. Eskers normally extend in a linear though winding fashion and also occur commonly in the Irish midlands where the only alternative would often be bog.

In esker country, the first manmade roads, apart from toghers through bogland, followed the course of an old esker roadway, wherever possible. Where eskers still carry roads in present times, these roads tend to be rather old. In Dublin, the Greenhills Road between Walkinstown and Tallaght is a good example.*

In more general terms, high ground was always the choice for roadways; the terms *highway* and *High Street* bear witness to that. Roadways along ridges or watersheds necessitated fewer river crossings. Also, the soil cover on elevated ground tends to be less than in low-lying areas, therefore there is less danger of a deep morass ensuing during rainy spells. Even where the underlying rock is impermeable, surface runoff can still provide good drainage. Flooding is almost ruled out, except where depressions fall below the water table.

* For a detailed study of the historic Esker Riada and its associated roadway, the Slí Mhór, see H. Geissel, *A Road on the Long Ridge*, www.crsbooks.net.

To recognise an esker road:

- **Is the land falling off on both sides of the road?**
The road may not be running on a prominent ridge. A lot of levelling may have taken place over time through human activity or natural erosion.
- **Are there gravel pits along the roadside?**
The material that makes up eskers was at the time of their formation vigorously rolled in running water; stones had their edges rubbed off and turned into pebbles. Clay components were washed out and carried away. Eskers are good, productive sites for sand/gravel pits.
- **Are the stones on the surface of nearby tilled fields or other exposed areas well rounded?**
- **Do excavations (e.g. for house foundations, septic tanks, road construction etc.) expose gravelly or sandy material or well rounded boulders?**
- **Are there old graveyards along the side of the road?**
The larger eskers in the region of the midland bogs were favourite sites for settlements such as the so-called *bog monasteries*, some still recognisable in the landscape as graveyards.
- **It is worth looking for ancient burials in gravel pits and other excavations (see below under *pit burials*).**
In the distant as well as the more recent past, eskers were often chosen as sites for cemeteries. It was easy to dig a 6 foot deep hole in the loose, gravelly ground, but the prominence of an elevated esker ridge might also have been of importance.

Other ancient roadways

The study of ancient roads and roadways makes use of documentary, geographic and cartographic evidence and also pays attention to placenames and local tradition.

Old, *evolved* roads look different on a map than modern, *planned* roads. Generally speaking, old roads are curvilinear whereas modern roads are straight. (However, it can be the other way around, where the old road goes across a hill or a series of hills and the modern road avoids steep inclines. Good examples are the old road from Tralee to Killarney or the road from Jobstown to Brittas. Though neither of them is truly old, each is older than the more bendy road that took over from them.)

Where a modern road for no apparent reason takes a turn and then reverts to its general direction, it often incorporates a stretch of an older road. It is then worth looking for remnants of the old road (trackways, driveways, hedgerows, field gates) in both directions from the turning points, and also least ridges of elevated ground.

It would stand to reason that roads or roadways, once established, would survive over time. However, deliberate changes were commonly made by landlords during the seventeenth or eighteenth century, when they abandoned their old tower-house or fortified accommodation and built a new mansion. Typically the old tower would have been close to a road, but the lord wanted his mansion away from public traffic, so he diverted traffic by building roads around the perimeter of the demesne. The original road may still exist as an avenue or a trackway, often marked on the 1:50 000 map. (OSI have indicated that some of these tracks will be omitted from future editions.) New roads largely independent of earlier roadways were created in the eighteenth century in the form of turnpike roads, and indeed modern motorways and bypasses.

Individuals or authorities that changed the course of a road did not set out to commit the 'perfect crime'. Remnants of disused or decommissioned roads can frequently be recognised in modern road/street patterns or in the general landscape.

Where an evolved road rides an ideal stretch of high ground between identified destinations (settlements, fords, passes, toghers), it is likely to mark an older, possibly prehistoric, roadway.

Documentary sources will reveal the movements of kings, armies, saints and roving poets. The document may mention some of the places travellers have visited or passed through.

Points of attention:

Missing stretches between documented landmarks can be filled in by –

- **looking for extant old roads (or tracks/remnants)**
- **looking for suitable high ground with well-drained sub-soils that would have allowed travel under reasonable weather conditions**
Rushes in grassland give away poor drainage and indicate poor suitability for roadways. In tilled fields, light coloured, stony or gravelly soil generally indicates better drainage than dark coloured soil. Level, low-lying land is generally unsuitable, and modern roads passing through it are usually raised and/or provided with drainage ditches.
- **taking account of the season (if known) during which the historic journey took place;**
This may indicate whether the road the traveller took was passable in winter.
- **looking for bottle-necks: a ridge of high ground between two expanses of bog or other wetland; a documented pass through otherwise dense and impassable forest, a ford or a togher**
Where bottle-necks are not given, the early traveller traversing an expanse of well-drained land was not bound to stick to a well-defined track.
- **identifying historical and archaeological sites along the hypothetical route; taking into account placenames and local tradition.**
Irish names are more helpful than Anglicised forms. Ballagh (*bealach*) indicates a pass through otherwise impassable land, e.g. bog or dense forest, less often a mountain pass. Boher (*bothair*) of course means a road. Placename elements like áth (sometimes corrupted to agha) or *béal átha* refer to a ford (mouth of a ford). Variations on the theme of *droghead* refer to a bridge. Togher (*tochar*) is a track through bogland. Kesh (céis) refers to a wickerwork ford or bog road.
- **looking for suitable river crossings (e.g. a ford linking two legs of an esker on either side of the river.**

Toghers and bog roads

A togher (*tochar*) is generally understood to be a wooden trackway through the bog, though the word can also refer to more elaborate or more permanent bog roads. Some of these manmade causeways go back to the Bronze Age, even as far back as the Neolithic (New Stone Age). Materials used include branches of trees, especially oak and birch, hurdles made of interlaced rods from coppiced hazel, brushwood, sods, clay, gravel and stones. They might consist of two parallel wooden ‘rails’ with ‘sleepers’ placed across them, ‘roundwoods’ placed alongside

each other in the direction of the track or wickerwork. More complex constructions are known, made up of several layers, and many variations on the above themes.

The most outstanding example of a togher is the Corlea Road in County Longford (it is there on public display); tree-ring dating (dendrochronology) has established that its timbers were felled in 148 BC. Toghers in County Kildare have been dated to 1483 BC, a date that falls into the Bronze Age.

More substantial bog roads are constructed with a foundation of gravel and may or may not have timber incorporated. Some of the points below may still apply.

Points of attention:

- **Does the timber consist of round poles, split roundwood, planks (thickness?), hurdles, wickerwork, brushwood?**
- **Are there mortise holes in the planks etc.: i.e. were the planks pegged down?**
- **In the case of light timbers, how are they joined together?**
- **What materials were used, other than wood?**
- **Was the track wide enough for wheeled vehicles or just for pedestrians/horses?**
- **What was the importance of this particular trackway?**
- **Did it connect 'dryland' with an 'island' in the bog?**
- **Did it provide a continuation of an esker road or a connection between two stretches of esker roads?**
- **Did it lead to a ford across a nearby river?**
- **Can togher roads in your area be identified from road names, placenames or local tradition?**

If a togher is accidentally discovered in a bog, it must be reported immediately.

River crossings

The most likely place for crossing a small river was where the valley, not the river itself, was at its narrowest (provided it was accessible and not a deeply cut gorge). A wet river plain would have caused greater difficulties than the river itself. Small rivers could often be bridged with the help of a plank bridge. The 10m contour lines

of the OS Discovery maps (see below) are useful indicators of the relative width of a particular section of a valley.

For larger rivers that had to be forded other considerations were important, like the slope of the approach, the firmness of the riverbed etc.

Early river crossings can be identified by extrapolating known ancient roadways towards the river, even where roads were subsequently diverted to meet bridges or where the immediate vicinity of the crossing was redeveloped or significantly changed. The course of the river may, however, have changed naturally over the centuries.

The present properties of a river, like width and depth of the riverbed, speed of flow, configuration of the riverbank etc. may be the result of human activity, often dating to the nineteenth century.

Where a ford was improved by placing stepping stones onto the riverbed, these may still be present. Where gravel or rubble was used to upgrade the ford, the flow of the river may still be slow over the gravel and then rapid immediately downstream of it, providing direct evidence of the ford's location.

To find the original river crossing –

- **Follow the directions of approach roads *before they divert* to meet a bridge.**

Bohers and bohreens

Ancient roads or pathways may occur in connection with early field systems or quite independent of them. They may have been part of a major road, linking important centres, or simply be a *bóthar* in the original meaning of the word – a *cow path* on which cattle were driven to market or from summer to winter pasture and back.

Points of attention:

- **Is there a sudden bend or turn in a road? What could account for it?**
It is true that our early ancestors were not as obsessed with straight roads as later generations were, but when they built a road with a sharp turn in it, they usually did it for a reason. Perhaps there was just a big tree in the way – but maybe it was an ancient stone circle, a ringfort or an Anglo-Norman cattle enclosure. Maybe the road once went straight on and was later diverted.

- **Does a reasonably straight road veer off to one side and make a roughly semicircular turn, then revert to its original direction?**
- **If so, is there a circular earthwork (perhaps now levelled or ploughed-out) or a circular field.**
- **Are there traces of an old bridge (in the field) or a bridge marked on the map where the hypothetical road might have crossed a stream.**

Famous historic roads

The most famous ancient road in Ireland is probably the Slí Mhór, which by and large ran along the extend of an esker system known as the *Esker (Eiscir) Riada*. While the medieval annals contend that the Slí Mhór was one of five roads converging on Tara, the esker system definitely ran from Dublin to Galway Bay (Clarinbridge), and it is likely that the Tara dimension was an afterthought, propagated by the ‘spin doctors’ of the Tara kings. (See Footnote 1 re *A Road on the Long Ridge*. At various parts of the book it is acknowledged that there is ample scope for more thorough work by local investigators.

Points of attention:

- **Where did the Slí Mhór, the *Via Magna*, run in a particular local area?**
There may have been more than one choice, several possible routes, perhaps close-by or kilometres apart. In County Offaly complex esker systems can occasionally make it difficult to decide on one particular ridge. Early settlements (monastic and otherwise) may be good indicators of an important route; also Anglo-Norman motte-and-bailey castles at river crossings and elsewhere .
The other four roads mentioned in the medieval annals along with the Slí Mhór were:
- **The Slí Dhála;**
- **The Slí Chualann;**
- **The Slí Midhluachra;**
- **The Slí Assail;**
- **Tara to Naas (seat of the Leinster kings);**
This road would have been one of the main North-South roads in prehistoric times and would have opened up access to the South and Southwest of the country.
- **Tara to Glendalough;**
- **Tara to The North;**

- **Naas to Glendalough;**
- **The Great Midland Corridor: Tara across the midland bogs into Munster;**
- **The *Old Bog Road*;**
- **Documented or traditional pilgrimage routes;**
- **Any other famous roads?**
- **Do myths, legends, ballads and songs associated with these roads give indications?**
- **Where does the *ford-of-the-hurdles*, *Ath Cliath*, come into the picture?**
There was actually another *Ath Cliath* in the Galway Bay area, at the other end of the Great Road (and others elsewhere)!
- **What is the connection?**
They are just one example of an amazing symmetry displayed by the Slí Mhór.
- **What other river crossings have become famous in history or in myth?**
Placenames the elements áth (ford) or droichead (bridge) in them might show the way. Also common is *béal átha*, the 'mouth' of (access to) a ford.

Modern roads

Great changes in our road system took place during the eighteenth century. While up until the mid 1700s, people travelled overland mostly on horseback or on foot, and goods were often carried in pack horses' pannier baskets, coach travel became more widespread in the second half of the eighteenth century, and this required the provision of better roads. In addition, military roads were built.

Within recent times many roads have been straightened and/or widened. Such alterations are worth marking and recording.

Points of attention:

- **Are there separate maps from the first and second half of the eighteenth century in existence for the region under investigation?**
Problems with earlier maps are mentioned above (no roads marked).
- **It is a rewarding exercise to identify roads on an old, inaccurate map and transfer them onto a modern map.**
Ordnance Survey maps dating from around the turn of the century are true to scale and yet not too 'modern'. One-inch county maps are ideal. Comparison between "adjusted" maps of the early and late 1700s highlight the changes that took place during the mid 18th century.

- **Are there any roads marked on either of the eighteenth century maps that have since disappeared or been relocated?**
- **Are there any roads marked on the First Edition Ordnance Survey map (c.1840) that have since disappeared?**
- **If so, is it possible to identify remaining portions (if present)?**
- **Are there any traces left of the parts that are gone. (Aerial photography may help but fieldwork may prove more rewarding.)**
- **Are there ditches / field boundaries that mark a former road?**
When a road was decommissioned, it was normally divided between the two adjoining landowners. It may still show where part of the way the ditch on one side was left as the boundary, while further down the opposite ditch was left. This was done to divide the newly available land fairly between two neighbours.
- **Is there a spur of road that suddenly ends without apparent reason. Why does it not go any further?**
The typical *bohereen* of old was a cul-de-sac leading from a through road to a farmstead. But what if there is no farm at the end of it?
- **If there are unexpected turns in a road:**
 - **Was there once an older road that went straight on from here?**
 - **Does the road describe a part of a circle/ellipse? Was there a ringfort / enclosure here at one time that had to be bypassed?**
 - **Did the road at one time take a course to avoid a lake/swamp/ bog?**
- **Did the old road really cross the river where the modern bridge is now?**
- **If not, where then was the river crossing before the *present* bridge was built?**
- **Where was the river crossing before the *first* bridge was built?**
- **Is there a weir nearby that might still mark the location of an ancient ford?**
Fords were often rock banks running across a river bed, resulting in shallow water. Such a rock plinth would have made a good foundation for a weir also.
- **Is there perhaps a cobbled bohereen running down towards the river, near the bridge - and a similar one running up the opposite bank?**
- **Is there an old bridge in a field without an apparent road leading to/from it?**
- **What was the state of development of the Grand/Royal Canal systems at the time the maps were drawn up?**

Lesser and greater kingdoms

The baronies of recent times, still referred to when searching for land titles, largely correspond to the *tuatha* of old. When the Anglo-Norman conquerors were rewarding their knights for services rendered, they found these ready-made parcels of territory just the right size for a barony. They took them over from the Gaelic-Irish chieftains and gave them to their followers.

Points of attention:

- **Obtain a map of your local barony.**
- **If this map has no roads marked on it, it is useful to transfer the roads from a modern half-inch map onto it.**

To do that, one of the two maps must first be enlarged/reduced on a photocopier to the scale of the other. After copying one map on a sheet of clear acetate or light paper, the two maps can be superimposed and features can be easily traced or photocopied together. Tracing the roads on acetate by hand can be helpful. Scanning the maps and treating them with suitable computer programs offers alternatives to the initiate.
- **Follow the boundaries: are they naturally determined?**

The boundaries of a *tuath* were often determined by geographic features that provided a natural obstacle: rivers, streams, lakes etc. Where an area of bogland marked the boundary, the exact *mearings* may never have been determined.
- **Are there exceptions to this rule in your area?**

Sometimes the course of a stream may have been redirected through artificial drainage, but the border remained where it always had been.

Today's counties have no equivalent in the Gaelic-Irish world. But –
- **Check a map of modern dioceses against a map of medieval kingdoms / tribal territories.**

One should keep in mind that CHURCH OF IRELAND dioceses and parishes frequently inherited the ancient divisions. ROMAN CATHOLIC dioceses and parishes stem from the nineteenth century!
- **Where are the modern equivalents of Breffni or Ossory or ...?**

Ancient field systems

Neolithic field systems have been found in various parts of the country where they are preserved under blanket bog. Stone walls or indeed earthen banks may accidentally be exposed during turf-cutting, and such finds must be reported immediately.

If old field fences exist under blanket bog then they must also exist elsewhere, except that it is extremely difficult to distinguish Stone Age walls from more recent ones.

It should be noted that in Neolithic times the Irish climate was more pleasant than it is now, and regions which later suffered the growth of blanket bog or, due to overgrazing and other factors, became denuded over the centuries, would at the time have provided reasonable or even good farmland.

Some bank-and-ditch fences on the surface have also been shown to be of similar age as nearby ringforts or early monastic sites.

Points of attention:

Where there is evidence or reason to suspect their existence, it makes sense to look for walls and fences under blanket bog by probing into the bog with long, rigid, T-shaped rods or bamboo sticks. A whole landscape of Stone Age field systems, known as the *Ceide Fields*, has been plotted this way in County Mayo.

This investigation is particularly indicated where some walls have already been exposed, perhaps during turf-cutting, and where a continuation of the walls can be traced by the above method. If probing yields a depression (ditch) beside a raised resistance then the latter is likely to be an earthen bank.

➤ **Examine stone walls in bare-rock landscapes (e.g. The Burren, County Clare).**

A bare-rock landscape will, by its very nature, not have been intensively farmed in modern times and any field systems present are likely to be of considerable age.

- **Where surface walls resting on limestone or other easily weathered rock are examined, look for a solid plinth under the wall.**

Ancient walls, going back to the Late Stone Age or Early Bronze Age, have been identified in the Burren of County Clare. While the limestone plateau of The Burren has been subject to 'rapid' weathering (an estimated 0.02 mm/year) since the walls were built, the area under the wall was protected against the physical and chemical (acid) action of falling rain. As a result, the walls which are several thousand years old now appear to rest on a pedestal of rock several centimetres higher than the surrounding plateau.

- **Is there any trace of soil under the wall in an otherwise bare landscape?**

The wall could have protected the soil underneath from erosion.

- **Are large upright stones incorporated in the wall?**

In some cases, the smaller stones may have been removed, leaving the upright stones to appear as a standing stone/row.

- **To find ancient ditch-and bank systems, look near ringforts, early monastic sites and in marginal upland areas no longer subjected to intensive farming.**

Field fences will appear as low banks and the fields enclosed will be smaller and possibly less elongated than modern fields in the area.

- **Map the outlines of fields when they become apparent.**

- **Judge if the fields were individually fenced off or if they are part of a well organised and co-ordinated system.**

- **From the shape of the fields, judge if they were better suited for tillage or grazing.**

Field systems composed of parallel walls, subdivided at intervals, were more likely grazing paddocks. Smaller, irregular fields could have been tillage fields.

The plough known to Bronze Age people was the *ard*, a wooden plough with a stone tip. It was only able to score the ground without actually turning the sod as a modern mouldboard plough does, and reasonable results could only be expected where the field was ploughed twice: the second run at right angles to the first. This worked best in a field that was reasonably square in shape, while work with the mouldboard plough (from about seventh/eighth century CE) favoured long, narrow fields.

Under the bog, criss-cross plough-marks have been found in small irregular or square(ish) fields.

However, instead of the plough a spade may have been used. The spade employed for this purpose is used to lever up the soil which is then turned over. There were several different types of spade known in different parts of Ireland. A spade would leave no plough-marks, but cultivation ridges (*lazy-beds*). In permanent grassland or wasteland ridges can still be seen in many parts of the country, but they have also been found under blanket peat where they were most likely dug with a spade.

Points of attention:

- **Note smaller (irregular) fields among larger fields.**
These could be tillage fields within a pattern of grazing paddocks.
- **From the height of the walls, judge if they were better suited to contain (keep in or out) sheep, cattle or either.**
- **Are the stone walls built over a layer of peat?**
This would indicate a later date of construction when peat was already established.
- **Take measurements:**
- **Distance between parallel walls;**
- **Distance between cross-walls (subdivisions);**
- **Area(s) enclosed.**
- **Note other features associated with old field systems:**
- **Any enclosures:**
 - **round/oval/irregular?**
- **Any house platforms/foundations?**
 - **Round?**
 - **Rectangular?**
- **Any cairns/megalithic tombs – tomb type identified?**
- **Any ancient roads in connection with field systems?**
- **Any hill-side terraces?**
The dating of such terraces is often problematic; they may be modern.

Ditches & hedgerows

While the dictionary definition of *ditch* is a *long, narrow excavated channel*, in Ireland the term is often used to denote the *ditch and bank*. This can sometimes be confusing.

Ditches had several functions: they provided drainage, served as boundaries and fencing, and the hedgerow growing from them provided shelter for livestock and crops.

Points of attention:

➤ **What part of the ditch marks the boundary?**

Even though the cows in the field seem to have no doubt that the hedgerow is the boundary, legally it is not. We might wish to believe otherwise, but the digging of a ditch and planting of a hedgerow were not usually a co-operative effort shared between two good neighbours. Instead, one farmer carried out the work, and he had to do it *all on his own land*.

➤ **On what part of the ditch (at what level) was the hedgerow planted?**

➤ **How old is the hedgerow?**

There is a way of dating hedgerows, though this can only be a rough guide. The species planted was generally whitethorn, and all other tree or shrub species arrived in time without human help, i.e. the seeds were carried by birds or by the wind. Any new species per 100m stretch indicates an age of 100 years. In order to date a hedgerow –

➤ **Measure a 100m stretch and count the tree/shrub species (other than whitethorn). Repeat the procedure several times and take the average.**

➤ **Check old maps.**

The First Edition large-scale maps from around 1840 show fewer fences than more recent maps.

➤ **If the ditch is old (pre-1830's), does it mark the course of a former road?**

A close look is justified here. Ditches marking old roads don't fit into the rectangular pattern of modern ditches but follow an independent course. If the bed of the ditch is fairly wide and flat, it can mean that it was once a road from which the second ditch/hedgerow was removed, and the road area added to the adjoining field. (To be fair to both adjoining landowners, part of the road was given to the farmer on one side and part to the other. So the ditch is sometimes discontinuous and seems to 'jump' from one side of the former road to the other).

➤ **Look for double ditches.**

Double ditches were often built around a townland or estate to protect the landowner against cattle rustlers. The idea may go back as far as the Black Pig's Dyke (see Linear Earthworks) and the practice continued up to the eighteenth century.

➤ **Mark double ditches on a six-inch map.**

➤ **Any associations of the double ditch with The Pale?**

Once The Pale was defined as an area in the late fifteenth century, landowners were required to build double ditches to protect the people living within The Pale (who were mostly English - except for their servants) against the 'Wild Irish' from *beyond The Pale*. The exercise never got very far, but stretches of the Pale Ditch remain in County Kildare, between Clane and Clongoweswood. Perhaps elsewhere?

Field shapes and sizes

Points of attention:

➤ **A circular field: could it be an early Anglo-Norman cattle enclosure?**

While Gaelic-Irish cattle farmers engaged in a semi-nomadic way of herding called *booleying*, i.e. moving around the countryside with their herds and exploiting suitable winter grazing areas, the Anglo-Norman landlords needed a place where they could winter their cattle and feed them on hay. This involved fencing off a field: circular, because it was more efficient than rectangular. Some of these early circular fields or parts thereof were incorporated into later field systems and can still be identified. Large scale maps and aerial/satellite photographs show them up better than on-foot inspection.

➤ **Is there a motte/castle/big farm with stone outhouses nearby?**

That would indicate an early Anglo-Norman estate. (A big farmstead with stone buildings can mean that an earlier castle was taken down and the stone recycled).

➤ **Could it be a former monastic enclosure?**

➤ **If it is not an Anglo-Norman farm, look for evidence (including local tradition and placenames) of a monastic settlement (church, cross, graveyard etc.) within or nearby.**

➤ **Is it modern? Perhaps just a pleasure ground in front of a big house? Check the distribution of mature trees.**

➤ **Long narrow fields**

Likely to be Anglo-Norman. Anglo-Norman farmers ploughed up-and-down a field, so long, narrow fields suited their purpose.

➤ **Narrow curved fields**

Often the ploughing operation resulted in giving the field a curved shape. This shape was made permanent fencing.

➤ **Short, small or irregular fields**

Likely to be pre-Norman in origin. Before the mouldboard plough was introduced, farmers used the *ard*, a plough that only scratched and loosened the soil but did not turn it. Ploughing with the ard would leave ridges between successive passes, which necessitated a second operation ploughing at right angles to the first, so a fairly short or almost square field was best suited. Where the spade was used instead of a plough, the field shape and size was immaterial.

➤ **Small, narrow fields surrounded by large fields**

The fields might have belonged to a small medieval settlement of small farmers. Near the houses was the *infield* and further out the *outfield*. The infield was tillage and the outfield pasture.

House platforms

House platforms are low elevations in a field or enclosure that may or may not show the outlines of former walls. It is advantageous to visit potential sites in winter or early spring when last year's vegetation has died down, which allows low ridges or banks to be seen. Shadows cast by a low winter sun may enhance otherwise barely visible features. Aerial especially worth looking near a big house that was built in the early nineteenth century. Aerial photography can be very helpful.

The collapsed walls may be mud walls, or there may be remnants of stone walls or the stone foundations of a mudwall house. Any close investigation of house platforms involves archaeological methods that are outside the scope of this book.

It is are possibly still there, perhaps only as a barely noticeable house platform or just a slight elevation in a nearby field.

Points of attention:

- **Study, measure, map and record house platforms in the *context* in which they occur.**
- **Is the shape of the platform round or rectangular?**

Generally speaking, round means Gaelic-Irish and rectangular means Anglo-Norman, Late Medieval or Modern. This is, of course, only a rough guideline, and the transition seems to have actually taken place a century or so before the arrival of the Anglo-Normans. The final diagnosis will have to be left to the excavator. The few Neolithic and Bronze Age house sites that have been found represent either type.

Curiously, any houses found in association with *souterrains* (late Iron Age/early medieval) were usually rectangular.
- **Does the platform allow the recognition of external walls, and perhaps internal walls and a (collapsed) fireplace?**
- **Is there a low stone wall, perhaps partly covered by vegetation?**
- **Is a stone dwelling or outhouse constructed in line with traditional local practice?**

Stone buildings in the stony regions of the west of Ireland are nothing unusual, but in some eastern counties where mud-wall buildings were the rule up to quite recent times, a stone building indicates a building of some significance or a privileged owner.

But a mud-wall house may also have had a stone foundation!

- **Is there an outline of upright stones?**
Upright stones were sometimes used as wall facings.
- **Is the house platform terraced into a steep slope?**

Cultivation ridges

When looking at archaeological remains, whether we look at castles, churches, even stone cottages, modest as they may be by today's standards, we are looking at the dwellings or property of the better-off. The poor lived in dwellings made from sticks and mud, sod, grass or turf that left little or no trace in the landscape. There are, of course, exceptions, as in the stony parts of the Irish west, but they are few and far between. Famine ridges may be one of those exceptions. They are reminders of the life of the very poor.

The population growth of the late eighteenth and pre-Famine nineteenth century forced more and more people into marginal areas, whether locally in eastern counties into the nearby bogs or on a national scale into the heretofore barely inhabited regions of west Galway, Mayo and other western counties. Luckily, the potato allowed these settlers to survive in these inhospitable areas, if only in the short term.

On soils where drainage was poor and the land too wet to grow crops 'on the flat' – and this was the rule rather than the exception – the soil was mounded up into ridges to provide drainage channels between the ridges. These systems of ridges and drainage channels are also referred to as lazy-beds. Cultivation ridges were created not only in potato plots but also in fields where wheat and other cereals were grown. Ridges were made with a spade, a curved digging tool varying in shape in the various counties and called a *loy* in some parts. (Because of its horizontal action, this type of spade is sometimes said to be a 'human plough'.) For landowners it was often more economical to employ men with spades to 'plough' the land than to use teams of draft animals. It is said that sixteen men could work an acre (0.4 ha) in a day.

Poor families who lived off marginal land, i.e. land that was just barely suitable for cultivation, often at the lower slopes of hills or mountains, were the first to leave their land during the Great Famine of 1845-47. The diseased potato crop

was left in the ground and the ridges can still be seen. But also fertile, productive land in eastern parts were sometimes left to overgrow with grass following previous cultivation, and ridges can still be detected in permanent, 'old' pastures. Their abandonment is unlikely to be linked to the Great Famine of the 1840s but to the fact that livestock farming became more profitable than tillage farming. (Curiously, it has recently been shown that the Curragh of Kildare, which documentary sources say was never tilled, contains numerous cultivation ridges! These must be ancient if history is unaware of them.)

Points of attention:

- **Note location**
- **Are the ridges on marginal land and now reverted to heather, bracken and rough grazing?**
- **Are they on good land, now utilised as pasture land?**
- **To what elevation do the ridges extend?**
- **What is the present vegetation at that altitude?**
- **Measure the field/plot and map it.**
- **Measure the width of the ridge (the elevated part) and decide whether it was a potato ridge or a grain ridge.**
Potato ridges were typically about one metre in width (the raised part), while the grain ridges were much wider (2-2 ½ metres).
- **Are there straight as well as curved ridges in the area?**
- **Do the ridges extend across walls/ditches/roadways, indicating a greater age than the latter structures?**
- **Does the landscape show any interesting pattern of ridges, perhaps one field intersecting with another?**
This may indicate different age.
- **Do the fields show any other interesting patterns?**
- **Are there *house platforms* or other signs of settlement in the vicinity?**

The Stone Age

The *Stone Age* is the time in human prehistory where stone was the most important material for the manufacture of tools, weapons and to some extent ceremonial artefacts. At least, the articles that survived the ravages of time and fell into the hands of archaeologists, were mainly of stone. It stands to reason that other materials such as wood, bone, deer antler, as well as plant and animal fibres played an important part too, but these organic materials were more prone to decay.

The Stone Age is subdivided as follows:

■ The Old Stone Age (Palaeolithic Period)

The Palaeolithic people were the big game hunters. They roamed the post-glacial tundra of northern Europe, hunting in groups or gangs for mammoth, woolly rhino, aurochs and other large mammals. There is no convincing evidence that Palaeolithic man ever set foot in Ireland.

■ The Middle Stone Age (Mesolithic Period)

When the climate warmed up and the northern tundra was gradually replaced by forest, the herds of large animals receded northward and eventually disappeared altogether. Humans changed their lifestyle accordingly and lived in small forest clearings but preferably along the banks of rivers and on the shores of lakes, hunting for small animals, waterfowl and other birds. Fish played an important part in their diet and some archaeologists believe that in Ireland Mesolithic humans lived on fish almost exclusively.

These people were nomads with no fixed settlements. They left a legacy of stone tools of two distinct types (with no sign of transition or overlap) which shows that there were actually two distinct Mesolithic cultures in Ireland. They did not, however change or leave their mark on the landscape either by clearing forests for agriculture nor by constructing any permanent buildings or monuments.

■ The New Stone Age (Neolithic Period)

These were the first farmers. They lived in settled communities and through their farming activities were able to produce a surplus of food which allowed some of the manpower to be released for work unrelated to food production. They left their imprint on the Irish landscape by clearing forest, building megalithic tombs and ceremonial enclosures, sometimes stone dwellings and even fencing off their fields with permanent stone walls.

Megalithic monuments of the Stone Age

The word *megalith* is derived from the Greek and means a *big stone*; it is used by archaeologists to denote large stones in stone monuments. By and large megalithic monuments (of the tomb type) belong to the Neolithic period though the tradition was carried on to some extent into the Early Bronze Age.

It is sometimes difficult to classify megalithic monuments, or indeed other prehistoric structures or landscape features, with any degree of certainty as Neolithic, Bronze Age, Iron Age, Early Medieval etc. Recent work by archaeologists has shown all-too-often that earlier chronologies had to be modified in the light of more recent work and more modern dating methods. Also, there is often a considerable degree of overlap in time, so that all categorisations should be taken with a degree of caution. Wherever possible, some brief notes on age have been given under the various headings.

Apart from tombs that could be classed as *megalithic*, there are some non-megalithic burials, earthen enclosures, field systems and even some house foundations known from the Neolithic period.

The megalithic tombs of the Neolithic period in Ireland are divided according to their form and mode of construction into five major types.

- the **court tomb** (formerly known as court cairn, court grave or gallery grave; also horned cairn,)
- the **portal tomb** (formerly known as dolmen or portal dolmen. Popularly still known as dolmen.)
- the **passage tomb** (formerly known as passage grave)
- the **wedge tomb** (formerly known as wedge-shaped tomb, wedge-grave or wedge-shaped gallery grave; sometimes grouped in with portal tombs as dolmens)
- the **Linkardstown cist**

A common factor seems to be that they are nearly all communal burials of cremated corpses (the Linkardstown cist is an exception). In the following Bronze Age individual burials predominate and inhumations of unburnt bodies are not uncommon, though cremations with ashes placed in urns frequently occur. It must

be remembered that it is seldom possible to identify the type of tomb by surface investigation when it is covered by a mound, and there are a large number of earthen *tumuli* and stone mounds (*cairns*) in Ireland that have not been excavated. These unidentified or unclassified mounds are nonetheless worthwhile subjects for investigation. It is important that tumuli and cairns not yet represented in the Sites and Monuments Record be mapped and recorded.

Tumuli and cairns

Mounds of stones or earth often but not always conceal under or within them burial chambers or megalithic tombs. These chambers, and indeed the mounds themselves are called 'graves' or 'tombs' because, on excavation, the remains of human burials have been found within them in the vast majority of cases. (The word *tomb* is now generally preferred. The word *grave* has the connotation of an underground burial, while these ancient tombs are mostly above ground.)

It is quite likely that the great megalithic tombs served other than funerary functions. Many probably were, rather like a medieval cathedral, places of ceremony or ritual (religion) and also symbols of status, as well as burial places for important people.

In Ireland, earthen mounds are often called *tumuli* (sing. *tumulus*) and stone mounds, *cairns*, though this distinction is not always adhered to. In Britain, the term *barrow* denotes an earthen mound, and the word is used here as well, though on a limited scale. While most earthen mounds classed as *tumuli* would have a certain component of stone, *barrows* are piled up (almost) exclusively of earth.

Points of attention:

- **Note location.**
This may give an indication as to the type of tomb it contains.
- **Note whether the mound under investigation is a stone or earthen mound.**
This may not be as easy as it seems. Where vegetation has been able to establish itself on a stone cairn, it may over time have created its own soil cover, so that the appearance is now that of an earthen tumulus. Also, some mounds were constructed of alternating layers of stones, turves and/or earth,

and in some cases stones were piled upon an earthen mound to cover later burials.

- **Note shape: round/elliptical/D-shaped.**
- **Measure and draw the tumulus/cairn, with rough cross-section giving approximate height.**
- **Is there an obvious entrance?**

Tumuli that have not been excavated are usually in a collapsed state and the entrance would be obscured.
- **If so, note orientation of entrance**
- **Is the tumulus/cairn surrounded by a kerb of large stones?**
- **Is there any indication that the tumulus/cairn may have collapsed and earth or stones may now be covering the kerb?**
- **Is there an earthen bank or other feature surrounding the mound?**

Careful: The surrounding enclosure, if there is one, may be of a later time. Tumuli and cairns were sometimes incorporated into the structures of a later culture.
- **Are there any decorations visible on exposed stones?**

Decorations including chevrons, triangles, squares, lozenge shapes, wave lines, circles, spirals or other patterns have been found in and around Neolithic passage tombs.
- **Are there any more tumuli/cairns in the vicinity?**

Tumuli/cairns of the passage tomb type tend to occur in groups, so-called *cemeteries*.
- **If there is a group of tumuli –**
 - **Is the cemetery in a region that would have been attractive from the point of view of an early farmer?**
 - **Is it on remote mountain tops?**
 - **Is there an obvious reason why prehistoric people might have chosen this particular region (either the actual location or its apparent agricultural hinterland) as a preferred settlement site?**
 - **Are there any other prehistoric monuments, perhaps from a later era, in the vicinity?**

Favourite locations were often chosen by successive cultures.
- **Identify type of tomb as –**
 - ***Court Tomb***
 - ***Portal Tomb***
 - ***Passage Tomb***
 - ***Wedge tomb***

- **Cist Burial**
- **Barrow**
- **Unclassified?**

To decide on which tomb type is underlying the tumulus will not often be possible, except where the mound has collapsed or been excavated, where the internal structure is denuded or where the site is managed and made accessible to visitors.

Court tombs

Court tombs are the earliest type of megalithic tomb in Ireland. They consist of a burial *gallery* built of large stones with an entrance consisting of a pair of *orthostats* (upright stones) and a lintel across them. Outside the portal is an open, i.e. unroofed, forecourt. The gallery is or was originally covered by corbel stones and consists of one or more burial chambers. There may also be a second court.

Points of attention

- **Note location: upland, lowland? Prominent - highly visible?**
- **Note underlying soil type and that of the agricultural hinterland: any conclusions regarding the agricultural potential of the land?**
Light, well-drained soils, suitable for early tillage farming and stock raising, seem to be preferred.
- **Note shape of cairn (if visible).**
Easier if uprights (see below) were used.
- **Identify type of stone used.**
- **Identify source of stone: local quarry?**
- **Is the cairn edged by a kerb of upright *megaliths* (massive stones) or drystone masonry, or a combination of the two?**
- **Note orientation of entrance.**
An easterly orientation is common.
- **Take measurements: length/width of cairn (external).**
- **Take internal measurements, as far as accessible**
- **Note shape of court: semicircular/U-shaped ('open court-tomb'), (almost) closed ('full court-tomb')?**
- **Does the gallery consist of more than one burial chamber?**
 - **If so, how are the separated from each other?**

- **Sill stone(s)?**
- **Septal stone(s)?**
A septal stone is a flat stone slab higher than a sill stone, often completely closing the gap between the *jamb-stones*.
- **Any (pairs of) chambers set in the cairn besides the main galleries? If so, are they –**
 - **entered over sills or closed off by septals?**
 - **opening directly to the edge of the cairn?**
 - **linked to the edge of the cairn by a passage?**
- **Any chambers branching off from the main gallery?**
- **Where the roof is still intact: is it corbelled?**
- **Is there more than one burial gallery leading off a single court?**
- **Is there a second court?**
Tombs with two courts and two chambers are referred to as ***dual court-tombs***.
- **Are there any other megalithic tombs nearby?**
 - **If so, are they court tombs or tombs of a different type?**

Portal tombs or dolmens

The word *dolmen* is derived from *Breton*, a Celtic language spoken in Brittany, France, and similar to Welsh, and means a *stone table*. We are using the word ‘portal tomb’ here, in accordance with current practice, even though the word ‘dolmen’ is still widely used in lay circles and in tourism. Portal tombs invariably have two *orthostats* (upright stones) that mark the *portal* (the entrance) to the burial chamber. The simplest form of a portal tomb, sometimes described as a *tripod dolmen*, is made up of three orthostats (two *jamb-stones* and a *backstone*) and a *capstone*. Others have more than three orthostats and some have two capstones. The capstone normally slopes down from the portal (front) towards the back, though exceptions are known.

There are several vernacular names in use apart from the word ‘dolmen’, such as ‘Diarmuid and Grainne’s bed’ or ‘Druid’s Altar’. Another Gaelic word is *cromlech*, which may refer to other forms of prehistoric tomb or even a stone circle; it is rarely ever used nowadays but may still be found on older maps or on signposts.

The term *portal tomb* is now generally preferred by archaeologists.

The portal tombs seen in today's landscape are in most cases only the skeletons of the actual tomb; they are structures of large stones and slabs from which the covering or partially covering mound of earth or stone has long been removed or eroded away.

Points of attention:

- **Note location:**
- **Why was it placed *here*?**
- **Prominence of place?**

While the distribution of portal-tombs greatly overlaps with that of court tombs, the former are more often found in valleys, often close to rivers or streams. It has been suggested that the builders of this tomb type ventured further into heavily wooded land with heavier soils, while the court tomb builders stayed on the lighter upland soils.
- **Availability of stones?**

Who would have volunteered to drag the heavy capstone up to the top of a mountain?
- **Note orientation.**
- **Note number of *orthostats* (upright stones/slabs).**
- **Measure length, width and height of tomb.**
- **Are the portal stones well-matched in height and shape?**
- **Compare the height of the portal stones (jamb-stones) with the height of other orthostats in the monument: determine the slant of the capstone, if any.**
- **Does the more massive end of the capstone rest on the jambstones or on the backstone(s)?**
- **Estimate the weight of the capstone.**

The heaviest capstone of a portal tomb in Ireland is that of *Brownshill Dolmen* near Carlow; it was believed to weigh some 100 tonnes, but recent estimates are much higher (150 tonnes). The heaviest capstone in Europe was always thought to be one in France, calculated to weigh around 130 tonnes (but maybe that weight has been revised as well?).
- **One capstone or two ?**

A small number of Irish portal tombs have two capstones, usually at different levels; the rear one being smaller and lighter than the main capstone.
- **Are the two capstones supported independently?**

- **Or is one resting on and supported by the other?**
Any sill or septal stone between the portal stones?
- **One chamber or two?**
Two-chambered portal tombs are rare.
- **More than one portal tomb in close association?**
- **More than one portal tomb within the same cairn?**
- **What are their relative sizes?**
- **What is their relative orientation?**
- **Any traces of a tumulus or cairn that may have covered the tomb at one time?**
- **Any trace of a court leading off from the portal?**
- **Draw the tomb.**
- **Look for other prehistoric or later monuments in the vicinity.**

Passage tombs

Passage tombs are among the most striking megalithic tombs in Ireland and beyond, the most internationally famous one being the great tomb of Newgrange

Typically, a passage tomb is entered by a long *passage*, lined with orthostats and covered by lintel stones. The tomb is covered by a round mound or cairn. The passage leads into the central burial chamber which is commonly round, trapezoid, polygonal or cross-shaped. The ceiling of the burial chamber is usually corbelled and may be quite high. Many passage tombs are highly decorated.

Points of attention:

- **Note location**
- **Note external features as under Tumuli and Cairns**
- **Is the tomb located in a prominent position?**
- **If so –**
 - **is it on a remote mountain top?**
 - **is it on a locally prominent hill?**
- **Does the tomb stand alone or is it part of a group of passage tombs, a so-called cemetery?**
Tumuli of the *passage tomb* type tend to occur in groups or cemeteries.

- **Are there other Neolithic monuments in the immediate or greater vicinity?**
- **Are there any Bronze Age or later monuments in the immediate or greater vicinity?**
- **Are there any other prehistoric monuments, perhaps from a later era, in the vicinity?**
Favourite locations were often chosen by successive cultures.
- **Is there a definite passage into the tomb?**
Some passages may be very short and hardly recognisable for what they are, or even absent. While it may seem paradoxical to have 'passage tombs' without passages, the ones so identified, such as those near Sligo, definitely belong to the same culture and tradition.
- **Is the passage segmented by the insertion of sills?**
- **Do the upright stones support the lintels?**
In Newgrange the lintels are supported by a drystone wall behind the orthostats.
- **Is there a definite chamber?**
There may be just a slight widening at the end of the passage ('*undifferentiated passage tomb*').
- **Is there a flagstone floor to the passage or the chamber(s)?**
- **Note shape of burial chamber:**
- **round/rectangular/trapezoidal/polygonal?**
- **one or more side chamber(s)/end-chamber leading off from the main chamber(s)?**
- **Any sills separating chambers?**
- **Note type of ceiling: corbelling/slab cover?**
- **Is there any evidence of fire (soot-covered wall/ceiling) in the tomb?**
Cremations would have taken place outside and the cremated bones then placed in the burial chamber.
- **If there are soot marks, could they be from candles used by visitors in modern times?**
- **Are there any stone basins in the burial chamber(s)? If so –**
- **Where exactly are they placed?**
- **Does the cairn/tumulus contain more than one passage? If so -**
- **are the passages at right angles, opposite or otherwise?**
- **Note the orientation of passages in regard to sunrise/sunset during summer/winter solstice or the equinoxes.**
- **Is there a roof-box?**

This seems to be unique to Newgrange.

- **Is there a stone kerb?**
- **Note and record decorations – inside/outside**
- **Take measurements.**
- **Draw diagrams.**
- **Make a photographic record (where allowed).**

Wedge tombs

Wedge tombs are the most numerous type of all megalithic tombs in Ireland. They go back to the Late Neolithic but are commonly associated with the Early Bronze Age.

Points of attention:

- **Note location –**
- **in relation to soil type and local topography**

The wedge tomb builders showed a preference, similar to the court tomb people, for light upland soils. There is an emphasis on pasturage (especially the excellent winter grazing in north-west Clare [The Burren]).
- **in relation to copper deposits**

West Cork, south-west Kerry, north Tipperary (Silvermines), north Mayo, parts of County Wicklow and the County Waterford coast are all areas of copper exploitation, some since the Bronze Age.
- **Compare the distribution map of wedge tombs with that for Food Vessel burials.**

The distribution of the two types is complementary (almost to the point of mutual exclusion).
- **Note orientation.**

The entrance to the tomb usually faces south-west.
- **Are the side walls parallel or converging?**

Remember the name!
- **If converging, which way?**
- **Are the side walls built of a number of orthostats or a single slab?**

Probably depends on the availability of suitable stones to the builders. Flat slabs are (and were then) abundant in The Burren of County Clare.
- **Note roof construction -**
- **Are the roof slabs resting directly on the side walls?**

- **Are there pad-stones between side-stones and roof?**
Depending again on stones available (The Burren!). Some of the smaller wedge tombs built from single slabs resemble very large cists burials.
- **Is the roof corbelled?**
- **Is the roof-line level or sloping?**
 - **If it is sloping, then which way?**
- **Are there one or two chambers inside? If two –**
 - **Are both chambers similar in size?**
- **How are they separated –**
 - **By a sill?**
 - **By a septal stone?**
 - **By a drystone wall?**
 - **By stone jambs?**
- **Any stone(s) closing off the entrance?**
 - **If more than one, how are they arranged?**
- **Any more stones outside the actual chamber(s)?**
 - **How are they arranged?**
 - **Parallel to side-stones and end-stone?**
 - **In a U-shape, enclosing the chamber and its cairn?**
- **Is there a single or a double outer wall?**
- **Are there any buttresses?**
- **Is there a frontal facade? If so –**
 - **Is it flush with the entrance?**
 - **Is it outside the entrance?**
- **What is the distance from the actual tomb?**
- **Any traces of a cairn/tumulus that might have once covered the tomb?**
 - **If so, can the shape of the cairn still be identified? Is it –**
 - **round?**
 - **oval?**
 - **D-shaped?**
- **Any sign of a kerb?**
Kerbs around wedge tomb cairns/tumuli are not uncommon, but not always easily visible.

- **Take measurements.**
- **Draw a plan of the tomb.**
- **Make a photographic record.**
- **Look for other megalithic monuments in the vicinity. If present, note type, distance and bearings.**

Cist Burials

(Should be pronounced *kist*. The term is probably derived from the German word *Kiste*, which means a [usually wooden] box.) - A cist tomb is made up of rectangular slabs of stone or short, vertically placed stones and is rectangular or polygonal in shape. It is found either in the ground or on the surface. If on the surface then the cist is usually covered by a *cairn*. Short cists contain crouched burials or burials with ceramic pots while long cists contain extended burials. There are exhibits of cist graves in the National Museum in Kildare Street, Dublin.

Most cist burials are dated within the Bronze Age, though the **Linkardstown Cist** has distinct Neolithic features and seems to be connected to the passage-tomb tradition. It contains Neolithic pottery, is built of heavy ('megalithic') stone, sometimes (partly) corbelled and shows a preference for prominent (if mainly lowland) settings. The mound form is also reminiscent of the passage-tomb. However, they usually contain single inhumations as opposed to multiple cremated burials.

It is most unlikely that you will discover exposed cists on the land surface, but there is a chance that they may be accidentally revealed during ploughing or building excavation, road construction, gravel quarrying etc.

There is an unusually large and impressive cist tomb in the Phoenix Park. It is not in its original place but has been moved to a location inside the Zoological Gardens.

Barrows

Barrows are small, round earthen burial mounds, made up almost solely of earth, 10-15 m in diameter; often with a ditch surrounding them and sometimes an

external bank. The mound and/or ditch/bank can be very slight, so that the barrow may be only barely noticeable. Barrows appear to have been used for burials from the late Stone Age right up to the early Iron Age.

Different types of barrows have been identified in Ireland:

- ***bowl barrow*** - has a fosse immediately around base of mound, or no fosse
- ***bell barrow*** - has a flat space between fosse and mound
- ***saucer barrow*** - a low mound surrounded by a ditch and outer bank
- ***ring barrow*** - a very slight or non-existent mound surrounded by a bank with inner ditch.

There is no clear dividing line between large barrows and ritual sites.

Barrows have more than other, more prominent field monuments become the victims of levelling and ploughing-out; but areas that have been spared intensive farming operations, like The Curragh of Kildare, still show an abundance of barrows.

Points of attention:

- **Note location**
- **Apply suitable procedures as under *tumuli and cairns* and *ringforts***
- **Is the earth that constitutes the mound dug up from the ditch (fosse) or brought in from elsewhere?**
Careful: the fosse may have silted up!
- **If the diameter is small (<15m) and a bank is present, could it have been a roofed area?**
- **Look for clusters of barrows**

Pit burials

Pit burials may date from the Stone Age or from later times; exact dating has to be carried out by experts.

Points of attention:

- **Keep an eye out at gravel pits and other vertical surfaces (e.g. roadside banks) for disturbances in the profile of the deposits and for the presence**

of bones or *shards* (pieces of pottery). Watch out wherever bulldozers are at work.

➤ **Remember:**

- ***Any find must be reported immediately***
- ***The site must not be interfered with***
- ***Finds must be left in place (except where there is a danger of outside interference)***

Henge monuments

Henges are large enclosures, 50 to nearly 300m in diameter, and usually surrounded by an inner ditch and bank. Excavations have shown that there were often wooden posts planted around the perimeter. Perhaps because of the extant example of Stone Henge in England, some experts believe that wooden henges also had cross-bars connecting the tops of poles. The etymology of the word is related to *hanging* and therefore implies the presence of a lintel or cross-bar. There is of course no way of verifying this hypothesis. Henge monuments seem to have been used for ceremonial purposes which may have included public burials. They belong to the Late Stone Age and Early Bronze Age.

Stone Circles are also sometimes referred to as '*henges*', but there are of course no lintels. So Stonehenge is really the only known stone henge.

Points of attention:

➤ **Note location.**

These henges are often found in (locally) prominent locations on high ground, though some are on slopes or at the bottom of river valleys.

➤ **Is it anywhere near a passage tomb?**

There seems to be a mutual attraction, though the passage tomb probably came first.

➤ **If so, take bearings and distance.**

➤ **Is the enclosure round or oval?**

➤ **Is it an incomplete circle/ellipse?**

➤ **See if it was once a complete ring.**

Aerial photography might reveal.

➤ **Or could it be that it was never completed?**

- **Is the enclosure marked off by a fosse or by a bank, or both?**
Fosse is the French word for a ditch or drain. It is generally used in this context, while in the context of medieval castles the term moat is preferred, indicating water-filling.
- **Is the fosse inside or outside the bank?**
 An inside bank would improve the defensive qualities of a fort or enclosure. Ritual/ceremonial sites typically have an outside bank.
- **What does that say about its possible usefulness as a defensive structure?**
- **Note and draw the profile of the ditch-and-bank; make allowance for the fact that the bank is now lower and the ditch shallower, due to natural factors (slippage) or artificial levelling.**
- **Is the top of the bank rounded or flat?**
- **If a fosse is absent, where was the earth for the bank sourced? From inside/outside? Compare levels.**
- **Is there an obvious entrance to the site? More than one?**
 - **What is the orientation of the entrance(s)?**
 It is most likely east or west.
- **Are there any archaeological features within the enclosure: standing stones/burial mounds/traces of buildings etc.?**
 - **If so, are they placed centrally or off-centre?**
- **Measure internal and external diameters of the enclosure, also shortest and longest if the feature is oblong.**
- **Measure height of bank etc.**
- **Make drawings (including a drawing of the profile).**
- **Take photographs from different angles.**

Bronze Age monuments

The Bronze Age in Ireland began about 4,000 years ago and lasted for some 1,500 years. The most common form of megalithic tomb of that period was the **wedge tomb**, although it goes back to Neolithic times. Other burials include the **cemetery mound**, where individual burials were placed in the sides of an earthen mound, and the *flat cemetery*. Single burials have also been recorded. **Boulder burials** are largely associated with **stone circles**.

In esker country, natural mounds were often utilised as burial mounds. Neolithic tumuli have been used in the same way by later cultures.

Crouched burials belong mainly to the Early Bronze Age, while extended single burials are difficult to date and might be as late as the Middle Ages.

Apart from burial sites, there are Bronze Age megalithic monuments which are generally believed to have had some ritual or ceremonial function – perhaps combined with a funerary function (though the interment may be of a later date) – but their exact purpose must always remain a mystery. They include *standing stones*, *stone alignments* and *stone circles*.

Standing stones

These standing stones are also known as monoliths. The word is derived from the Greek and means a single stone (not necessarily upright). Another term, *menhir*, is sometimes applied. It is a Breton-Celtic word.. Irish terms known in parts of the island include *gallán*, *dallán* and *liagán*.

It is difficult to ascribe a standing stone to any particular period or culture, since erecting an upright stone must have appeared to many people at different times and in different places to be a simple and obvious and effective way of marking an important place or making a commemorative statement. Nevertheless, Standing stones, Stone Alignments and Stone Circles are usually thought to be Bronze Age monuments.

Points of attention:

- **Note location.**
- **Note type of stone.**
- **Was the stone quarried locally?**
- **Is the stone a natural shape or does it appear to be deliberately shaped by human hands?**
- **Is there an earthen ring around the stone?**
- **Measure the height of the stone above ground and diameter of base**
- **Estimate the depth to which the stone is buried.**
- **Estimate the weight of the stone.**
- **If the stone is flat: does it have a definite orientation of its long axis?**
- **Any manmade features on the stone –**
 - **decorations?**
 - **ogham script?**
 - **cross(es) engraved/scored/carved?**
Some ancient standing stones were 'converted' in early Christian times and had a cross engraved on them.
 - **any other decorations?**
 - **hole drilled through?**
- **Any association with other archaeological sites?**
- **Is there any trace of a structure (e.g. cist) at its base?**
- **Is it a possible leftover of an ancient boundary wall or gate post?**
- **Or is it just a scratching post for cattle?**

Stone alignments

Stone Alignments (Stone Rows) are groups of standing stones arranged in one or more lines; they are connected with prehistoric ritual. Concentrations of stone alignments are found in Counties Tyrone/Derry/Fermanagh in the north and Cork/Kerry in the south. Alignment of two stones are referred to as Stone Pairs.

Points of attention:

- **Apply points listed under *standing stones***
- **Note location.**
- **Any association with other archaeological remains?**
In Northern Ireland they are frequently associated with *stone circles*.
- **Count number of stones.**
- **Note orientation of row.**
- **Compare orientation with that of *stone circles* (i.e. entrance to) and *wedge tombs*.**
- **Take measurements –**
 - **distance between stones**
 - **length of row**
 - **height of individual stones**
- **Are they of similar height or is there a gradient in the alignment?**
 - **If so, which way?**
- **Are any of the stones inscribed or otherwise marked/shaped by human hands?**
- **Is it something else entirely?**
It may be something as mundane as the remnants of an old field fence.

Stone circles

It has been suggested that stone circles seem to follow the tradition of earlier Henge Monuments. Most seem to date from the early Bronze Age. Some have burials associated with them, while others must have had a purely ritual purpose.

The circles of a typical group in Cork/Kerry consist of 5 -17 stones and have a diameter of 2.5 - 17 metres. A cremation burial (possibly sacrificial burial) is often found under a boulder (as in *boulder burials*) or in a pit in the centre of the circle. Circles in mid-Ulster are made up of smaller stones but greater numbers. They are often found in upland areas, sometimes overgrown with peat. Circles in Leinster (East Kildare/West Wicklow) and other parts do not quite fit the typical pattern. Some of these circles are quite large, but their classification is difficult and they are sometimes counted among the henges.

Several stone circles are known as *Piper's Stones*. They typically have an outlying standing stone. The outlier is said to be a piper playing to a circle of dancers. Because they have danced on a fairies' sacred ground they have been turned to stone by the fairies.

Some stone circles are locally known as *Griddle Stones*, which seems to be a corruption by non-English speakers of *Druidal stones*.

Points of attention:

- **Note location.**
There is some close association with the copper-rich areas in the south-west of Ireland. But stone circles are found in other locations as well.
- **Compare their distribution with that of *wedge tombs***
- **Note shape of circle: is it –**
 - **round?**
 - **oval?**
 - **D-shaped?**
 - **irregular?**
- **Count the number of stones that make up the circle.**
- **Are they upright stones set in the ground or boulders placed on the surface?**
- **Are the stones contiguous (touching each other) or spaced out?**
- **Are there circles within circles? If so, are they –**
 - **concentric?**
 - **excentric?**
- **Is the stone circle surrounded by an earthen bank/bank-and-ditch –**
 - **outside the stone circle?**
 - **inside the stone circle?**
- **Measure diameter(s) of circle and calculate enclosed area.**
- **Locate the entrance.**
Two non-contiguous upright stones (*orthostats*) of similar height, called the *portal stones*, usually mark the entrance.
- **In what way do the portal stones differ from other stones in the circle?**
 - **Are they the tallest stones of the monument?**
 - **Are they well-matched?**

- **Note orientation of entrance.**
The entrance is normally from the north-east, but it may also point at a local landmark.
- **Identify the *axial* stone.**
The axial stone, where present, is to be found opposite the entrance. It is typically a flat-lying stone (called a recumbent stone) and the lowest stone in the circle.
- **Is the long axis of the axial stone *radial* (pointing to the centre) or *tangential* (roughly in line with the circumference at that point) to the circle?**
- **Is there a *monolith*, a *boulder burial* or other feature *within* the circle?**
- **Is there an *outlying* monolith (an *outlier*)?**
- **Are there outlying *stone alignments*? If so, is their orientation –**
 - ***tangential*?**
 - ***radial*?**
 - ***without any apparent orientation in relation to the circle*?**
- **Are there any cairns or other features of interest nearby?**
Some circles are closely associated with burial mounds (tumuli or cairns) and other Stone Age monuments.
- **If so, note distance and direction.**
- **Note special features –**
- **any stones inscribed/decorated?**
 - **any stones a peculiar shape?**
- **Careful: They wouldn't be the residual upright stones of a stone hut, the kerb of a tumulus or the leftovers of a partially demolished stone-fort?**
Even the entries on Ordnance Survey maps may sometimes have it wrong!
- **Compare different stone circles in the area/in different areas.**

Boulder burials

Boulder burials (sometimes called '*boulder dolmens*') consist of a large, truly 'megalithic' capstone, resting on three or more *very low* boulders. They are found in a rather restricted area in west Cork and Kerry but are rarely known elsewhere and may be associated with *stone circles*.

Because of their occurrence in one of the main Bronze Age copper mining areas and their close associations with Bronze Age circles, they are generally

placed within the Bronze Age; other attempts at dating have been rather unsuccessful.

Points of attention:

- **Note location and assess external features as for *portal tombs* and *wedge tombs***
- **Take measurements of covering stone.**
- **Note similarities and differences to a simple *passage tomb* or a large *Linkardstown cist*.**
- **Any association with a *stone circle*?**
Some are found within, others near stone circles; a few are found in isolation.

Fulachta fia

These were ancient cooking places. Excavation can show a wooden trough or a wood-lined rectangular pit in the ground which would typically hold about 400-500 litres of water. The word *fulacht* means a cooking place, while *fia* could have been derived either from *fiadh* or *fian* and could refer to a *deer*, *out of doors* or *of the wild*. This infers that successful hunting parties would have celebrated with feasts at these places.

The pits were filled with water into which heated stones were dropped to bring it to the boil. A large joint of meat was wrapped in straw and then lowered into the boiling water. It was kept boiling by adding more red-hot stones at intervals. The spent stones (which were usually split by the sudden cooling when placed in the water) were afterwards taken out and tossed around the area of the pit. They accumulated over time to form a crescent-shaped mound near the pit. These mounds of stone would now be overgrown with vegetation, though exposed mounds of stone can be seen in The Burren of County Clare. The stones are broken and blackened from having been heated in a log fire.

It is believed by some that fulachta fia may have served as bathtubs. A recent theory says they were used for brewing beer.

The majority of fulachta fia have been dated to around 1 000 BCE, though some may go back to around 1 800 BCE (Early Bronze Age) and traditionally perhaps even down to Early Historic times.

Points of attention:

- **Look out for crescent-shaped mounds in the field.**
The typical shape has been described as crescent-, kidney- or horseshoe-shaped, but examples of circular and irregular shapes are also known.
- **Note location.**
- **Where did the people obtain the stones?**
- **Where did they get the water?**
Sources of stones and water should be nearby.
- **Take measurements.**
- **Draw/photograph the mound.**
- **Look for the cooking pit.**
It is unlikely that the pit is still recognisable without excavation, though there may be a slight depression in the ground. But don't start digging! However, a jab with a well-shod heel into the sod-covered mound should reveal loose stones which can often be easily broken by hand. They may also be blackened.
- **Study reconstructions of a cooking pit.**
There are reconstructions at Craggaunowen, County Clare, Ballyvourney, County Cork, and in other places. Experiments have shown that cooking in a fulacht fia actually works!

Ogham stones

Ogham stones are upright stones carrying an inscription. The script, *ogham* or *ogham script*, is derived from the Latin alphabet. Each letter is made up of up to five strokes, running vertically upward on one side of or across one straight stem line (usually one edge of the stone) and, if necessary, over the top and down another. The inscription is in early Irish and normally gives the name of a man and that of a male ancestor ("son of" or "son of the son of"). They may be commemorative stones or perhaps markers of property.

Ogham stones are often found in association with early Christian monasteries.

Points of attention:

- **What way does the script run?**
It usually runs up one edge, then across the top and down another.
- **Can you decipher any of the script?**
Postcards showing the ogham alphabet next to the Latin alphabet can be purchased in souvenir shops.

Forts

The word *fort* is a convenient English term used in reference to a great number of monuments which are widely distributed all over the Irish countryside. It covers everything from a fortified farmstead, or perhaps even a cattle enclosure, to a major military fortification.

The Gaelic words *lios* and *rath* usually refer to small forts with earthen banks while the word *dún* often, but not always, refers to a stone-fort or, in legend, to the residence of a person of high status. The term *dún* is also used in connection with promontory forts. The words *caiséal* and *cathair* are applied to the impressive larger stone-forts. These tend to be found in rocky terrain where it would have been difficult to cut a ditch; therefore they are rarely surrounded by a fosse. The latter two are Gaelic words originally derived from the Latin *castellum* and *castra*, respectively. *Caiséal* (cashel) is cognate with the English *castle*. *Castra* originally denotes a military encampment.

It must be noted that the term *mote* is also used in parts of the country, probably derived from the French-Norman *motte* (whose Latin ancestor is *mota*); and even more confusing when spelled *moat*, since a moat is the water-filled ditch or fosse around a medieval castle or homestead.

Not all monuments formerly referred to as "Iron Age forts" necessarily belong to the Iron Age. In fact, the majority of ringforts and stone-forts were built between the seventh and tenth centuries AD, and many were occupied right up to the Late Middle Ages and beyond. On the other hand, most hill-forts are now thought to have originated in the late Bronze Age, and some structures formerly regarded as hill-forts are now understood to have been ceremonial sites going back even further.

(It may be good to add a footnote to this: while the word *rath* originally refers to the rampart and surrounding ditch, the word *lios* denotes the area enclosed, though in later times the two have become more or less interchangeable).

Points of attention:

- **Look out for placenames containing elements like lis, liss, rath, dun, cashel, caher/cahir; also raheen, dooneen etc.**
- **There is a geographic preference for lis or rath, respectively, in different parts of the island. Which term is used in your area of interest?**
- **Look out for placenames containing the element mote. Is the origin of the name derived from a Gaelic-Irish or an Anglo-Norman field monument?**

Ringforts

Points of attention:

- **Note location.**
- **Is it near water/bog/swamp?**
Forts were often built near a wet area for better defence.
- **Note the quality of land that might have belonged to the fort.**
This is not too important as, in pre-Anglo-Norman times; wealth was expressed in the ownership of cattle and not in acreage. Land was available almost for the taking, and the quality of the land was of secondary importance
- **Is the plan of the enclosure circular, oval, square, rectangular, D-shaped?**
The vast majority of Irish forts are circular, though exceptions do exist. If the enclosure is rectangular or square, it may be a *moated site*, but rectangular forts are also known.
- **What is the slope of the site, if any?**
The slope of the site as well as of the house floor was often to the south-east.
- **Is it a *raised rath*?**
Sometimes the interior of the fort appears to be raised relative to the surrounding area; the interior of the *vallum* was filled in to create a surface raised above the level of the surrounding countryside. This could be simply a case of adding fresh layers of soil to make a new surface after a period of occupation, or there could have been a need to raise the area if the ground around it was wet or marshy.
- **Is it a *platform rath*?**
Platform raths were built more deliberately and did not grow gradually or casually as some of the raised raths did. Some experts believe that the higher platform raths (>3m) could be the Irish version of a pre-Anglo-Norman motte (see motte and bailey castles), though some of the known inauguration sites of Celtic kings also resemble great platform raths.
- **To distinguish a platform rath from a Anglo-Norman motte, look for the following:**

- **Concentric defences;**
- **Absence of a bailey;**
- **Occurrence in a non-Anglo-Norman contest;**
- **(In rare cases) is there an association with famous Irish historic/legendary sites.**

None of these points will, of course, provide conclusive evidence, nor need they all apply. Excavation alone will give the final verdict.
- **Does the rampart of the fort consist of an earthen bank or a stone wall?**
 - **If a stone wall, see also under *stone-forts***
- **Could it be a stone-fort resembling a rath with an earthen bank?**

Some stone-forts may no longer be recognisable as such. Where the wall has collapsed over time and become overgrown with vegetation, the stone-fort may now resemble a ringfort with an earthen bank.
- **Is there any evidence of stones used in the rampart?**

Even where the whole bank was not built from stone, stone may have been used to build a retaining wall. The walls-and-ditches visible in the landscape today could be the collapsed remnants of the former forts. It must be understood that in practically all cases, the former bank was much higher and the corresponding ditch much deeper. How were the steep slopes reinforced? Upright timbers, wattles, sods – or stones? Excavation will reveal the secret, but that is beyond the scope of our work.

There is much evidence that the faces of the ramparts were vertical in many if not in most cases.
- **Is there a fosse around it?**
- **Was there once a fosse that has silted up?**

Where the fosse is no longer visible as a depression on the land surface, the vegetation may indicate its former presence. Look for patterns of rushes, iris (yellow flag) and other damp-loving plants. Stone-forts rarely had fosses.
- **Wet or dry fosse?**

In low-lying sites the fosse would fill up with water, at least after substantial rainfall.
- **Is the fosse inside or outside the rampart?**

It is normally outside, though cases are known where it is inside. As some of these internal fosses still carry water, it is believed by some that the fort was in fact a cattle enclosure where the fosse provided the animals with drinking water. See also under *hill-top enclosures*, *henge monuments* and *ring-barrows*.
- **Is there more than one fosse with a bank (vallum) between them (or any combination of multiple fosses and/or banks)?**

Forts with two concentric banks around them are called *bivallate*, those with three, *trivallate*. The main earthwork/vallum/defensive wall is always called the *rampart*

- **If so, are the different sets of ditch-and-bank contiguous (i.e. one starting right where the other ends) or is there a level space between the outer bank and the inner fosse?**
Such a level space is referred to as a *berm* and would have served as a standing platform for the defenders of the outer bank.
- **Where was the entrance to the enclosure?**
There may be an opening in the bank, perhaps combined with a causeway across the fosse. Entrances tend to face east
- **Take measurements.**
 - **Diameter (from crest to crest of the rampart).**
Ringforts on average had a diameter of 30m, though this may vary from region to region. In some areas the average size is >40m. Larger forts may have been royal forts, especially if they are multivallate. Large univallate ringforts may have been Houses of Hospitality along an important routeway. Smaller structures make possible candidates for *barrows* or perhaps *crannogs* (if located in a dried-up lakebed).
- **If the plan is oval, measure the short and the long diameters.**
- **Measure height/depth of bank and ditch.**
These measurements would, after centuries of slippage and silting-up, no longer give realistic values, but they may form a basis for an educated guess.
- **In multivallate forts, compare the diameter of the inner (habitable) area with the overall diameter of the structure.**
The ratio may be surprising!
- **Could this fort have been a *crannog*?**
If the fort is small (<30m) and just inside the shoreline of a former lake or in a bog, it may well have been a crannog.
- **Is the fort conjoined with another one to form a figure-of-eight?**
- **Is there a *souterrain*?**
Souterrains are underground passages, usually covered with stone slabs. They may have served as cold-storage places, hiding-places or secret escape passages.
- **Look for remains of buildings.**
Buildings would have been constructed with mudwalls, wattle-and-daub or stone, which may have left an outline after collapse (see *house platforms*). In some cases forts may have marked the centres of settlements, so look for the remains of buildings both within and outside the fort.
- **Note the location of the building (central/peripheral within or outside the enclosed area).**
- **Round or square: Gaelic-Irish or Anglo-Norman?**
Before the arrival of the Anglo-Normans in the twelfth century, Gaelic-Irish buildings were usually round, while after that time most buildings tended to be

rectangular. (In a similar way, the outline of fortified farmsteads changed from round [ringfort] to rectangular [see *moated sites*] street systems in towns/monastic settlements from round to linear). But there were always exceptions!

➤ **Figure-of-eight?**

There was sometimes a 'backhouse' attached, accessible through the main room. If so –

➤ **Measure the dimensions of the house.**

➤ **Note the orientation of the house.**

The entrance was often from the south-east.

➤ **Look for the royal fort in your area.**

The baronies of Anglo-Norman times often reflect the former petty kingdoms (tuaitha) of Gaelic-Irish chieftains. The largest fort in a barony is the likely place for the former seat of the *rí tuaithe*. Royal forts were often bivallate (had two rings of earthworks) or trivallate. See also under hill-top enclosures.

If the royal fort cannot be found or identified, is it possible that the Anglo-Norman barons (as they often did) took it over and built a motte-and-bailey over it/ within it?

Stone-forts (stone ringforts)

If the rampart (main fortification) of the fort was made of stone then we are dealing with a stone-fort (cashel or caher/cahir). The wall was normally made of a facing of drystone work, filled in with a rubble core.

Despite the name and despite the impressive walls of some of them, stone ringforts, like the ordinary earthen ringforts, are primarily protected homesteads and not military fortifications. Still they did provide a degree of security to their inhabitants. Royal forts are larger and have more substantial walls.

Points of attention:

- **Apply procedures as outlined for the study of a *ringfort* as far as possible.**
- **What type of stone is used?**
- **Where was the stone obtained?**
- **Measure the height of the walls.**
- **Measure the thickness of the walls.**
- **Do the wall faces show batter (inward slope)?**

- **Is the inside of the stone wall stepped?**
- **Is there a wall-walk near the top?**
- **If so, would one be able to see over it easily?**
- **Are there any straight joints in the wall?**
If present, they may represent a gap left by the builders to give them access to the interior prior to the completion of their work.
- **Regarding the entrance: Is it –**
- **a neatly built gap in the wall?**
- **a lintelled aperture in the wall?**
- **Are there any chambers built into the wall?**
- **If so, make drawings showing their exact location, dimensions length, width, and height), access and other relevant details. Take photographs.**
- **Assess the quality of the drystone construction of the walls.**
- **Are there any earthworks surrounding the stone structures?**
- **Is there a rock-cut fosse?**
Very unlikely, but look for it anyway.
- **If the stone rampart has collapsed into a ring of rubble, is some of the former facing of the wall still preserved and identifiable?**
- **Any cheveaux-de-frise?**
A small number of stone-forts in Ireland, like Ballykinvarga in County Clare, but also the famous cliff-forts of the Aran Islands, like Dún Aenghus, have a ring hundreds or even thousands of upright stone spikes as part of their defence system. Their function was to slow down the approach of an attacker, though some experts believe they were merely for status.

Promontory forts and cliff forts

Promontory forts are fortifications typically found cutting off a steep-sided, narrow peninsula (promontory) jutting into the sea with a relatively short length of earthwork or stone rampart. Some promontory forts can be found inland, and a fine specimen is Caherconree near Tralee, County Kerry.

Cliff forts are usually D-shaped and are also found over sea as well as inland cliffs, the best known example being Dun Aengus on the largest of the Aran Island.

While sea-side promontory and cliff-forts are looked at by some experts as the fortified bridgeheads of an invading force (rather than the last-ditch retreat of an

attacked population), inland promontory and cliff-forts appear to have had a similar function as hill-forts, namely as places of refuge in times of danger.

Promontory forts featured in the Iron Age but their origins may date back to earlier times.

Points of attention:

- **Investigate and look for characteristics and features as under hill-forts (hill-top enclosures).**
- **Assess the cliff: would the sea have taken much away during the last 1 000 or so years?**
- **Any *chevaux-de-frise*?**
- **Is there a freshwater supply within/nearby?**
- **Assess the comfort factor: exposure to the elements etc.**
- **Was the fort habitable, or would it have merely been a place of temporary refuge?**

Hill-top enclosures

Formerly all classified as hill-forts, there are now two distinct classes recognised: ***hill-forts*** and ***ritual sites***.

Hill-forts are large fortified enclosures that make use of the defensive advantages of an elevated location. While many ringforts may also be placed on a hill-top, a hill-fort actually encircles the summit, with its defences following the contours of the hill.

Univallate (one rampart) hill-forts are mostly found in the north and east of Ireland, while the multivallate type dominate in the south and west of the island. There are also exceptions and overlapping regions.

True hill-forts have a defensive character, and since there is scarce evidence of continuous occupation, they may have served primarily as places of refuge during enemy attacks. Though formerly thought of as the quintessential Iron Age monument, they are now generally believed to date from the late Bronze Age (1,200 – 600 BC). This does not exclude the likelihood (or even established fact) that they were important places and tribal seats in later times. Some, like Grianán

Ailech,, County Donegal and Rathgall, County Wicklow, both multivallate hill-forts, had impressive drystone cashels, sometimes referred to as '*citadels*', built in their centres in Early and Late Medieval times, respectively.

Ritual Sites. Some large earthen hill-top enclosures that were formerly seen as hill-forts are now recognised by most experts as *ritual* or *ceremonial sites*, the larger ones having been *royal centres*. The ditch or *fosse* is inside the wall or bank, which makes no sense for a defensive structure. Stone-built hill-forts also occur – in stony places. Fosses are rare in these.

The most famous royal sites are Tara, County Meath, Dún Ailinne (Knockaulin), County Kildare, and Emain Macha (Navan Fort), County Armagh. Some of these ritual sites may even have their beginnings in Late Neolithic times, in the tradition of the *henge monuments*.

Points of attention:

- **Note location**
- **Why was this particular location chosen?**
- **Assess the defensive quality of the enclosure. Is the fosse inside/outside the bank?**
- **Is it a hill-fort or a ritual site?**
- **Is there a stone 'citadel' within a system of earthen fortifications?**
- **Note number and type of defensive (?) rings (stone walls, earthen banks, ditches).**
- **Identify the entrance.**
- **Is there a gap in the bank(s)?**
- **Is there a causeway across the ditch(es).**
- **Is there a ritual approach road?**

Some of the major centres have parallel linear earthworks leading up to the enclosure, which may have been a ritual approach road to be used at inaugurations and other ceremonial events.
- **Measure and calculate the area inside the enclosure.**
- **Look for structures and monuments inside the enclosure –**
 - **Standing stones**
 - **Grave mounds (tumuli, cairns)**

- **Building foundations (house platforms)**
- **Beehive Huts**
- **Souterrains**
- **Chambers in (stone) ramparts**
- **etc.**
- **Look for other sites of archaeological interest in the vicinity.**
- **Apply procedures outlined for the study of a *ringfort* and a *stone-fort* as far as possible.**
- **Draw a sketch map.**
- **Take photographs from different angles.**

Linear earthworks

Linear earthworks are banks and ditches often running for long distances across county. Well known examples are the *Black Pig's Dyke* in south Ulster, the *Dorsey* and the *Dane's Cast* in Armagh and the *Claidhe Dubh* in east Cork. A wooden palisade along a stretch of the *Black Pig's Dyke* in Monaghan was dated to between 500 and 100 BC. Palisades in other structures have been dated to a much later time, and it is possible that some of these earthworks were constructed in historic times (fifth century or even later).

The function of these prehistoric earthworks were probably not so much a defended fortification as rather a barrier for cattle raiders (not unlike the rampart of The Pale in the fifteenth century – see under *ditches and hedgerows*).

A special category must be the ritual approach roads (*cursus monuments*) to royal ceremonial sites, to which the “Banqueting Hall” at Tara may well belong.

Points of attention:

- **Note location**
- **What is the connection between the earthwork and ancient routes, if any?**
- **What is the link between the earthwork and the frontiers of ancient kingdoms, if any?**
- **Are the earthworks continuous?**
They are often interrupted where natural obstacles (bog, water) made a manmade structure superfluous.
- **Where there is no obviously impassable area in the gaps, is it likely that there would have been, at the time of construction, a dense forest in that area?**
- **Study the construction of the earthwork: single bank-and-ditch, double bank with one/two ditches etc.?**
- **Are there any openings in the bank(s)?**
- **What might have been the reason for leaving these openings?**
- **Take measurements –**
 - **Length of the structure;**

- **Width of the structure;**
- **Height of the structure;**
- **Depth of ditches;**
- **Etc.**
- **Draw a plan of the monument.**
- **Make a scale drawing of a section across the earthwork, showing its profile.**
- **Take photographs from various angles**

Cursus monuments

Cursus (the singular is also *cursus*) are made up of parallel banks marking ceremonial approach roads or similar processional ways. They are also referred to as *ritual approach* roads. A well-known cursus may be at Tara, though it is traditionally and legendarily believed to have been a banqueting hall. Cursus are beginning to be discovered in larger numbers, usually in the vicinity of Stone Age or later ceremonial sites. Aerial photography has been helpful in discovering these features.

Points of attention:

- **Note location**
- **Check vicinity to other archaeological sites.**
- **Is there a ditch inside/outside the bank?**
- **Is one/are both end(s) of the cursus closed?**
- **Take measurements.**

Crannogs

Crannogs are artificial islands built in lakes and swamps, less frequently in slow-flowing rivers and the sea. A roughly circular outline was fixed by ramming wooden poles (*'piles'*) into the lake floor. Stones, branches, sods, peat and other available materials were placed inside to raise a platform above the water level. A woven fence of wattles kept out animal (and human) predators, and buildings of wattle-

and-daub and thatch housed the family, servants and stores. Many seem to be constructed of stones alone.

There was a major phase of crannog building during the sixth and seventh centuries, producing rather regular and elaborate structures, some of which were inhabited or used as places of refuge until the late Middle Ages. Some crannog-like lakeside dwellings date back to the Bronze Age, their shape, form and mode of construction is less uniform than that of the early Medieval ones.

Crannogs are particularly interesting sites for the archaeologist because, like the bog but unlike dry-land sites, the waterlogged conditions preserve objects of wood, leather, fabric and other organic materials which would have decomposed long ago under dryland conditions.

The drainage of lakes and bogs or the lowering of water levels has resulted in rapid shrinkage and decomposition of the organic structural components of the crannogs, as well as of organic artefacts present.

Points of attention:

- **Note location.**
- **Determine access.**
Crannogs were accessed by a causeway, stepping stones or by boat/raft.
- **Is there a boat-slip?**
- **Measure distance from the lake shore (may be obscured).**
The lake may have long since disappeared. It may have turned into a bog or become completely drained. (See procedures under *dry lakes*).
- **Measure diameter.**
Crannogs were usually smaller in diameter than ringforts.
- **Draw a sketch map, showing the position of the crannog in relation to the shoreline and other features.**
- **When investigating a crannog in a present-day lake, it is worth taking a trip around the island in a rowing boat and looking down the water.**
Some very interesting objects have been found this way at the bottom of the lake, such as sunken dugout canoes!

Souterrains

Souterrains are underground passages and may be described as artificial caves. (Indeed they are often referred to as caves in the early literature). They belong to the Iron Age and the Early Christian period (500 - 1,000 AD) and are closely associated with the ringfort tradition.

Individual souterrains vary widely in construction and complexity, and that may reflect different functions. They may have served as temporary places of refuge for women and children during an enemy attack. In ecclesiastical settlements, they may have been hiding places for valuables (like the Round Towers). Simple passages could have been no more than storage places for perishable foodstuffs.

The vast majority of Irish souterrains are found inside forts; fewer are associated with ecclesiastical sites. It is believed that they were always associated with a house or shelter above it, though there is rarely any evidence of this.

Most souterrains have been discovered accidentally, through natural subsidence or human activity (ploughing, digging etc). since more are discovered every year, it must be suspected that many are still awaiting detection.

On older Ordnance Survey maps, souterrains are frequently marked as 'caves', while the new OS *DISCOVERY* series marks them as souterrains.

Points of attention:

- **Note location and orientation of the souterrain.**
- **How is it constructed? –**
 - **Dug into heavy clay without the use of stone for further support?**
 - **Cut into rock without further support?**
 - **Dug into subsoil and lined with stone-built walls, then covered with stone slabs?**
 - **Any evidence of timber uprights or timber roof planks used in the construction?**
 - **Any combination of the above?**
 - **Any chimneys/ventilation shafts and / or hearth sites? (Look for remnants of charcoal on the floor).**

- **Are there any defensive features? –**
 - **Does the souterrain run at different floor/roof levels, making it difficult for an intruder to get the upper hand over the resident?**
 - **Any obstructions within: heaps of stone/earth?**
 - **Any constrictions of the passage?**
 - **Any blind passages to mislead the enemy?**
It has been suggested that some of the above features are not defensive in character at all but are instead methods of heat conservation.
- **Any side channels or chambers off the main passage?**
- **Examine roof-slabs for engravings.**
Many of the known Ogham stones were discovered incorporated into the roofs of souterrains.
- **To discover a souterrain –**
 - **Examine the surface in an area where a souterrain is suspected for signs of subsidence, exposed stone slabs and openings.**
 - **If no surface indication is given, you might pound the ground with a heavy wooden mallet and listen to the sound it makes.**
Where the ground underneath is hollow, the difference should be audible.

Graveyards: early monastic sites?

There is a considerable number of old graveyards in the Irish countryside, either within towns/villages or way out and away from any human habitation. Many show the ruins of a medieval church, but the site may in fact go back to early medieval times and mark the location of a Celtic monastery. There may have been more than 2,000 Early Christian monasteries in Ireland at one time.

Points of attention:

- **A graveyard: are we looking at an ancient monastic site?**
- **Note location: is it in a prominent position?**
They often are, but there is another point to be considered. When the Early Church required land for the building of churches, monasteries or graveyards, land may not have been readily available due to the strict Celtic laws of land ownership and inheritance within the kin group. In that case –
- **Did the land have to be reclaimed from woodland or wasteland?**
- **Is the site attractive and inviting?**
- **Is the site remote and forbidding?**
There seems to be a contradiction in the fact that some of the early monastic sites are found in the most idyllic places, while others were on storm-swept rock islands off the Atlantic coast.
- **Is there an association with a local/national saint or saints?**
Some of these monastic sites are undocumented but may have a traditional name or dedication.
- **Are there several monastic sites in the wider area, linked with the name of the same saint?**
- **Was there an *ancient road* connecting those sites?**

Site Layout:

- **Is there an enclosing bank around the graveyard?**
Early monasteries were often laid out following the model of a larger Celtic ringfort, indeed they were sometimes built within an existing fort or ceremonial site.
 - **Is it oval or circular in plan?**
 - **Has the bank been fortified by a retaining wall?**

We may see only the wall from the outside, so we need to look inside it for the old earthwork.

- **Is there a wet/dry fosse outside the bank?**
- **Is the ground level higher than the surrounding countryside?**

Farmers often wanted to be buried under their own sod, so turf from the farm was brought into the graveyard to cover the grave. In some cases, this has led to a rise in the ground level.
- **Any traces of a double enclosure?**

Larger sites often had a double enclosure. The inner enclosure would contain the church and the cemetery, the outer area would house craft shops and facilities for domestic activities. If the area is developed, parts of a former outer enclosure can sometimes be recognised in the street pattern. In the countryside aerial photography has recently revealed traces of an outer enclosure, e.g. in Monasterboice, County Louth.

Features:

- **Are there any medieval church ruins?**

The church may have belonged to the old monastery but more likely it would have been built in late medieval times. Early monasteries had wooden churches, and stone churches were quite rare before the twelfth century.
- **What is the location of the church within the enclosure?**
- **What is the location of the church relative to the cemetery?**
- **Are there any cross-slabs/cross-pillars in the graveyard?**

Cross-slabs and cross-pillars are the oldest artefacts (manmade objects) of the Celtic church; they are the forerunners of the Celtic High Cross. A cross-pillar can be an old pre-Christian standing stone that has been 'converted'. In the beginning, no attempt was made to shape the stones.
- **Note material of cross slab: local stone?**
- **Measure dimensions.**
- **Is there a ring around the cross on the cross-slab/pillar? See *High Crosses*.**
- **Any other decorations?**

Pillars may show spiral patterns reminiscent of Celtic *La Tène* art.
- **Is there a tradition that the cross slab indicates the site of the tomb of the founder saint?**
- **Make a drawing of the slab/pillar. Take photographs**
- **Is there a bullaun?**

Bullauns are hollow stones which may have been used in a monastery as a mortar for grinding medicinal herbs and seeds, or just for grinding corn.

- **Is it made of local stone?**
- **Is the rainwater collecting in it said to be effective against warts or other ailments?**
- **Is there a sundial stone?**
 - **Observe the movement of the shadow across the dial and note the times at which the shadow coincides with one of the markings on the stone. Make allowance for Summer Time and convert GMT into local time.**

To find the exact *local* time for a location, read the longitude from a Discovery map, GPS appliance [sat-nav] or the Web (Google Earth and similar sites), and for every degree of western longitude subtract four minutes from GMT. E.g. Tullamore (or Kilbeggan) have 7° 30' (7½ degrees) western longitude. When your watch shows 12 Noon, local time in Tullamore is 11.30 (or 10.30 during summer time).
- **Is there a souterrain?**
- **Is there a local tradition of an alleged underground passage between this site and another nearby historic site?**
- **Is there an Ogham stone?**
- **Are there any boundary stones?**

Land originally belonging to an early Irish monastery would have found its way into the ownership of the Protestant Church. Fields near the town/village would have been let as economy lands; they were sometimes divided into very narrow strips and separated by boundary stones. These boundary stones were some 80–90 cm high, 20–25 cm square and pointed at the top. They are sometimes found in or near old monastic sites or graveyards.
- **Is there a well associated with the site or with the name of the local saint?**

Not all of them were water supplies, some ‘wells’ in graveyards were dug for the purpose of site drainage.

 - **Is it reputed to be a holy well?**
 - **Is the well enclosed or built-over?**
 - **Is it reputed to cure illness?**
 - **Is there a tradition that offerings of food or clothing were made at the well?**
 - **Has this tradition been revived in recent years?**
 - **Is a *pattern* or patron’s day celebrated in conjunction with the well?**
- **What is the distance of the well from the monastic site?**
- **Is there a High Cross?**

- **Is there a stump or base of a cross on the site?**
 - **Is that base of a cross referred to as a wart stone?**
The rainwater collecting in the cavity of a cross base is often said to contain a cure for warts and other ailments (see also under *bullaun*.)
- **Are there any beehive huts?**
- **Is there a *Round Tower*?**

High Crosses

The prototypes for stone-carved High Crosses were most likely early wooden crosses. These were constructed of a shaft with arms and an upright top extension. To keep the various parts in place, struts were needed, and these were rounded for aesthetic reasons to form a ring shape. The visible ends of the dowels that fixed the different parts together were covered by a wooden boss to disguise them. The top of the cross was capped to throw off the rain.

There are three classes of High Crosses:

1. Those covered with abstract ornament. Earlier examples have only abstract decorations (interlace patterns, scroll work). Crucifixion is absent. There may be figurative art at the bases. Later examples have abstract decoration with minimal figurative art. Crucifixion panel is at eye level on the shaft. (Eighth century.)
2. Those covered mainly with panels of scriptural scenes, including one of the crucifixion, with less abstract decoration. Crucifixion is at the centre of the cross-head. This class includes the famous Scripture Crosses of Clonmacnoise, Monasterboice etc. (Tenth century.)
3. Those that are true crucifixions, with large, high relief figures of Christ on the cross. There may be a figure of a bishop below the crucifixion scene or at the reverse side of the cross. (Twelfth century.)

Points of attention:

- **Note location:**
- **Is the cross anywhere near the entrance to the monastery?**
- **If there is more than one cross on the site: is there a spatial relationship between the several crosses?**
- **Is the cross hewn from one stone or composed of two/three sections?**
- **Measure the dimensions of the cross.**

- **Note type and origin of stone.**
- **Does the cross have a ring?**
- **Are there bosses at the centre and at the junctions of the shaft and arms with the ring?**
- **How many decorated panels are there on the cross?**
 - **On the base (east, west, north, south)?**
 - **On the shaft (east, west, north, south)?**
 - **On the arms (east, west, underside, end)?**
- **What are the main themes illustrated on the cross:**
 - **'Celtic' interlace patterns? Note details.**
 - **Scroll work?**
 - **The crucifixion:**
 - **Is the crucifixion on the shaft?**
 - **Is it at the centre of the head?**
 - **Does it take up most of the 'front' of the cross?**
 - **Is it absent?**
 - **Is there a scene of Christ sitting in Judgement?**
 - **Is there a representation of a bishop as Christ's representative on earth?**
 - **If so, where is it relative to the figure of Christ?**
 - **Biblical scenes?**
 - **From the Old Testament?**
 - **From the New Testament?**
 - **Historical figures/scenes?**
 - **Abbots?**
 - **Bishops?**
 - **Kings?**
 - **Humorous scenes?**
 - **Animal scenes?**
- **Is there an inscription on the cross? Is it still legible?**
- **How is the cross finished at the top? Does the top resemble a little church? Note details.**



Illustration 1:

Shell midden near Clarinbridge, County Galway. This midden has been levelled by repeated tidal action. Others may still be two metres high or more.

Illustration 2:

Shell midden detail.



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Illustration 3: Court Tomb at Creevikeel, County Sligo, view of entrance to burial chamber from the forecourt (top).

Illustration 4: The feature shown is an Iron Age smelter, unrelated to the tomb (above left).

Illustration 5: Creevikeel, aerial view (above).

Illustration 6: Court Tomb at Deerpark, County Sligo (left).



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Illustration 7: The world-famous passage tomb of Newgrange, County Meath, should always be seen within the greater context of the Bru na Boinne complex. Note the kerb stones. The standing stones are remnants of a Bronze Age Stone Circle.



Illustration 8: Entrance to the passage tomb of Newgrange with decorated sill stone. Note the light box above the door lintel which admits the early rays of the sun on the mornings around the winter solstice. The limestone wall is not part of the original structure, and using a different type of stone highlights this fact.



Illustration 9: Detail of the large Passage Tomb of Knowth, County Meath, showing decorated kerbstones (above).



Illustration 10: Two of the nearby satellite tombs. Knowth, County Meath.



Illustration 11: This passage tomb is one of a group of prehistoric monuments at Carrowmore, County Sligo. It is quite different from those in the east of the country inasmuch as it does not actually have a passage. However, it falls into the same Neolithic tradition and is therefore classified as a passage tomb. – Note Ben Bulbin in the back-ground on left.



Illustration 12: A possible henge monument at Boherhole near Clane, County Kildare. It is a fosse with a low outer bank and a diameter in excess of 200 metres. Some levelling has taken place since this photo was taken but the feature is still recognisable in the landscape.



Illustration 13: Brownshill Dolmen, County Carlow, is the mightiest Portal Tomb in Ireland and possibly in Europe. The cover stone has been estimated to weigh 150 tonnes.



Illustration 14: Poul nabrone portal tomb, The Burren, County Clare. It is easily accessible and one of the most aesthetically pleasing portal tombs on this island – and very much on the tourist trail.



Illustration 15: This Portal Tomb at Ballina, County Mayo, atypically has a capstone sloping forward. It also has an outlier.



Illustration 16: Portal Tomb with two capstones. County Cork



Illustration 17/18: Drombeg stone circle, County Cork. Note the entrance between the two tallest stones and the recumbent or axial stone opposite the entrance.



Illustration 19: Two pairs of standing stones at Barrystown near Timoleague, County Cork. Or can it be seen as a stone alignment?



Illustration 20: Cross-inscribed standing stone, Killadoon near Louisburgh, County Mayo. Many Bronze Age standing stones were inscribed with Christian symbols in Early Medieval times.

Illustration 21: Detail of cross (above).



Illustration 22: The Punchestown Longstone is, at six metres, the tallest of its kind in the country (above).



Illustration 23: Standing stone with two holes on opposite sides. They do not meet in the centre. Great Connell, near Newbridge, County Kildare.



Illustration 24: A stone fort and a large ringfort close together at Caherdaniel, County Kerry. What is the connection?



Illustration 25/26: Separate views of the two forts at Caherdaniel. Is it possible that the fort in Illustration 26 (above) also was a stone fort from which the stones have been cannibalised?



Illustration 27: Promontory Fort, Howth, County Dublin.



Illustration 28: Silhouette of an inland promontory fort, Caherconree, County Kerry.



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Illustration 29: Grianan of Aileach, County Donegal. The medieval stone cashel is well known, but it is located within an ancient trivallate hill-fort.



Illustration 30: Entrance to a souterrain, The Doon, County Offaly



Illustration 31: Bullaun at Clane, County Kildare (above left).



Illustration 32: Bullaun at Clonmacnoise, County Offaly (above right). The water collecting in the cavity of the stone is said to cure many ills. – Is it possible that this stone dates back to a time before the foundation of St Kieran's monastery in 549 CE?



Illustration 33: The bullaun at the Visitors' Centre, Glendalough, County Wicklow has a stone in it. There are several interpretations regarding the function of a bullaun. Is the stone in the cavity the original stone that served as a pestle in a mortar?



Illustration 34: Fulacht Fia, located next to Drombeg stone circle, County Cork. The picture shows the water-filled cooking pit and behind it a well. The large stones forming an open ring around it are not typical. Normally one would find smaller fragments of stones, blackened from having been heated in an open fire. As a rule stones are overgrown with vegetation and only a crescent-shaped elevation is seen in the landscape.



Illustration 35: The Turoe Stone, a unique example of La Tène stone art. Bullaun, near Loughrea, County Galway.



Illustration 36/37: Ogham Stones. The one above right stands at Kilmalkeadar, County Kerry. To have a hole drilled through it is rare.



Illustration 38:
Standing Stone
engraved with Celtic
faces but also a
Christian bishop
carrying a crozier.



Illustration 39:
A cross-inscribed
stone at Gallarus,
County Kerry (right).

Courtesy Etienne Rynne



Courtesy Etienne Rynne



Courtesy Etienne Rynne



Illustration 40/41: A pre-Christian phallic stone (above left) in a Christian graveyard (top), with three high crosses and a holy well in close vicinity. Here as elsewhere a pre-Christian holy site was chosen for an early Christian site. Kilkeeran, County Kilkenny.

Illustration 42: Celtic Idol, with faces front and back, in a Christian graveyard, Boa Island, County Fermanagh (above right).



Illustration 43: Beehive hut, Fahan, Dingle Peninsula, County Kerry. The building of the hut made use of the corbelling principle. Flat stones were placed on top of each other, and from a certain height the growing wall was pulled inward until only a small hole remained at the top. This was covered with a single large, flat stone. The round shape of the hut afforded stability to the structure. Later attempts to apply the principle to rectangular buildings proved less successful.

Illustration 44: Sundial at Kilmalkedar, County Kerry. A stick in the hole would throw a shadow on the dial. The markings indicate prayer times for the monks of the Early Christian monastery.



Illustration 45: Old customs revived: For the celebration of Patron's Day or 'Pattern' the faithful parade from their local church to the saint's holy well. Durrow, County Offaly.

Illustration 46: The custom of leaving colourful objects on a tree near a holy well is also practised again in some places. Leamanaghan, County Offaly.





Illustration 47: The wall around this cemetery at Carrick, near Edenderry, County Offaly, retains the curvature of an Early Christian monastery.

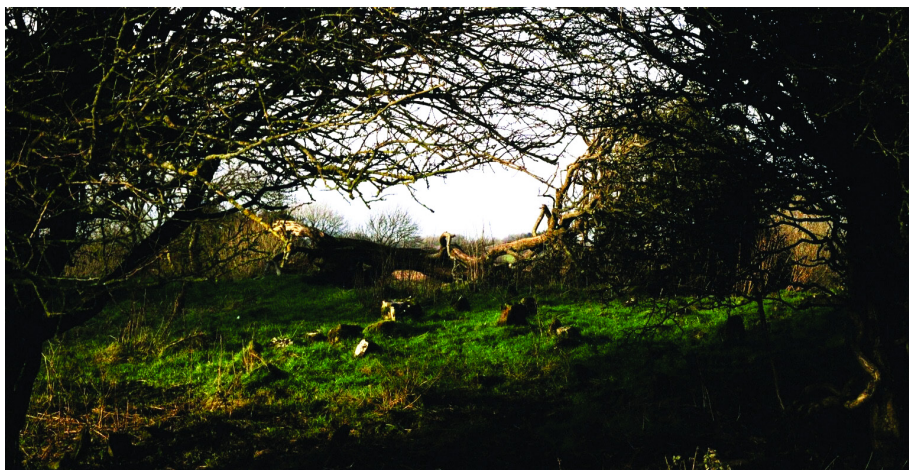


Illustration 48: A children's burial ground (cillín) within a ringfort. Rough stones mark the burial sites. Raford, County Galway.



Illustration 49: Seventh century St Patrick's Cross, Carndonagh, County Donegal, is one of the oldest carved stone crosses in Ireland. (Above left)



Illustration 50: Eighth century High Cross, Ahenny, County Tipperary. The round knobs are known as *bosses*. (Above right)



Illustration 51: Detail of tenth century Muiredach's Cross at Monasterboice, County Louth, one of the best preserved high crosses in the country. The panel shows Eve handing the apple to Adam and Cain slaying his brother Abel.



Illustration 52: Cross of the Scriptures, Clonmacnoise, County Offaly (tenth century). Like Muredach's Cross at Monasterboice this cross shows Biblical as well as secular scenes on its panels. These two crosses are considered the finest and best preserved crosses of their type.



Illustration 53: Some Round Towers, like this one on Devenish Island, County Fermanagh, have a large, pointed window above the doorway.



Illustration 54: Round Tower at Glendalough, County Wicklow.

Illustration 55: Doorway of the Round Tower at Old Kilcullen, County Kildare, with a simple arch.





Illustration 56/57: The Round Tower at Graigue Feartach, County Laois, is eight stories high. Its present doorway is obviously not original.



Illustration 58/59: Round Tower at Ardmore, County Waterford. This tower has windows only in the top storey. It is also unique in having stone rings around the outer wall and a cross at the top. The detail (below) shows the cross at the top.





Illustration 60: The Round Tower on the Rock of Cashel (above left) shows courses of limestone, while most of its height is built in sandstone.



Illustration 61: O'Rourke's Tower at Clonmacnoise has fewer than the usual six stories and has eight windows in the top storey. It is possible that this tower was never finished.



Illustration 62: Inside the Round Tower on Devenish Island, County Fermanagh.



Illustration 63: Gallarus Oratory, County Kerry, is the most famous and best preserved of its kind. It is claimed that the oratory is built entirely in the drystone method, employing the corbelling principle, but this is doubted by some experts.



Illustration 64: St Declan's Oratory, Ardmore, County Waterford. The stone-work shows that there has been reconstruction in the upper reaches of the wall as well as on the roof.



Illustration 65: St Kieran's Church, Clonmacnoise. In previous 'restoration' work the anta on the right corner has been omitted. Originally all four corners would have had these mural projections. Note also the compromise between a lintel and an arch. If the present lintel is the original one then the doorway would have previously been much narrower.



Illustration 66: St Kevin's Church, Glendalough, County Wicklow, popularly known as 'Kevin's Kitchen'. It was originally a simple stone church; the bell tower, chancel and sacristy are later additions.



Illustration 67/68: East gable of St Kevins Church. Inside is a barrel vault and above that a space with slit windows. The chancel and sacristy are later additions. A new door, really an improvised Chancel Arch, was broken into the east gable wall, at the top of which the original east window is visible though now closed up (above). A groove showing the roof line of the annex is also visible.



Illustration 69: West gable with main doorway (left).

Illustration 70: Finial cross on east gable (below).





Illustration 71; Foundation walls of the chancel. The chancel arch, now used as access to the interior, and the doorway into the sacristy are also shown (above left).

Illustration 72: Main doorway of Glendalough Cathedral. The arch provides extra support for the stone lintel (above right; see also St Kevin's Church west doorway).



Illustration 73: Glendalough gate house. The arches are built from local granite while the rubble stone outside the arches is local mica schist. Note the keystone at top centre which keeps the arch in place during construction.

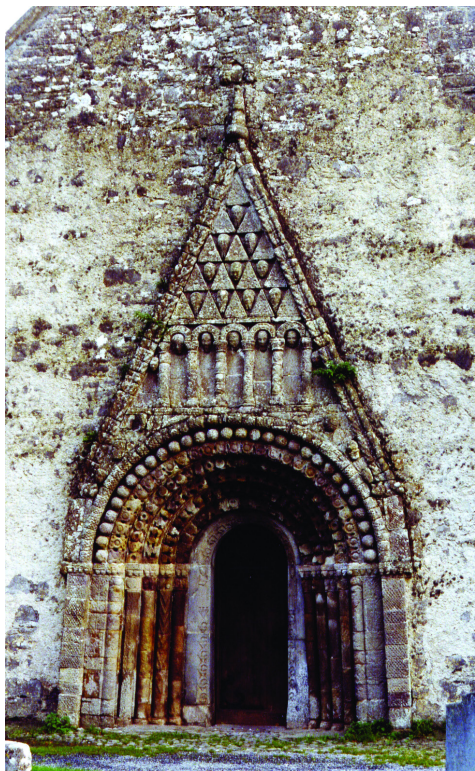


Illustration 74/75: Doorway of Clonfert Cathedral, County Galway. This is the finest doorway from the late twelfth century extant. Note that the inner part of the doorway is made from limestone while all else is made from sandstone, indicating that it is not contemporaneous with the rest. The splaying of the columns is typical.

Illustration 76: Sheela-na-gig, Bunratty Castle, County Clare.



Illustration 77: Motte at Clonard, County Meath (top left).

Illustration 78: The motte at Ardscull near Athy, County Kildare, is one of the largest in the country. Could it be that it was constructed over a prehistoric burial mound, perhaps a passage grave? (Top right)

Illustration 79: A very well preserved motte-and-bailey at Cloonburren, County Roscommon. Note the fosse around the motte. (Above)



Illustration 80: Moated site.



Illustration 81: Trim castle, County Meath.

Illustration 82/83: Trim castle, curtain wall with flanking towers and barbican. The entrance through the barbican is elevated to allow for a draw bridge to be pulled up.



Illustration 84: Curtain wall with tower and keep (donjon). Cahir, County Tipperary (left).

Illustration 85: Batter in a castle wall would reinforce the wall where it is most vulnerable. It also served as a deflector for stones dropped down from above and increased the chance of hitting an enemy (right).

Illustration 86: Clockwise-turning spiral stairways gave the advantage to the defender (below left). Cahir, County Tipperary.

Illustration 87: Musket loop (in door jamb) and arrow loop at the entrance to the donjon (below right). Cahir, County Tipperary.





Illustration 88: Portcullis with machicolations (left). Cahir, County Tipperary.

Illustration 89: Portcullis detail (above).

Illustration 90: Machicolation over doorway

Illustration 91: Combined arrow and pistol loop ('stirrup loop') (below).





Illustration 92: Kilkenny Castle is a keep-less castle. The round corner tower is original (c.1200 CE), but the square tower is of a later date. The large windows in the tower are later insertions as the castle underwent several transformations.

Illustration 93: A thirteenth century Anglo-Norman castle inside a ringwork. The castle was built to guard a Shannon crossing and was destroyed by Cromwellian troops in the mid-seventeenth century. Clonmacnoise, County Offaly.





Illustration 94: Ross Castle, Killarney, County Kerry. Several modifications have been carried out on this thirteenth century castle, including the insertion of large windows.



Illustration 95: Bunratty Castle, County Clare, the mightiest Tower-house in the country (fifteenth century). Located in its grounds is Bunratty Folk Park.



Illustration 97: Corbel stone supporting a wooden floor. Cahir Castle, County Tipperary.

Illustration 96: Knappogue Castle, County Clare, a fifteenth century Gaelic-Irish tower-house. The castle has been restored and, like Bunratty Castle, hosts medieval banquets for mostly American tourists.



Illustration 98: Dunguaire Castle, near Kinvarra, County Galway, is a restored tower-house with its bawn intact (above left).

Illustration 99: Craggauowen Castle, County Clare, has a hall attached to the tower (above right).



Illustration 100:
St Lawrence's Gate,
Drogheda, County Louth.
This was in fact a
barbican, a fortification
outside the actual gate.



Illustration 101: Lynch's Castle in Galway City was an urban tower-house. Note the relief decorations on the external walls.



Illustration 102: Carbury Castle, County Kildare, is an Elizabethan fortified house. The site harbours many archaeological remains from previous eras.



Illustration 103: The picture shows Lemanah Castle, County Clare, where a fifteenth century tower and a seventeenth century fortified house are joined together. The house features machicolations, and both house and tower have battered walls. The joint between the two buildings is clearly visible.



Illustration 104: The Rock of Cashel, County Tipperary.



Illustration 105: Kilconnell Franciscan Friary, County Galway.



Illustration 106: The cloisters of the Dominican Friary, Portumna, County Galway.

Illustration 107: The cloister pillars of Jerpoint Abbey, County Kilkenny, are uniquely decorated with human and animal figures.



Illustration 108: Detail of a Romanesque arch, The Nun's Church, Clonmacnoise, County Offaly. When elements of a stone structure are restored or replaced, as illustrated by the insertion of stones at the top of the arch, it is customary to use plain, undecorated stones, often of a different type. This is done to clearly show to the expert and the lay person alike that these parts are not original.



Illustration 109/110: Transitional forms between the Romanesque round arch and the Gothic pointed arch can be seen in the Dominican Friary, Portumna, County Galway.



Illustration 111:
Ogee arch.



Illustration 112:
Mullioned ogee window.



Illustration 113: Rib vault, Jerpoint Abbey, County Kilkenny.

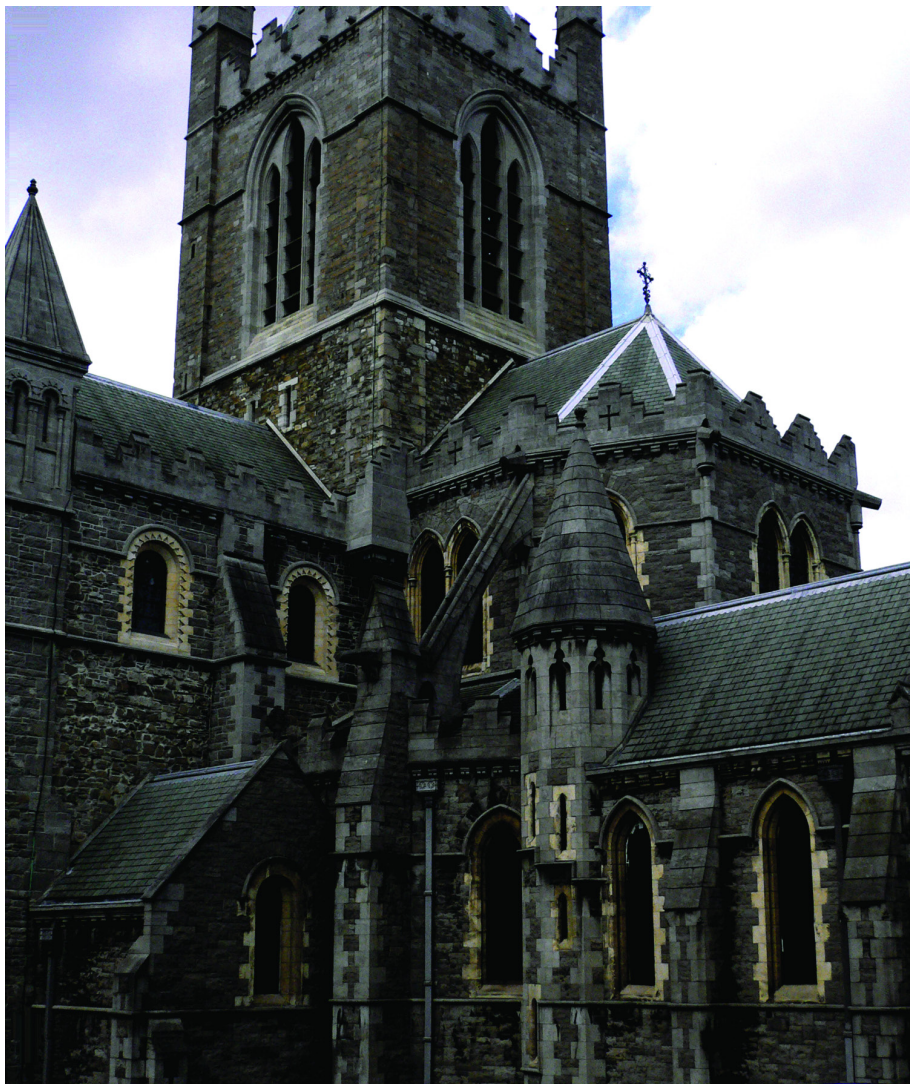


Illustration 114: The different window arches of Christ Church, Dublin, bear witness to the fact that the cathedral as it stands was not all built at the same time.



Illustration 115: Closed-up arches can be found in many church and castle walls. Where did they originally lead to? Timoleague, County Cork.



Illustration 116: This stone marks a holy well from which St Patrick allegedly took the water to baptise his converts, and where he is said to have built a wooden church. Indirectly, then, the well could be the reason why St Patrick's Cathedral, Dublin, stands where it does today.



Illustration 117: The relief sculpture of a mysterious mermaid, found on an internal wall of Clonfert Cathedral, County Galway.



Illustration 118: Mudwall house, Timahoe, County Kildare.



Illustration 119: Ice house, Donadea Demesne, County Kildare.



Illustration 120-123: The type of locally available stone determines the shape of drystone walls and their method of construction. Top left: granite (Casla, County Galway); top right: shale (Moher, County Clare); above left: limestone (The Burren, County Clare); above right: limestone (Oranmore, County Galway)



Illustration 124: Mass Rock, County Galway.



Illustration 125: Famine ridges or lazybeds from County Mayo (Killadoon near Louisburgh). Potatoes were grown on the ridges between the drainage channels, typically 1.2m (4') apart. When blight struck in the 1840s and potatoes rotted in the ground, many fields were abandoned and the spoiled crop was left behind.



Illustration 126: Historical sources going back as far as the twelfth century (Giraldus Cambrensis) say that The Curragh, County Kildare, was never ploughed or cultivated. These cultivation ridges clearly show that crops were grown in at least parts of the area, but obviously not in recent centuries. Cultivation ridges for growing cereals were much wider than potato ridges.



Illustration 127/128: House platforms may occur as ridges and bulges in permanent grassland (top left and top right). The outlines of collapsed walls and the location of collapsed chimneys can often be recognised. Lush grass obscures the contours (top right), so the best time to look for house platforms in grassland is when the grass is short (February/March).

Illustration 129/130: There may also be remnants of walls. The foundation wall (above left) is an obvious give-away, but a short length of good masonry in a field fence can also indicate the site of a former building (above right).



Illustration 131: The best known double ditch is the Pale Ditch, partially extant in north Kildare. Double ditches were often constructed to mark important boundaries.



Illustration 132: An imperfectly levelled double ditch in a field.



Illustration 133/134: Disused roadways can show up as elevated features (above left) or as sunken features (above right and below).



Illustration 135: Sunken roadways occur in deserted settlements where traffic would have churned up the unmetalled street, which was then repeatedly scooped out to provide a firm surface. In the photograph of the deserted village of Old Croghan, County Offaly, the roadway has been highlighted.



Illustration 136: Outline of a small square field: a tillage plot in close proximity of a deserted settlement

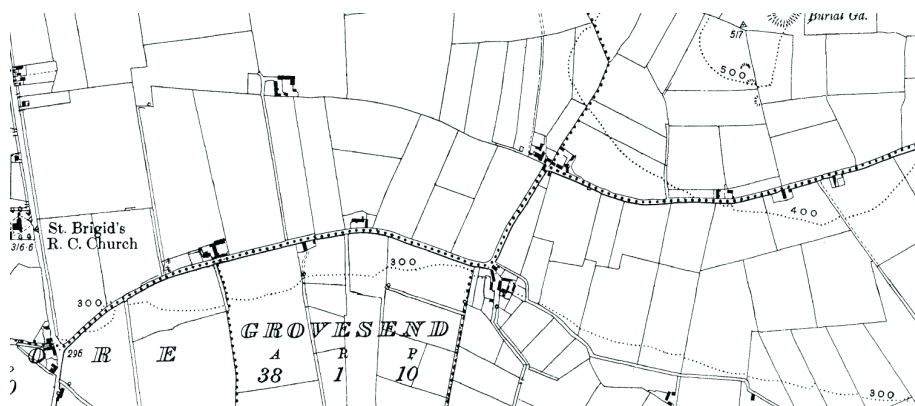


Illustration 137: Using six-inch OS maps in road research: The road entering the picture from the right today takes a sharp left turn. The original course of the road survives in the landscape as a field boundary. Near Croghan, County Offaly.



Illustration 138: Eskers are ridges composed of sand and gravel. They are well drained and have provided ready-made roadways across wet and boggy terrain from prehistoric times. Frevanagh, Co. Offaly.



Illustration 139: The esker profile (above left) consists of sand, gravel, cobbles and rounded stones and. Fine particles of soil (silt, clay) that would impede drainage are absent.

Illustration 140: A typical drumlin profile shows jagged stones in a matrix of heavy clay with very poor drainage (above right). Rushes growing in a field are also indicators of water-logging.



Illustration 141: Connell Ford, Great Connell near Newbridge, County Kildare. Many fords were improved by dumping gravel or rubble into the riverbed, thus creating a firm surface to drive on. The water here is held back by a rubble dam and flows rapidly down-river from it.



Illustration 142: King John's Bridge, Esker, Lucan, County Dublin, was built pre-1216 CE. It is one of the oldest stone bridges in the country.



Illustration 143: An ancient bog road, overgrown with a layer of peat, exposed in a drainage ditch near Timahoe, County Kildare. It is likely to have been a section of the Slí Mhór between Timahoe and Carbury.



Illustration 144: A togher or wooden trackway, exposed during turf-cutting operations in the bog near Timahoe, County Kildare. One track in this area has been dated to be more than four thousand years old. Peat grows at a rate of 1mm per year, so 1m of peat cover corresponds to one thousand years.



Illustration 145: When Clonmacnoise was founded in the sixth century CE, the site was probably chosen for its location at the crossing of two important routeways: the ancient roadway of the Slí Mhór, running east-west, and the Shannon waterway, carrying traffic north-south. Today only pleasure craft cruise on the Shannon.

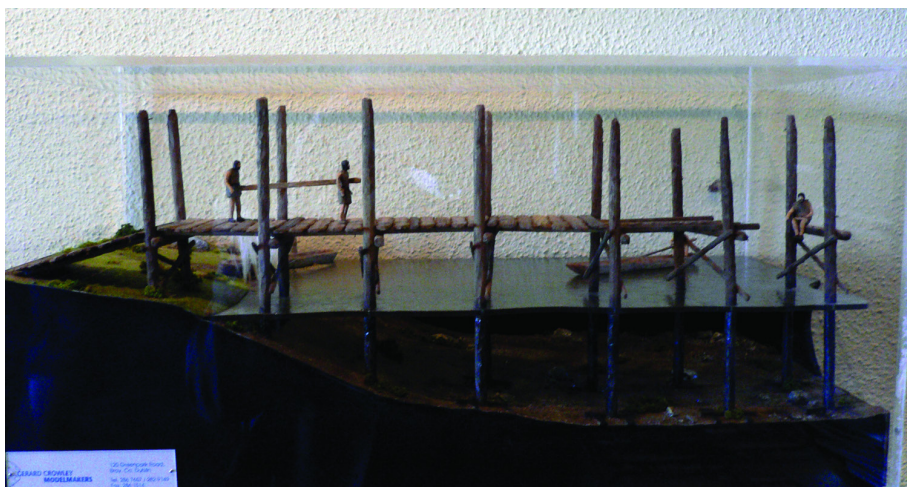


Illustration 146: In the ninth century CE a wooden bridge similar to this model spanned the River Shannon at Clonmacnoise.



Illustration 147: An S-bend in a road can be a good indicator that a stretch of old road has been incorporated into a modern road system. Staplestown, County Kildare.



Illustration 148:

Commonsense would have us believe that older roads are always full of turns and bends and more recent roads are straight. This is only partly true. The old road between Killarney and Tralee, County Kerry shown here on the left, goes dead straight for almost 30 kilometres. However, it has very steep inclines, very dangerous for stage coach travel, and was replaced in the early nineteenth century by a winding road with specified maximum gradients.



Illustration 149: Martello Tower at Banagher, County Offaly. A large number of Martello Towers were constructed at the beginning of the nineteenth century around the Irish coastline to warn of a feared French invasion. A small number were built along the River Shannon, which was chosen as a defence line if an invasion was to take place from the west coast.



Illustration 150: The powder magazine at Banagher was a part of the Shannon fortification.

Round Towers

Points of attention:

➤ **Note the tower's location relative to the church.**

The round tower was usually located west of the church/main church.

➤ **Measure height of doorway from the ground.**

Most Round Towers have doorways raised away from the ground with access by ladder only. In the case of an attack, the monks could bring relics and other valuables inside and pull up the ladder. This was not as effective as it may appear because several towers are known to have been burnt out.

While the raised doorway is the primary evidence for the refuge theory, some experts believe there is another reason for it. There had to be a fixed number of stories in the tower, and anyone wanting to build a higher tower than a neighbouring monastery had to start at a higher ground floor level, which also involved raising the doorway.

Another theory says that the abbot used the elevated doorway as a podium to address the congregation at special occasions.

➤ **Is the present ground level the original ground level?**

The ground could have been raised around the tower as a result of successive burials.

➤ **Measure the dimensions of the doorway.**

➤ **Note orientation of the doorway.**

The doorway often faced the church/main church

➤ **Is the doorway arched or lintelled (= *trabeate*)?**

Structures with lintelled doorways tend to be older than those with arched doorways.

➤ **Is the doorway decorated?**

The later towers often had doorways decorated in Romanesque fashion.

➤ **Are the door-jambs parallel or splayed?**

➤ **Measure the thickness of the wall.**

➤ **Note the number of storeys (if the tower is still its original height).**

There were usually five. If there are fewer, this could mean that the tower was partially destroyed or that it was never finished.

➤ **How many windows are there at each level?**

The rule was one each in the first four stories and four in the fifth (top) storey, though the main tower at Clonmacnoise has eight at the top.

➤ **What is the orientation of the windows?**

➤ **Are they ascending in a spiral manner? Clockwise? Anti-clockwise?**

➤ **Note the quality of the masonry.**

In the twelfth / thirteenth century the quality of the masonry improved greatly. Sandstone was the preferred medium. It was easier to work than limestone and more suited for intricate decorative sculpture.

- **Note if masonry changes at different heights.**

Beehive huts

Beehive huts are also known by their Irish name, *clochán*, plural *clocháin*. In their most typical form, they are round stone huts, built from flat stones without mortar, applying the *corbelling* method. They are usually believed to have been the cells of monks where they are found in or near early monastic sites in West Cork and West Kerry. However, they may have been the standard dwelling house from early prehistoric times in areas where suitable flat stones were plentiful but wood and clay were rare. Some were later used for other purposes such as outbuildings on farms, and some are believed to have been built, for this primary purpose, as late as the late Middle Ages.

- **Study the corbelling principle.**

The corbelling method had already been applied in the Neolithic passage grave of Newgrange, and was later employed to create the so-called beehive huts. Enduring buildings could be constructed without the use of mortar.

Successive layers of flat stones were placed in a circular pattern. From a certain height each successive layer was pulled slightly inward. No mortar was used. The final opening left at the top was covered by one large, flat stone slab. The resulting shape of the building is reminiscent of an old-fashioned beehive made of straw, hence the name. (Bees were not kept in it!)

Corbelling is limited in its application. Generally, the greater the diameter of the building, the greater the height needed to make the sides meet at the top; and the greater the height, the thicker the walls need to be. While the principle works very well with small, round buildings, it has been proven rather less successful when applied to rectangular projects.

A combination of the corbelling method with the use of mortar has been employed in the building of *Round Towers* and stone-roofed *medieval churches*.

Points of attention:

- **Note location.**
- **Is the hut part of an Ecclesiastic settlement?**
- **Enter the precise location on an Ordnance Survey map or record its co-ordinates using GPS.**

It is just possible that the hut (or group of huts) you are looking at is not yet on official record.

- **Are there any multiple (conjoined) huts in the vicinity?**
- **Measure the dimensions of the hut.**
- **Is the interior round or rectangular?**
- **To what extent is the hut water/rain/windproof?**
- **Is there any evidence that the hut might at one time have been weatherproofed with sods or similar material?**

If it once was, there may be nothing left of it and the question becomes a matter of pure speculation. There are, however, some cases where a concentric outer ring of stones, set upright in the ground, has been found that may have served to secure the sods used for weatherproofing the sides and roof. So –

- **Look for a circle of upright stones surrounding the hut.**
- **Draw a view of the hut. Take photographs.**
- **Draw a section through the hut.**
- **Where there are only low walls left: Was this once a complete beehive hut or are you looking at walls which were formerly topped by a wooden roof structure?**

It may be impossible to tell, but excavation has occasionally revealed post-holes, from posts that would have supported a roof.
- **Or is there a local abundance of surface stones inside or just outside the hut that may represent the collapsed roof?**

Other graveyards

Not all graveyards mark former monastic sites. Some were moved away from the original monastery when a stone church was built in medieval times and a burial ground established around it. More burial sites were needed in times of disasters like the fourteenth century Black Death and during the great famines of the fourteenth, eighteenth and nineteenth centuries. Famine graveyards were sometimes seen as an embarrassment to the survivors (some did feel *guilty* about surviving!), so the site fell into disuse and reverted to farmland.

Points of attention:

- **Check maps and local tradition for old field names (e.g. Cillín, Reiligín [= little graveyard]) and other indications of a possible burial site.**
- **Check reports of human bones, teeth, old grave-stones etc. found during building excavation and earth moving (road works, golf courses etc).**

Cillíns

A cillín is often a circular enclosure, also referred to and marked on maps as Ceallúrach, Calthagh, Children's Burial Ground, Disused Burial Ground, Lisheen etc.

Like the *kil** (*kill*) element in many Irish placenames, the word, *cillín*, (and its variants) is derived from the Latin word, *cella*, which originally referred to a monk's cell in a monastery but later came to denote a hermitage, a church or, as in the diminutive *cillín*, a burial ground.

These *cillín* sites are still used in some parts for the burial of unbaptised children.

Points of attention:

- **Investigate the site as under ringforts and as under graveyards**
- **Are there any traces of a building?**
 - **If so, could it have been a church?**
- **Are there still (exceptional) burials performed at the site?**

This might include suicides, drowned people or strangers.
- **Are there any marker stones (simple uncut upright stones) to mark the locations of the various burials?**
- **Is the cillín in an old ringfort?**

Sometimes unbaptised children were buried in places that were of obvious antiquity and therefore were hoped to afford some dignity to the deceased child who was denied a full Christian burial.

* At the beginning of a word kil- before a consonant is usually spelled with one L but with Ls before a vowel.

Medieval churches

Churches in Early Christian Ireland were always very small and generally of fixed proportions; the original size of a small wooden church being 6' x 9' (1.8 x 2.7m). They were big enough to accommodate the priest who went in alone to pray for the community. Reconstructions of such tiny wooden churches can be seen at Ballintober and Clonmacnoise. The first stone churches were usually twice that size in each dimension (four times in area), and though bigger churches were built in due course, they remained small up until the arrival of the Cistercians and shortly afterwards, the Anglo-Normans.

The first Irish stone churches were oratories built entirely of stone, with a heavy stone roof, a doorway in the west gable wall and a window in the east wall. The culmination of Irish church architecture came with the construction of Irish Romanesque churches, like Cormac's Chapel in Cashel, County Tipperary or Clonfert Cathedral in County Galway. Of the latter only the beautifully carved doorway remains, now part of the gable of the modern cathedral. The new arrivals of the twelfth century – Anglo-Normans and Continental orders like the Cistercians – brought with them plans for large, comparatively plain churches to replace the small, beautifully decorated churches of the Irish Romanesque style.

Points of attention:

- **Is the church very small: is it a 'Celtic' church?**
- **Could it be described as an oratory?**
- **Measure the dimensions of the church and calculate the length-to-width ratio.**
- **Do they conform to the ratio of 1.5 to 1, typical of pre-Romanesque (roughly pre-twelfth century) churches.**
- **Is it an oratory built with drystone?**
Mortar was not commonly used before the eighth century.
- **Was it built with local stone?**
- **Note size and shape of the stone used and the quality of the masonry work.**
- **Does the church have a stone roof?**
- **What is the pitch of the roof?**

The oldest stone churches had steeply pitched roofs.

- **Is there a barrel vault/pointed vault supporting the stone roof?**
- **Is there an open space between the barrel vault and the stone roof?**
 - **If so, is it accessible?**
- **Is there evidence of a former thatched/shingled roof?**
- **Are there *corbels* (= projecting stone offsets) in the walls, indicating that there was once a wooden ceiling/floor?**
- **Is the interior divided into *nave* and *chancel* by a chancel arch, or does a reduction in size indicate the transition from nave to chancel?**
 - **If so, was the chancel part of the original structure?**

A chancel was often added to older churches in the eleventh century. The masonry work should provide clues.
- **Any noteworthy decorations on the chancel arch?**
- **Any other divisions: sacristy, transepts etc?**
 - **If so, are they contemporary or added on later?**
- **Is there a crypt beneath the floor?**

Even some of the small medieval churches in derelict graveyards may have a crypt, even though some of the big cathedrals (St Patrick's, Dublin) have none.
- **Note the east-west orientation.**
- **Is the doorway in the west wall?**

The entrance was originally from the west, but there are exceptions.
- **If not, is the doorway the original entrance or was it set into an existing wall at a later date?**
- **Are there *antae* projecting from the corners of the gable wall(s)?**

Antae are projections of the lateral walls past the gables. They are a curious feature presumably taken over from wooden churches where they would have had a structural significance (think of American log cabins).

 - **Do the *antae* go all the way up the slope of the gables?**
- **Are any of the gable walls topped by *finials*?**

A finial is a cross-shaped projection at the apex of a gable wall. Like antae, finials would have made structural sense (as cross-beams) in a wooden church. Finials were often decorated.
- **Is the west gable wall topped by a bell-cote?**

A bell-cote (sometimes referred to as a bell-ope) is an upward extension of a gable wall with an opening for the church bell.

 - **If so, is it on the east or the west gable?**
- **Is there a tower?**

- **Does the tower have defensive battlements?**
Most battlements were added in medieval times.
- **Is the tower defensive or residential?**
- **Is there a steeple?**
- **Are the doorway and window(s) still intact?**
 - **Is the doorway lintelled or arched?**
 - **Is it possible to tell the style (Romanesque/Gothic) by looking at the arches?**
 - **Are the door/window arches round (Romanesque) or pointed (Gothic)?**
- **Is the church Early Christian, Irish Romanesque or Cistercian/ Anglo-Norman?**
- **Is there a tympanum over the doorway?**
- **This is a semicircular stone slab. It may be decorated. Where it is absent, there may be evidence that there was once a wooden one.**
- **Are there any 'blind' arches in the walls?**
- **Are the door jambs parallel or splayed?**
- **Splayed door jambs could indicate an older structure.**
- **Measure all doorways and variations in width of splayed doorways.**
- **Is there a series of orders in the doorway?**
- **If so, how many orders?**
- **How many arches?**
- **Are there any pediments over the doorway?**
These are triangular structures over the arches of a doorway, or over any arch.
 - **Are they decorated? How?**
- **If there are sculptures/decorations on/over the doorway or on the chancel arch: are they –**
 - **Zigzag patterns?**
 - **Lozenge shapes?**
 - **Chevrons?**
 - **Other abstract patterns?**
 - **Human faces (possibly self-portraits of artists/builders)?**
 - **Fabulous animal heads (dragons etc.)?**
- **Are there any wall or ceiling paintings?**

- **Is the west gable wall and doorway built in the same style, using the same material, as the rest of the church?**

A number of churches have been rebuilt, incorporating the west gable of an earlier Romanesque church (e.g. Clonfert, County Galway, and Freshford, County Kilkenny).

Abbeys, friaries and priories

Shortly before the Anglo-Normans arrived in Ireland, Bishop Malachy of Armagh had introduced the Cistercian Order into Ireland (1142). The loosely structured Celtic monastery was by this time in decline and performing many non-religious functions as a mixed community; some had taken on the role of a town. Malachy saw an urgent need for reform.

The rigidly organised and firmly managed European-style Cistercian abbey was reflected in its strict and austere architecture. A well preserved Cistercian abbey is Jerpoint Abbey, Count Kilkenny.

Cistercian abbeys

Points of attention:

➤ **Note location.**

The Cistercians tended to choose locations for their abbeys in valleys, preferably with running water. But, unlike the Gaelic-Irish chieftains and landowners, they had a keen eye for and a keen interest in good, fertile arable land. In contrast to the native population who measured their wealth in cattle rather than acreage, the new class of landowners (which includes the Anglo-Norman invaders that followed shortly afterwards (1169-71) were more interested in arable farming, and land quality was of paramount importance.

➤ **Check the soil map of the relevant county.**

Where a soil survey for the county in question has not been done, some useful information can be obtained from the General Soil Map of Ireland. It gives soil associations rather than the particular soil type of a local area. A look at the local topography helps to decide which soil of the local association prevails in the given area. In very general terms, light-coloured soils on a slightly rolling topography is better suited for arable farming than dark soil in a flat, low-lying basin or river valley.

Grey-brown podzolic soils were among the most favoured, being generally fertile and well-drained yet with sufficient clay content to have good water retention.

➤ **Look for a stream/river in the vicinity.**

It would have served as a reliable water source as well as a recipient of waste/drainage; possibly a source of fish and power for a corn mill.

- **Note the general layout of the abbey: What is the location/orientation of the –**
 - **church?**
 - **chapter house?**
 - **living quarters?**
 - **cloisters?**
- **Record the general layout. Take measurements.**

The general plan of a Cistercian abbey is quite rigid and varies little from one house to another. Augustinian abbeys are more individual in design and layout.
- **Is local stone used in the construction of the abbey?**
 - **Did the type of stone used influence the amount of carved decoration found in the various buildings?**

Sandstone was the sculptor's favourite, but given the austere disposition of the Cistercians, decorations had hardly any place in their buildings. Nonetheless –
- **Look for decorations in the stonework of the church/cloisters/ chapter house:**
 - **Decorative carvings;**
 - **Wall/ceiling paintings (frescoes).**

Some decorations may be of a later date.
- **Is there a lavabo?**

Apart from the famous lavabo at Mellifont, County Louth, there is only one more in the island of Ireland, in a Northern Ireland abbey.
- **Are there any signs of an ambulatory (the walkway around the cloister)?**
- **How is the church divided up? Distinguish between nave, transept, side aisles, chancel, crossing, sacristy etc.**
- **Was part of the nave reserved for the monks and part assigned to the lay community (the populace)?**
- **Is there a tower over the crossing?**
- **If so, was it built at the same time as the church or later?**

The austere building style of the Cistercians did not provide for towers. The tower of Jerpoint abbey was a later addition.
- **Are there any remains of the floor left within the church?**

Was it made of clay/mortar/slabs/tiles?
- **Are there any fortifications:**
 - **Walls with battlements?**
 - **Defensive tower(s)?**

- **Was the abbey later (after the suppression of 1536-40) converted into a fortified manor house?**
 - **If so, what changes have been made?**
- **Can you find the location of the cemetery?**
- **Are there any field systems associated with the abbey that might indicate a deserted medieval settlement?**
- **Can you identify the location of the mill that must have belonged to the abbey?**

The narrowest part of a small river valley is a good place to start looking.
- **Are there any outfarms (granges) associated with the abbey?**

Some of the Cistercian abbeys were very substantial landowners and were unable to farm all the land from the home farm. Arable farming was often carried out on outfarms (granges or granges) that may have had more suitable soil than the immediate surrounds of the monastery. Newgrange was an outfarm of Mellifont Abbey. (See also under *medieval churches*).

Other medieval monasteries

The early (twelfth/thirteenth century) friaries were rather simple in plan and austere in features. From the early fourteenth century, though, the mendicant orders were building impressive churches, often with tall, tapering towers separating the choir area (reserved for the friars) from the nave (where the people [*the populace*] were seated). The most splendid friaries were built during the fifteenth century, mainly in the western part of the country (e.g. Ross Erilly near Galway or Quin near Ennis, County Clare).

Augustinians also built abbeys, Franciscans built friaries and Dominicans built priories. None of them followed as rigid and consistent a regime as the Cistercians. Nevertheless –

- **Apply procedures as under Cistercian abbeys.**

Earth and timber: motte-and-bailey castles

When the Anglo-Normans arrived in the twelfth century, they conquered a large part of Ireland in a short time. To protect their conquest against counter-attacks from an enemy who vastly outnumbered them, they had to build fortifications. The quickest solution to this problem was the building of and-earth-and-timber castles. These usually took the shape of a motte, with or without a bailey. Mottes were artificial earthen mounds with steep slopes and a wooden palisade wall around a flat surface. There would also be a wooden *keep* or castle within the palisade enclosure, or at least a watch tower. A second, much larger, enclosure, a *bailey*, was also frequently built, though less elevated and less strongly fortified. An earthen rampart with internal ditch would normally enclose both motte and bailey. The bailey was connected with the motte, though not always permanently. A fosse with a drawbridge could isolate the motte if the bailey had been invaded. The bailey accommodated soldiers, horses, provisions, etc.

Apart from motte-and-bailey castles, the Anglo-Normans also constructed ringworks. They had a central mound less high than a motte, surrounded by a deep ditch.

In order to save time and effort, the invaders made the best possible use of pre-existing elevations, natural or manmade. So their mottes are frequently found on gravel ridges, but it is becoming increasingly evident that ancient tumuli (as is obvious in the case of Knowth) were topped up or that a motte was built within a Gaelic-Irish rath, perhaps taking advantage of a raised platform. It has been suggested that the word *bailey* is derived from the Gaelic *baile*, and that at least in some cases the bailey is in fact the old ringfort.

There is also evidence that some mottes predate the arrival of the Anglo-Normans.

In the vernacular and on old maps mottes are often referred to as *moats*, which can lead to confusion. A moat is a trench or *fosse* around a castle or earthwork.

Points of attention:

- **Note location:**
- **Is the motte castle guarding an important site, e.g. a river crossing?**

Many motte-and-bailey castles were of course built in strategically important places, but there is now increasing evidence that existing Gaelic-Irish earthworks were often taken over and adapted to the needs of the new lords.
- **Is there a church nearby?**

A majority of Anglo-Norman motte-and-baileys are found near a church or monastery. Churches and monasteries were the centres of wealth.
- **Is the motte near a known Gaelic-Irish tribal seat?**
- **Is the summit of the motte level or concave?**
- **Is there a bailey?**

Less than half the mottes on Ireland have a bailey. There is considerable regional variation though.

 - **Is there an earthen/stone ramp leading from the bailey up to the motte?**

There was sometimes just a wooden gangplank, though often a more permanent ramp was built.
 - **What is the shape (plan) of the bailey? Is it -**
 - **round?**
 - **oval?**
 - **irregular?**
 - **Is the motte located in the centre of the bailey or off-centre?**

Off-centre is the rule.
 - **Is the bailey subdivided internally by earthen banks?**
 - **Are there any traces of earthen/stone buildings inside the bailey?**
 - **If so, are they round or rectangular?**
 - **Is there a stone tower on the motte?**
 - **If so, apply procedures as under *tower-houses*.**
- **Are there any placenames in the area containing any of the elements *motte/mote/moat* or *brittas*?**

The native Gaelic-Irish would, of course, sometimes have called Anglo-Norman mottes 'rath' or 'dun', so placenames can be misleading. (It has been said that the Anglo-Normans were not too anxious to impose unnecessary changes on the native Irish and were happy enough to retain Gaelic placenames) 'Brittas' is derived from the Anglo-Norman *bretasche*, which means a wooden structure and refers to the wooden tower on the motte.

➤ **Is it possible that your motte is a Gaelic-Irish motte?**

Yes, the Gael might have had some motte castles as well. The word *caslán* appears in Irish at about one generation before the arrival of the Anglo-Normans in Ireland. The motte at Kilfinane, County Limerick, is surrounded by trivallate earthworks and lacks a bailey. It is a possible Gaelic-Irish motte.

Some *platform raths* may in fact be Gaelic-Irish mottes! They may be pre-Anglo-Norman or a Gaelic-Irish imitation of a Anglo-Norman motte.

➤ **Is it possible that your motte is a Viking motte?**

There is at least some evidence that Viking mottes existed in the greater Dublin and Waterford areas, named after Viking families. The name 'Danes Fort' can, however, be misleading, as in the nineteenth century, before the origin of remaining motte mounds was known to be attributable to the Anglo-Normans, many mottes and indeed other earthworks were referred to as 'Danes Forts'.

➤ **Was the motte later replaced by a stone castle in the vicinity?**

Ringworks

Ringworks are considered problematic by some authorities. They are virtually indistinguishable from Gaelic-Irish ringforts and may, at least in some cases, be ringforts that were taken over by the colonial powers. There were hardly any motte castles built after the beginning of the thirteenth century, even though considerable colonial expansion took place in Ireland after that date. Do ringworks provide the answer? Or was there no pressure on the conquerors to build 'instant' castles, so that they had time to build proper stone castles?

Points of attention:

➤ **Consider location as under *motte-and-bailey* castles.**

➤ **Apply procedures as under *ringforts*.**

Anglo-Norman stone-castles

The mighty fortresses like Trim, Co. Meath, and Carrigfergus, Co. Antrim, were built from the end of the twelfth century through the thirteenth century AD to about 1310. They were strongholds against the attacks of the Gaelic-Irish who were trying to regain the land conquered by the Anglo-Normans. In the following decades little building took place until 1430 when the era of the tower-house began.

Points of attention:

- **Consider choice of site –**
 - **Is it on a hill-top?**
 - **Is it near water?**
 - **Was the site selected for reasons of defence or easy access?**
- **Was the stone quarried locally?**
- **Is there a moat?**
 - **Was the moat cut into the bedrock and the stone used for building?**
- **Is there any change in masonry, indicating the builders ran out of on-site rock and had to go further afield for more?**
- **Is there a barbican/gate tower?**

A barbican is an outwork fortifying the gate of a castle.
- **Is there a murder-hole in the ceiling of the entry passage?**

These were holes in the ceiling through which large stones could be dumped over intruders.
- **Is there a surrounding curtain-wall (bawn)?**

The curtain wall is the wall between defensive towers. There may be different towers with different floor plans.
- **What are the plans of the towers in the *curtain wall*? Are they –**
- **round?**
- **square?**
- **rectangular?**
- **polygonal (many-sided)?**
- **D-shaped (half-round, closed)?**
- **U-shaped (half-round, open)?**
- **Does the castle have a keep (donjon) or is it keep-less?**

The keep is a tower within the walled area of the castle but not contiguous with the wall. Keep-less castles were often built on high ground where bedrock was near the soil surface; most were built during the late thirteenth century. Kilkenny Castle and Dublin Castle are examples, though both were built around AD 1200. The French term *donjon* is now preferred by some archaeologists to the term *keep*.
- **Is the plan of the *donjon* –**
 - **square?**
 - **rectangular?**

- round?
- polygonal?
- cross-shaped?
- Does the donjon have angle towers (corner towers)? are they –
 - round?
 - square?
- Where is (are) the entrance(s) to the keep? Is it (are they) –
 - at ground level (= first storey)?
 - into the second storey?
 - or both?
- Are there any vaulted ceilings?
 - Between which floors?
 - Why there?

The living quarters - the hall - of the castle lord was normally on the top floor. A stone floor allowed the lighting of a fire in the centre of the hall and also provided some protection if the castle was torched. On the other hand, a vault over the first storey added extra security.
- Are there any corbels in the internal walls on which beams for the support of wooden floors would have rested?
- Is there a Great Hall in the grounds of the castle?

Some castles had a separate building, a hall, within the walls but away from the donjon. It would be used for festive occasions.
- Are there any traces of earthworks left outside the curtain wall?
 - Would these have been the original fortification (a *ringwork*?) before the stone castle was built?
- Any later fortifications?

Medieval castles were unable to withstand bombardment by artillery guns, but many survived and served a purpose well into the gunpowder age. Would-be attackers were often unable to approach with heavy guns under the poor road conditions then prevailing in Ireland. However, castles near a seaport or navigable river or otherwise accessible had to fortify their walls – or expect to become obsolete.
- Any towers filled-in to provide gun platforms? See also under tower-houses and early modern military fortifications.

Moated sites

Moated sites are the leftovers of Anglo-Norman farmsteads, referred to as *grauges* or *granges*. A grange is a moated manor house, though the term is also applied to an outfarm of a monastery, such as a Cistercian abbey. Moated sites were built and occupied from the thirteenth to the early fourteenth century.

Points of attention:

- **Note location**
 - **Why was this location chosen?**
 - **Is the moated site near an old Gaelic-Irish ringfort?**
 - **Is it near a church site?**
 - **Is it near a motte or a ruined castle/tower-house?**
- **Measure the dimensions of the enclosure.**
- **Locate the entrance.**
- **Is the moat inside or outside the bank?**

It was generally outside, though exceptions are known.
- **Is there a water supply nearby to enable flooding of the moat?**
- **Are there any *bastions* at the corners?**

Bastions are projecting gun emplacements at the corners of a fortification, to provide flanking fire against an attacking enemy.

 - **Are the bastions -**
 - **round?**
 - **semi-circular?**
 - **square?**
 - **any other shape?**
- **Any traces of buildings? (See *house platforms*).**
 - **Note the shape and measure the dimensions of the buildings.**
- **Check the distribution map of moated sites.**

It may give a better indication of the extent of the Anglo-Norman-dominated part of the country than the distribution map of motte-and-bailey castles.

 - **Is the site Anglo-Norman or Gaelic-Irish?**

The moated site is of course a typical Anglo-Norman feature, but there is evidence that some of them may be Gaelic-Irish. Some of the leading

Gaelic-Irish families were accommodated by the Anglo-Normans after the invasion and adopted Anglo-Norman lifestyles.

➤ See *ringforts* for points of attention that may be applied here.

Anglo-Norman towns

The heyday of Anglo-Norman town building was in the thirteenth century, followed by a decline in the fourteenth century. The fifteenth century was marked by town renewal. There was much internal development such as the building of fortified town houses, refortification of town defences as well as the building of churches, friaries and castles.

Other medieval towns are the Norse port towns along the seaboard which were flourishing before the arrival of the Normans.

In the sixteenth century a new town type appears in the midlands: the plantation town (1556: Maryborough [Portlaoise] and Philipstown [Daingan]). Both started as military forts (*Fort Protector* and *Fort Governor*) and were later given their respective charter. These towns mark the end of *medieval* urbanisation in Ireland. Then in the sixteenth and seventeenth century followed the plantation towns.

The focus here is on Medieval Norman towns. The classic example of a Norman town is Athenry, County Galway, though a modest village like Clane, County Kildare (which probably was a *rural borough* in the fifteenth/sixteenth century) shows some of the important characteristics like linear layout, castle, church, friary and mill, all in the right places.

Oldtown/Newtown

Sometimes the Normans would build a new town near an existing settlement, often supplanting it. The name element *New* or *Newtown* may (as in *New Ross*; *Newtownmountkennedy*) or may not (as in *Drogheda*) be retained in the new name.

Points of attention:

➤ **Does the town have *one* main street?**

Norman towns had a linear plan, typically with the castle at one end and the church at the other.

- **Where is the market place?**
The main street (high street) served as the market place, though there was usually a triangular widening in one (fairly central) area. Though normally triangular, the place is often called the 'square' or, in Ulster, the 'diamond'.
- **Is there a market cross in the market place?**
 - **If so, is it in its original location?**
- **Are the houses along the main street contiguous?**
Because space was often quite limited, the houses were contiguous (touching each other) and often built with their gables facing the street (see below).
 - **If so, how did people gain access from the street to the plots) behind the house?**
- **Are there a large number of small lanes at right angles to main street?**
Narrow slip-ways leading off the street and under part of the house could be the solution. These are best seen in Kilkenny, but other medieval towns have them too. These little lanes provided access to the yards and *burgage plots* behind the high street houses. They were often built-over to make the best use of available high street frontage.
- **Are the gables of the houses fronting the street?**
Another way of making the most of limited road frontage.
- **Can you identify the burgage plots?**
Burgage plots were allotments given to the town's free citizens (burgesses).
- **Do the town walls/parts of the walls still exist?**
 - **Are there any gates left?**
 - **If so, take measurements.**
 - **Note details.**
 - **Any buttresses supporting the walls? –**
 - **Inside?**
 - **Outside?**
 - **Where was the stone sourced from which the walls were built?**
 - **Is there a moat-like fosse outside the wall?**
 - **Any remnants of earthworks (scarps) to fortify the wall?**
 - **Are they the original early walls or do they date from later times (fifteenth/sixteenth century)?**
- **Is there *one* parish church (or was there *originally*)?**
The system in a Celtic monastery was to have a number of small churches rather than one big one. One large church is a characteristic of Anglo-Norman towns.

- **Is there a Franciscan friary or Dominican priory?**
In the wake of the Anglo-Norman invasion came the mendicant orders. A friary/priory was founded and built outside the town walls but adjacent to them
- **Where was the hospital: in town or outside? Look for placenames like *Maudlins* or *St Magdalene's*.**
- **Any early suburbs?**
- **Is there an Englishtown/Irishtown division?**
The Irish were not allowed to live within the town, so they had their settlements outside the walls in 'Irishtown'.
- **Is there a cathedral?**
A cathedral was the church of a bishop. Early cathedrals were quite small.
- **If so, who was the patron that sponsored the building?**
- **Are there any curved/circular/oval street patterns in an otherwise linear town?**
Where the town was built adjacent to the site of a Celtic monastery (as was often the case), curved streets would mark an old ecclesiastic boundary. Kilkenny shows this feature quite clearly, so do Kells and Armagh. Traces can also be seen in Trim, County Meath and Kilcock, County Kildare and others.

Towns and Villages

It is generally accepted that towns in Ireland are either **Norse settlements** (mainly the seaside towns) or **Norman towns**. However, the fact that in some of the early medieval literature the major monastic settlements (e.g. Kildare, Clonmacnoise) are referred to as *civitas* ("city") leaves some doubt about the status of those settlements.

The Norse seaside settlements have all survived and thrived as towns or cities, while little is known about Norse inland settlements. Leixlip, County Kildare, always had the status of a village, though it has grown immensely in recent years and now compares well in size and population with many towns.

The Norman towns are the medieval walled, mainly inland, towns; some of them have declined in size and importance, like Carlingford, Co. Louth and Thomastown, Co. Kilkenny.

There also existed in medieval times a settlement type best described as a **rural borough**, which was essentially a village with certain privileges of a town.

Most of the villages, as we now know them, date back to the seventeenth and eighteenth centuries. There were –

- **Landlord villages or estate villages**, founded by the local landlord to provide services to the estate;
- **Industrial villages** founded to accommodate the workers employed in early industrial enterprises and the services required by them;
- **Chapel villages** which had grown around the chapels that served the Roman Catholic community during *penal times*;
- **Monastic villages** that continued after the decline of a monastic settlement;
- **Canal villages** that grew with the development of the canal waterways, often around a canal hotel;
- **Bord na Móna** villages built in the twentieth century to accommodate the workers of peat processing plants.

Villages were not farming communities but provided services like trades, shops, pubs, church and school. There was, however, a farming ‘village’ type to be found in Ireland, which is discussed in a textbox elsewhere.

It should be noted that while some towns degraded into villages, some villages have prospered and are now recognised as towns, like Birr, County Offaly or Ballinasloe, County Galway.

Early Modern military fortifications

With the advent of gunpowder and the use of artillery (the key date for Ireland is 1488), Medieval castles had essentially become obsolete. A new type of fortification was needed to withstand artillery fire and to allow the effective use of artillery against an attacking enemy. Fortifications moved away from high walls and tall towers to low ramparts with earthen scarps or counterscarps that were able to absorb a cannonball. Field defences – and initially, town defences as well – were made of earthen banks while for permanent forts masonry was increasingly used.

Examples of military forts can be seen in the Phoenix Park in Dublin (the Magazine Fort) Kinsale (Charles Fort) and at Shannonbridge, County Offaly*.

Points of attention:

- **Note location, is it –**
 - **A harbour fortification?**
 - **A coastal fortification?**

The west coast of Ireland offers access to a potential invader even where there is no formal harbour or seaport.
 - **A town defence?**
 - **A fort around which a plantation town was built?**
 - **A fort protecting a river (Shannon?) crossing?**
 - **A fieldwork protecting an important road?**
 - **A temporary campaign fort?**
- **What is the main building material –**
 - **earth?**
 - **stone?**
 - **concrete?**
 - **a combination of those?**
- **Study, measure and draw the layout of the fort.**
- **Is the layout –**

* The fort is in fact in County Roscommon.

- **rectangular?**
- **star-shaped?**
- **round?**
- **polygonal?**
- **irregular?**
 - During the early years of Henry VIII, a number of circular coastal forts were built, while towards the end of his reign the more complex Italian system (star-shaped) was adopted.
- **Look for bastions at the corners. Are they –**
 - **square?**
 - **round?**
 - **half-round?**
 - **lozenge-shaped?**
 - **Did they allow flanking fire to cover an attack on the main rampart/curtain wall?**
- **Are there any structures in the wall that would allow flanking fire to cover the bastions?**
 - The complex star shape of some continental-type forts served that purpose. There are often triangular *ravelins* between two bastions.
- **Look for the following features (for definitions, see glossary): –**
 - **blockhouse**
 - **a citadel**
 - **A citadel in a walled town would have been the final retreat, comparable to the keep or donjon in a medieval castle.**
 - **bastions**
 - **demi-bastions**
 - **a banquette**
 - **a barbette**
 - **a breach in the wall, perhaps repaired?**
 - **buttresses**
 - **remains of a capponiere**
 - **casemates**
 - **counterforts**
 - **a counterguard in front of a bastion**
 - **a counterscarp on the outer side of the ditch**

- **a crownworks**
- **gun embrasures**
- **revetments**
- **salients**
- **a scarp**
- **the terreplain**
- **Look for defensive earthworks in the landscape**
There are still some seventeenth century earthworks in existence, some of them not yet identified or recorded.
- **Look for military barracks**
 - **Barracks in a town: defensible against insurgents without heavy weaponry**
 - **Barracks along Military Roads.**
- **Citadel in a town: a fort within a fortified town – defence against insurgents as well as external enemies.**
- **Fortifications from the Napoleonic wars: Seaports, shore lines and Shannon crossings.**
The numerous Martello Towers date from that period (early nineteenth century). There are c.140 Martello Towers around the Irish coastline, most of them concentrated in the Dublin region. Since it was considered futile to defend the Irish west coast against a French invasion, a defence line was built along the Shannon. This also included some inland Martello Towers (as at Banagher, County Offaly). A strong artillery fort was built at Shannonbridge, and Athlone Castle was reinforced to withstand artillery fire.

Vernacular houses

It must be kept in mind that apart from passage tombs, castles and cathedrals, the vernacular house is also part of our heritage, and studying its different shapes, forms and manifestations can be as rewarding as studying any of the great monuments. Vernacular houses are now an endangered species, as they no longer live up to our present day expectations of comfort and convenience, yet they are important monuments of a history that reaches right into the present or at least the very recent past.

Some of the houses that you will investigate may be or may once have been the dwellings of small and indeed not-so-small farmers. This will become obvious from their location and association with outbuildings and farmyard enclosures.

The country cottage that was not a farmhouse was primarily the home of the rural worker: the labourer on a large farm or estate as well as the village craftsman or county council worker. The town cottage was the home of the artisan or the worker in a mill or brewery or the employee of the local authority.

In addition, wealthy landowners built some of the more fanciful cottages as hunting and fishing lodges, summer houses or follies.

Points of attention:

- **Note location**
- **Is the house part of a present-day farmstead?**
- **Is it part of a former farmstead that has been abandoned and replaced by the present one?**
- **Is it a dwelling house or an outhouse?**
 - **If an outhouse, was it perhaps once a dwelling house?**
 - **If it was always an outhouse, can you determine its original purpose, e.g. dairy, piggery, store etc.?**
- **If the house is not a part of a present or former farmstead –**

- **What was its reason for being here? Look at access, roads, proximity to a manor house/castle etc.**
- **Does the house give any indication as to the trade/ occupation/social standing of its (former) inhabitant, e.g. blacksmith, thatcher, labourer etc.?**
- **What is the material of the walls: stone/mud/brick?**
- **How many rooms are there in the house?**
- **Are the rooms connected by a hallway or do doors lead directly from one room into another?**
- **Where are the windows? At the gables or the sides?**
- **Where is the door?**
- **Is there a second door on the opposite side?**
- **Has the house been extended from its original size? If so, in what way?**
- **Take measurements –**
 - **dimensions of the building;**
 - **thickness of the walls;**
 - **height of the ceiling (if still in place);**
 - **sizes of doors and windows;**
- **Compare the height of the doorway(s) with that of a modern house.**
- **Draw a plan of the house.**
- **Is the house gabled, hipped or half-hipped?**

In a gabled house the roof slopes up from the longer side walls, while the shorter walls continue as a triangular gable between the roof slopes.

A hip-roof slopes up from all four sides. A half-hipped roof slopes from half-way up the gable.

In a half-hipped building, the shorter walls go up straight for a short distance above the height of the longer walls before the hip-roof begins.
- **Which of the three types is characteristic for your area?**
- **Does the house have one/two doors?**
- **Where is the single door placed, relative to the hearth?**
- **Where is the second door placed?**

If there is a back door, there may be some local superstition regarding visitors entering or leaving through it.
- **Is either door a half-door?**
- **Which one?**
- **Or both?**

- **What is the advantage of a half-door?**
- **Where are the windows? Any windows at the front (near the front door)? Any windows at the back?**
- **Any windows at the gables? Upstairs/downstairs?**
Gable windows are never downstairs but they are found where the house has been raised and a room or rooms have been created upstairs.
 - **Casement or sash windows?**
 - **Sill present/absent?**
 - **How many panes?**
 - **How many windows can be opened?**
- **Measure the area of each window and express it as a percentage of the floor area. How does the window-to-floor ratio compare with that of a modern dwelling house?**
- **How would an open half-door improve the situation?**
- **Where is the chimney located?**
- **What was it made of?**
- **Has the inside of the chimney been lined with clay/steel flue liners?**
- **Does the ceiling of the cottage run horizontally from wall to wall or does it follow the slope of the roof?**
- **Is there or was there a loft at one or both ends of the house?**
A simple loft was sometimes built into the roof-space to provide storage or sleeping accommodation for some members of the family.
 - **If present, is it original or was it raised at some stage?**
- **Is there a porch?**
 - **Is it original or was it added on at a later stage?**
- **Is there a *bed-outshot* (nook/alcove/niche) close to the hearth?**
Outshots are found mainly in the northern half of the country. They would occasionally be big enough to take a double bed and were the sleeping accommodation for senior members of the household (the children would sleep in the unheated bedroom).

The one-room cottage

The one-room cottage is the smallest and most basic form of the linear house.

Points of attention:

- **Does the house in any other way reflect the economic or social status of the occupant?**
 - **Mud floor?**
 - **Rough roof timbers?**
 - **Rough ceiling (no panelling)?**
 - **Wooden fireplace and flue (in peat-burning areas)?**

- **Is there any (real or implied) subdivision into cooking-, eating-, sleeping areas?**

- **Does it house the farm animals as well as the family? Is there any evidence that the house was once a *byre-house*?**

This may sound like one of these poor jokes often made at the expense of PADDY THE IRISHMAN AND HOW ARE THE PIGS IN THE KITCHEN, but in centuries past it was common practice - and not only in Ireland - to share the accommodation with the farm animals, at least the more delicate ones like ponies and goats, and the cows at calving time. Besides, the animals helped to keep the place warm.

The answer to the question above, if directed at a house still lived-in, is probably *no*, but if it is derelict –

- **Is it built on a slope with a slope or step in the floor?**

It was, of course, important that any animal effluent was able to drain away and would not flow into the kitchen
- **Is there a drainage channel going out the back door?**
- **Are there any posts/post-holes in the floor or rings in the wall to which animals might have been tied?**
- **If there is no clear evidence that it once was a byre-house, are there any signs of a conversion?**

The two/three-room house

Points of attention:

- **Are you looking at a linear house?**

The linear house is the true Irish *vernacular* dwelling, i.e. it is 'native' to this country. It is a house whose width or *depth* was determined by the length of

timbers available to build a roof over the distance from one side-wall to another, i.e. 3.5 - 5m. So the house is never more than one room deep.

It may have started off as a one-room house and may have been extended in a linear fashion as the owner or successive generations of owners became more affluent, or the need for more living space may have called for the addition of a loft, but it would rarely if ever have been extended in depth, except in very recent times where a lean-to was often the preferred option.

- **Which is the main room of the house?**
- **How many functions does it serve?**
- **Is there evidence that the house was first built as a one-room cottage and was later extended?**
 - **Where is the extension built on?**
- **Is there an upstairs?**
 - **If so, how is it accessed?**
- **Is there one central fireplace in the main room?**
- **Is there a fireplace in every room?**
- **Is/are the fireplace(s) built into the central wall or into the gable(s)?**
- **Measure width and depth of the fireplace.**
- **Has a modern flue been built into a traditional fireplace to improve draught and reduce down-draught?**
- **Is there a crane from which to hang cooking utensils?**
- **Is there a bellows to fan up the smouldering embers in the morning or whenever the fire has died down?**

Mudwall houses

Some of the old farm houses and cottages in Ireland may still be mud-wall houses. Areas where they are rarely found are some mountainous regions, mainly in the west, where stone was plentiful and accessible and good clay was hard to come by. Generally, stone was expensive: it had to be quarried and perhaps transported over great distances, so only the privileged few were able to afford it. Also, stone buildings were heavily taxed. On the other hand, good heavy 'yellow clay' was the common subsoil in the fertile regions of Kildare and Meath. When fully roofed and plastered, it is virtually impossible to tell by looking at the walls whether a house is built from mud or stone. However, some are in quite a dilapidated state and are worthwhile objects for study before they are gone altogether.

Points of attention:

- **Look at the building material where it is exposed: What actually is the 'mud' that was used?**
- **What has been used to reinforce the mud?**
Straw was commonly used, but there might be wooden sticks, indicating some kind of wattle or wickerwork.
- **Can you identify the place where the mud was dug? Look at the proportion/shape/size/colour of the stones that are mixed in with the clay and compare the mixture with the subsoil in the vicinity of the building, where it is exposed.**
- **Does the roof have a sufficient overhang to protect the mud-walls against severe or prolonged rain?**
- **How are the walls finished?**
- **Rendered with lime plaster?**
- **How many layers?**
- **Lime-washed?**

Stone houses

Points of attention:

- **Is the house built from local stone?**
- **Are the walls drystone walls or are they mortared?**
- **Was the mortar used dry mortar or wet mortar?**
- **Are the stones –**
 - **irregular in shape and sharp-edged - quarried**
 - **rounded stones from a gravel pit or a storm beach?**
 - **flat but surface gathered?**
 - **ashlar stones?**
Ashlar stonework involves stones hewn into a rectangular shape. It was never used in vernacular building (i.e. the building of houses by farmers, craftsmen and other country people) but some landlords built cottages on their estates or sometimes entire villages in the early nineteenth century. Ashlar is also found in later local authority estates.
- **If ashlar stones are used, are they perhaps recycled?**

Where well-cut ashlar stones are found in random locations in a wall, that indicates that they may have formerly served as quoins in the corners of another building; therefore they have been reused.

- **Are the walls coursed, i.e. are the stones laid in distinct horizontal layers or courses?**
- **What is the quality of stonework at the corners? Any ashlar stones used as quoins?**
- **Are the walls rendered with plaster?**
- **Has the plaster been recently removed to expose the original stonework?**

Suggestions for project work on nineteenth/twentieth century cottages

A large number of estate and industrial cottages were built during the nineteenth and well up to the middle of the twentieth century. Some were in the country and others in towns and cities; some were detached, others semi-detached or terraced. These cottages varied considerably from the vernacular cottage of earlier times; many were built of fine, well-dressed stone, brick or a combination of the two. Here are some examples worth studying:

- **Gate-lodges and other estate cottages**
A well-presented gate-lodge could make quite a statement about the affairs and attitudes of the landlord to an arriving visitor. Decoration and finish was often deemed more important than space and comfort for the inhabitant. Other cottages on the estate were built also to the same effect. Some landlords built whole villages from beautifully dressed ashlar blocks or other outstanding materials.
- **Lock-keeper's cottages**
The locks of the Grand and Royal Canals were operated by hand and the lock keeper and his family lived in the cottage next to the lock.
- **Railway cottages**
The Railway companies provided accommodation for their workers in terraced cottages.
- **Level crossing operator's cottages**
Like the lock keeper, the level-crossing operator lived on-site
- **Seaside cottages for lower middle class visitors**
With increased mobility after the advent of the railway seaside cottages were built to accommodate the less-well-off holidaymaker.
- **Tramway company cottages**

The Tramway companies built accommodation for their workers like the railway companies.

➤ **Artisan cottages**

In Dublin, artisans' cottages were built to move low-paid skilled workers out of the slum-like conditions into respectable neighbourhoods.

➤ **Land commission cottages**

➤ **County council cottages**

APPENDIX I – GLOSSARY OF ARCHAEOLOGICAL TERMS

AISLE	A side division of the NAVE of a church
ALLÉE COUVERTE	See gallery grave
AMBULATORY	A (usually) covered walkway around a CLOISTER GARTH
ANTAE (SINGULAR: ANTA)	Projections of the side walls beyond the gables of a building, usual in early Christian churches
ANTROPO- MORPHIC	In the form of a human outline
APSE	Semicircular or polygonal end of a CHANCEL, for the altar
ARCADE	A series of arches on columns
ARTEFACT, ARTIFACT	A manmade object
AVENUE	Two parallel rows of standing stones or a grand ceremonial way bordered by ditches and banks of earth leading to a ceremonial centre, such as at Stonehenge
BAILEY	An enclosure for soldiers, livestock and support services at the foot of a MOTTE
BANQUETTE	An infantry fire step behind the parapet
BARBETTE	Breastwork of a BATTERY without any EMBRASURES
BARBICAN	An OUTWORK fortifying the gate of a castle or walled town
BARREL VAULT	A semi-cylindrical VAULT

BARROW	Round or long mound of earth over burial chamber or deposit. Many different shapes and often extended surrounded by a ditch. A long barrow is an tumulus, an unchambered long barrow is a long tumulus without a burial chamber, and a chambered barrow is a tumulus containing a tomb, generally megalithic
BARTIZAN	An overhanging defence TURRET
BASTION	A tower or gun emplacement projecting from the corner of a fortification
BATTER	The reduction in thickness of a wall with increasing height, generally rising from ground level
BATTERY	A part of an artillery fortification, guarding an approachable area
BATTLEMENT	A parapet wall with alternating EMBRASURES and crenels (raised portions)
BAWN	The walled courtyard of a TOWER-HOUSE or FORTIFIED HOUSE; originally the curtain wall enclosing the courtyard
BEAKER PEOPLE	Continental people who first entered Britain around 2600 BCEE, their name coming from the distinctive and elegant pots that were often buried with the dead under round barrows. They may have been the first metal-users in the British Isles
BEEHIVE HUT	A round CORBELLED building made of dry-stone; generally a monk's cell in an early Christian monastery along the western seaboard but also built for other purposes
BELL-COTE	An upward extension of the gable wall, rising above rooftop level, with an opening for a church bell; sometimes called bell-ope
BLOCKHOUSE	See BATTERY
BLUESTONES	The name given to the mixture of stones, mainly of dolerite, probably from the Preseli mountains of Dyfed, used at Stonehenge
BOSS	A raised knob, as found on some HIGH CROSSES

BREACH	An opening in a wall or BASTION made by artillery fire or mining
BROCH	Round tower-like drystone structure, confined mainly to the North and West of Scotland, and dating to the Iron Age
BRONZE	Alloy of copper (dominant) and tin or lead
BRONZE AGE	Period from 2200 to 800 BCE, after the Neolithic and before the Iron Age, characterised by the use of bronze for the manufacture of tools and weapons
BULLAUN	A stone with one or more round depressions; used as a mortar for grinding or pounding seeds
BULWARK	The 16 th and early 17 th century term for a BASTION or gun emplacement
BURGUNDIAN ARCH	An arch with a flattened top
BURIAL CHAMBER	The burial or funerary chamber is a stone or wooden construction greater than 2 x 1 m externally and 1 x 1 m internally: these measurements distinguish it from the cist. The chamber usually contains collective graves, either inhumations or cremations; a single internment is much rarer
BUTTRESS	A projecting support of brick or stone built against a wall
CAHER, CAHIR	A dry-stone fort
CAIRN	A mound of stones
CAIRN	Round or long mound of stones, often covering chamber or burial (sometimes used for earth mound)
CAPITAL	The head of a column, usually supporting an arch
CAPPONIERE	A covered passage way in the dry ditch from the fortress to an OUTWORK
CAPSTONE	A flat, horizontal stone resting on the ORTHOSTATS of a MEGALITHIC tomb, or capping a CIST, a BEEHIVE HUT or other drystone structure

CASEMATE	A vaulted chamber within the rampart or bastions of a fortress, for living quarters or storage; also as a defence if provided with LOOPS or EMBRASURES
CASHEL	A dry-stone ring-fort or stone enclosure
CENTERING	Wooden framework (often WICKERWORK) used in arch and vault construction
CHAMBER TOMB	Common form of tomb, comprising ORTHOSTATS, sometimes with interstices filled with drystone walling, and megalithic CAPSTONE over burial chamber approached by passage
CHAMBERED CAIRN	Chamber tomb covered with stones
CHANCEL	Part of the church east of the NAVE and CROSSING, containing the altar
CHAPTER HOUSE/ ROOM	The room in an abbey where the abbot would address the assembled monks
CHEVEAUX-DE-FRISE	Upright stone spikes placed around a fort as part of the defence system
CHEVRON	A V- or inverted V-shape
CHOIR	The CHANCEL of a church
CIST (GRAVE) (pronounced KIST)	A rectangular or polygonal grave made of stone slabs, either in the ground or on the surface; surface cists usually covered by a TUMULUS or CAIRN
CITADEL	The final stronghold within a fortified town; for defence against external enemies as well as against insurrection from within the town
CLOCHÁN	A BEEHIVE HUT
CLOISTER	A square open area within a monastery, alongside the church, surrounded by a covered AMBULATORY
CLOISTER GARTH	The open square of a CLOISTER

COLONNADE	A row of columns
CORBEL	A projecting stone used to support a beam or upper wooden floor, or a roof
CORBELLING TECHNIQUE	A method of roofing a circular building where each successive layer is projecting inward until they nearly meet at the top
COUNTERFORT	An interior BUTTRESS against the retaining wall of a SCARP or COUNTERSCARP
COUNTERGUARD	An outwork of two faces forming SALIENT angle, in front of BASTION
COUNTERSCARP	A sloped earthwork face or retaining wall on the outer side of the ditch
COURT CAIRN	A GALLERY GRAVE
COURT CAIRN	Kind of long chamber tomb occurring in northern Ireland and SW Scotland. Generally more elaborate than horned cairns
COVE	Three standing stones, one at the back, two at the sides like an unroofed sentry-box
CRANNOG	A dwelling on a (usually artificial) island; or the artificial island itself
CRANNOG	Lake dwelling site, built on a small island which is often at least partly man-made
CREMATION	Burning of the dead, before burial or disposal. Ashes often placed in urns
CROMLECH	Usually a DOLMEN or PORTAL TOMB; term now rarely used
CROSSING	The area in a church where NAVE, CHANCEL and TRANSEPTS meet to form a cross-shape
CROSS-PILLAR	See CROSS-SLAB
CROSS-SLAB	An early Christian stone slab carved with one or more crosses; often a gravestone

CROWNWORK	An OUTWORK consisting of a BASTION flanked by DEMIBASTIONS at each side, linked by RAMPARTS
CRUCIFORM	Cross-shaped
CRYPT	An underground VAULT or chamber beneath a church; often used for burials
CUP MARK	Cup shaped depression carved out from stone. Often grouped together, they are the result of a repeated ritual gesture of unknown significance
CUPOLA	A domed roof or ceiling
CURTAIN WALL	The defensive wall of a castle or fortress, between the towers/BASTIONS
DEMESNE	Enclosed garden around a mansion; a lordly estate
DEMIBASTION	A half-BASTION with one FACE and one FLANK
DIAMOND	In Ulster, the green or square of a market town
DOLMEN	A PORTAL TOMB; sometimes loosely applied to WEDGE TOMBS and Boulder burials
DOLMEN	Simple megalithic burial chamber with three or more uprights and one or more capstones
DONJON	An old word for a KEEP, though still preferred by some archaeologists; also refers to a prison chamber under the floor of the keep
DRYSTONE WALLING	Walling built without any mortar or cementing material
DUN	Gaelic for fortified place; to archaeologists meaning a small drystone fort, usually dating to the Iron Age or later
EARTHWORK	A structure, usually defensive in nature, made of heaped-up earth
EMBRASURE	A placement for a gun or cannon; also the widening area within a narrow window

ENTRANCE GRAVE	Sometimes called Undifferentiated PASSAGE GRAVE where no distinction is made between the passage and the burial chamber
FAÇADE	Setting of upright stones flanking the entrance to a chambered tomb
FACE	One of the two sides of a BASTION etc. facing the field
FLANK	One of the two sides of a BASTION linking the FACES to the CURTAIN
FLANKERS	The two stones which adjoin the prostrate stone in a recumbent stone circle. The flankers are often the tallest stones in the circle
FLINT	A hard glassy rock which flakes easily and can be worked to produce a sharp cutting edge. Used in prehistoric times for the manufacture of tools and weapons such as scrapers and arrowheads
FLYING BUTTRESS	A BUTTRESS starting a short distance away from and arching against the external wall (of a GOTHIC cathedral) to absorb the outward pressure of the weight of the roof
FORECOURT	The space in front of the concave façade of certain British, Iberian or Italian monuments. See also Giants' Tomb and court cairn
FOSSE	A ditch
FRESCO	A wall painting, painted while the plaster is still wet and this absorbing the colour
FULACHT FIA	An ancient cooking-place; a trough or pit filled with water into which heated stones were placed; believed by some to have served as baths or for brewing beer
GALLERY GRAVE	A Stone Age megalithic tomb consisting of a long chamber divided into burial compartments with a courtyard in front of the entrance; also called COURT CAIRN
GARDEROBE	The latrine or toilet in a castle; a small room with a shaft leading downward to the outside
GARRISON	The troops stationed in a castle, fortress or town to defend it

GOTHIC	An architectural style, featuring pointed arches, rib VAULTS, fluted pillars and FLYING BUTTRESSES; dominant European architecture from late 12 th century to the end of the Middle Ages
GRAVE GOODS	Funeral offerings placed inside or near a tomb. They are often the only means of establishing the time of construction of a monument, as the oldest remains are taken as being the nearest to that time
HAMMERSTONE	Stone, often a river or beach pebble, which has been used as a pounding tool. Identified by patches of damage on one or both ends
HEAD STONE	The stone slab in the wall of a megalithic chamber which faces the tomb entrance
HENGES	A circular ritual enclosure surrounded by a bank and (inner) ditch; found in Britain and (less frequently) in Ireland; term sometimes applied to STONE CIRCLES; some henges originally had an outer ring of wooden posts, presumably connected by LINTELS
HIGH CROSS	A tall, free-standing stone cross, usually ringed and divided into panels decorated with BOSSES, abstract patterns and/or biblical scenes
HILLFORT	A large Iron Age (or earlier?) hilltop enclosure surrounded by an earthen or stone RAMPART (or multiples); many contain the outlines of huts and were probably defended villages
HORIZONTAL MILL	A simple watermill driven by a horizontal wheel with vertical shaft (no gearing!)
HORNED CAIRN	Partly enclosed façade of cairn; it can be at front and back
INHUMATION	Burial of dead body (as opposed to exposure or cremation). Position may be extended, flexed or crouched, and prone, supine or on side
IRON AGE	Final period of prehistory, beginning around 500 BCEE and lasting into the early centuries of the first millennium AD. Iron superseded bronze as popular material for the manufacture of tools and weapons
KEEP	The main tower of a castle, usually free-standing, with living quarters; also the final retreat of a besieged GARRISON; a DONJON

KERB	Ring of contiguous retaining stones against an earthwork or mound to keep the earth in place
KERB-STONES	Stones placed around the edge of a TUMULUS to keep the earth in place
LA TÈNE	Celtic art style, featuring abstract and mostly curvilinear motifs; the period during which the style prevailed
LIGHTS	The sections of a window resulting from its division by MULLIONS and/or TRANSOMS
LINTEL	A flat stone placed across the tops of a doorway; a stone or wooden pole placed over two uprights (as at Stonehenge)
LIS, LÍOS	An earthen fort or enclosure
LOOP	A narrow, usually unglazed window, suitable for firing arrows or guns/pistols
MACHICOLATION	A small gallery projecting from the outside wall of a castle or tower, usually above the doorway or at the corners, with openings in the floor through which stones can be dropped on an attacker
MANOR	The land kept by the lord for his own use; sometimes the dwelling house of the lord
MARTELLO TOWER	One of a large number of small round towers built around the Irish (and English) coast during the Napoleonic wars; a small number also at Shannon crossings
MEGALITHIC	In the context of prehistoric monuments meaning made of large stones
MENHIR	Breton word for a single standing stone, but sometimes used loosely for other megalithic monuments
MESOLITHIC	Middle Stone Age, between Paleolithic and Neolithic, from around 7000 BCE to 4500 BCE
MOAT	A ditch around a castle, usually filled with water ('wet moat' as opposed to 'dry moat'); the term often loosely applied to a MOTTE
MOATED SITE	The Site of an Anglo-Norman manor house, enclosed by a rectangular moat-and-bank

MONOLITH	A single stone, usually planted upright as a STANDING STONE
MONOLITH	Single stone block, monument or pillar. This word comes from the Greek monos(one) and lithos(stone)
MOTTE	A man-made earthen mound with a flat top, originally carrying a PALISADE defence and a wooden castle, usually with a BAILEY at its base or surrounding it
MOUND	Of either earth or stone pebbles, generally covering a burial chamber or deposit
MULLION	A vertical post or stone dividing a window into two or more LIGHTS
MURDER HOLE	An opening in the ceiling of an entrance passage to a castle through which hot liquids were poured on invading enemies
NAVE	The main (western) part of the church where the people sit
NEOLITHIC	Period when settled farming superseded nomadic life, from around 4500 BCEE to 2200 BCEE
OBSIDIAN	Very hard volcanic glass used for Stone Age tools. It can be dated by measurement of the thickness of the hydration layer on its surface
OGHAM	The earliest known Irish script (4 th -6 th century, possibly earlier), usually chiselled into the edge of an upright ogham stone
OGHAM (OGAM)	Ancient alphabet, in which letters are formed of parallel lines which meet or cross a base-line. Possibly of Irish origin
ORDER	One of a number of receding lines of carved stones in a Romanesque or Gothic arched doorway
ORTHOSTAT	An upright stone in a megalithic tomb
ORTHOSTAT	Large stone or slab, set vertically in a structure
OUTWORK	A detached forward structure forming part of a defence system

PALE, THE	In the 15 th and 16 th centuries, an area comprising parts of counties Louth, Meath, Dublin and Kildare, in which the English crown had effective control; term also used to denote the (uncompleted) earthworks which were built to defend the area
PALEOLITHIC	Old Stone Age, begins around 500.000 years ago and ends with the Mesolithic around 7000 BCE
PALISADE	A defensive wall made of upright, pointed wooden stakes
PARAPET	A breast-high wall on a platform or walkway at the top of a building or RAMPART
PASSAGE GRAVE	A stone age grave or tomb where a stone-lined passage leads to the burial chamber
PASSAGE GRAVE	Passage (sometimes with lateral chambers) leading to a broader burial chamber, often roofed, within round mound (which may be kerbed). Façaded forecourt entrance common
PAVING	Stone slabs on passage and chamber floors. In a megalithic tomb, paving stones superimposed on each other may indicate several phases of use.
PILASTER	A part of a column projecting longitudinally in a wall
PLINTH	The projecting part of a wall, usually near ground level
PORTAL	An elaborately constructed and decorated doorway (as in a cathedral)
PORTAL STONES	Large stones forming the entrance to a structure, usually a tomb
PORTAL TOMB	A Stone Age or early Bronze Age megalithic tomb, also referred to as a DOLMEN or, rarely, a CROMLECH; consisting of at least three ORTHOSTATS and one CAPSTONE; two of the orthostats are usually of similar height and shape to serve as the jambs of a doorway or PORTAL; originally covered by a mound or CAIRN
QUOIT	Cornish name for burial chamber

RAMPART	The main defensive bank or wall of a fort etc.
RATH	An earthen fort or enclosure
RECUMBENT STONE	One large stone lying horizontally between two uprights in a STONE CIRCLE, usually opposite the entrance
REFECTORY	The dining hall in a monastery
REVETMENT	The retaining wall of a fortification or ditch
RING BARROW	A small Iron Age burial structure, circular and surrounded by a bank and inner ditch
RINGFORT	A round or oval enclosure made from stone or an earthen ditch-and-bank
ROCK-CUT TOMB	An underground monument hollowed out of solid rock, and generally designed to take a collective burial. Rock-cut tombs are frequently found in the Mediterranean basin
ROMANESQUE	Architectural style common in Europe from the 9 th to the 12 th century (in eastern Ireland, 12 th century only, in the West persisting into the following century)
ROUND TOWER	The stone-built bell tower in an Irish Early Christian monastery, also a watch tower and retreat in times of danger; with a normally elevated entrance, generally four storeys with one window each and a fifth storey with four windows; finished with a conical roof
SACRISTY	An annex attached to the side of a church where vestments, communion gear etc. are kept
SALIENT	A projecting angle in a defence work
SARSEN	Sandstone lying on Wiltshire Downs, in England; used for Stonehenge and Avebury, though not exclusively
SCARP	The sloping front of the RAMPART rising from the bottom of the ditch to the base of the PARAPET, either an earthwork slope or a masonry/brickwork REVETMENT

SCHIST	Fine-grained metamorphic rock, altered after formation by heat or pressure or both, so that mineral content is in roughly parallel layers. It can therefore be split into thin plates
SCRIPTORIUM	A room or building in a monastery used for writing
SEDILIA	Wall seats in a church
SHEELA-NA-GIG	Small sculpture with pronounced female sexual features, generally found in castles and churches
SHERD	A piece of broken pottery
SHIELD	A design carved or chipped out on the slabs of Breton tombs. It is a highly version of an anthropomorphic figure
SHINGLE	A thin wooden roof slate
SLAB	Flat thin-ish dressed stone
SOUTERRAIN	An underground structure consisting of a passage or sometimes a more complex system with chambers, creeps etc.; usually built with dry-stone; served as hideout/escape route and/or as storage place
STANDING-STONE	A single upright MEGALITHIC stone (MONOLITH), set in the ground
STANDING STONE	Lone vertical stone; see Menhir
STELE	Monolith of modest size (less than 75 centimetres high) with one face only decorated with cut-away carving or low relief sculpture
STOCKADE	A defensive structure made of contiguous vertical stakes
STONE ALIGNMENT	A series of STANDING STONES in a straight line, often arranged according to height
STONE CIRCLE	Ring, which may not be circular, of spaced or contiguous standing stones; sometimes roughly (and very rarely completely) dressed

STONE ROW	A STONE ALIGNMENT
STONE ROW	Sometimes alignment. Line of regularly spaced standing stones
SWEATHOUSE	A dome-shaped structure built from stone with low entrance; heated by fire (before entering); an Irish 'sauna'
TERREPLAIN	The fighting platform on the RAMPART, protected by the PARAPET
TÊTE-DU-PONT	A bridgehead fortification
THOLSEL	Originally a toll house, later sometimes a town hall (as in Kilkenny)
TOGHER	A wooden trackway across a bog; sometimes applied to any kind of bog road
TOMB	Term broadly used to denote a megalithic burial place; preferred to the term grave since grave suggests an underground burial or interment
TOWER-HOUSE	A tall, usually rectangular but sometimes round, stone castle prevalent 15 th to early 17 th century
TRANSEPT	The side arm of a cross-shaped church, running north-south at right angles to the NAVE and CHANCEL
TRANSITIONAL	Intermediate style between ROMANESQUE and GOTHIC, containing elements of both
TRANSOM	A horizontal bar of wood or stone across a window; also the horizontal bar of a HIGH CROSS
TRILITHON	A structure made up of three stones: two uprights and a horizontal lintel. Three trilithons stand within the sarsen horseshoe at Stonehenge
TUMULUS	A (usually earthen) mound
TUMULUS	Latin for mound or barrow; generally covers a burial, in a chamber (as in French use of word) or not
TURRET	A small tower, usually projecting from the corner of a larger tower

TYMPANUM	A semi-circular wooden or stone slab over a doorway
VALLUM	An earthen bank
VAULT	An arched ceiling
WALL-WALK	A walkway inside the PARAPET at the top of a wall
WATTLE	Woven wooden sticks used for building walls and fences; wattle walls were often plastered ('daubed') with clay
WEDGE TOMB	A Bronze Age or late Stone Age megalithic tomb wider at the front end than at the back; originally covered by a mound or cairn
WEDGE TOMB	Irish type of chamber tomb which tapers slightly from entrance inwards beneath mound; sometimes with parallel outer walls either side
WICKERWORK	Woven wooden twigs used for making baskets, mats, fences etc.
WINGS	Some megalithic mounds present a concave façade with its two extremities ending in extensions known as wings or horns. They define a partly enclosed space described as the forecourt of a HORNED CAIRN. See also COURT CAIRN

APPENDIX II – GLOSSARY OF IRISH WORDS IN PLACENAMES

Irish Words/ Elements occurring in original place- names	English Translation	Word Elements occurring in Anglicised place-names
abha, dat. abhainn	a river	a, aw, ou, ow; avon, owen
achadh	field	a, ach, agh, agha, aha,
ard	high, high place	ard
áth	ford	a, aha, ath , but also ach, agh, agha,
baile	town, homestead, settlement, district, townland	balli, bally
bán	white	ban, bane, baun, bawn
beag	little, small	beg, big
bealach	pass, way	bal, balla, ballagh
bealach ard	high road	ballard, bollard
béal	mouth, approach	bal, bel
béal atha	approach to the ford	bella, balla, balli, bally

bin, beanna	mountain, peak	ben, bin, pin
bearna, bearnas	gap, defile, pass	barn, barna
beith	birch	bey, beigh
betagh	serf, betagh	beta, betagh
bhaile	form of <i>baile</i> as second element	vally, ville, willow
bile	a tree (large or sacred)	ville, villy
bó	cow, ox	bo
bóithrin	diminutive of <i>bóthar</i>	bohreen, boreen
bóthar	road, cow path, avenue	boher, bor, batter, booter
breadan	salmon	
buaile (pl. buailte)	cow's pasture, milking place, summer pasture	boley, boola, booly
buí	yellow	boy, bwee, bue, bui
bun	bottom, lowest reach, mouth of a river	bon, bun
boireann	a rocky, stony place; a bare mountain	burren

cailleach	witch, hag	caillie
caiseal	stone fort, (lat. <i>castellum</i>)	cashel, castle, goshel
caisleán	castle	cashlaun
caol	narrow, a narrow place	keel, kil, kill
capall	horse	gappal, cappal
carn	cairn; heap of stones	carn, cairn
carr	carr, fen wood	carr, garr
carraig	rock	carrig, carrick, corrig
casan	pathway	casan, castle
cathair	stone fort (lat. <i>castra</i>)	caher, cahir
ceann, cinn	head	can, kan, ken, kin
ceapach	tillage area	cap, cappa, cappagh, gappa
ceathrú	quarter, portion	carhoo, carrow
cill	church, hermitage (lat. <i>cella</i>)	cel, kil, kill

cillín	diminutive of cill	killeen
cladach	flat, stony beach; shore	claddagh
claonadh	a slope	Clane
cloch	stone	clogh, clough
clochán	stepping stones, stone structure, beehive hut	cloghan, cloghane, cloghaun, Clifden
clochar	stone structure, stony place	clogher
clogher	stony place	clogher
cluain, pl. cluainte	meadow	clon, clone, cloonta, clinty
cluainín	diminutive of cluain	cloneen, clooneen
cnoc	hill, small mountain	knock, crock, cruck
caora	sheep	gearagh
coileach	cock	
coill, pl. coillte	wood, forest	kil, kill, kile, kyle, keelty, kilty, quilty, cultia
cois	beside	cos

coll	hazel	hole
corr	heron; also odd, eccentric	
crann	tree	
croacán	(field of) rushes	crockaun
cruach	reek, mountain; also rick of turf	croagh
cruachán	diminutive of cruach	crockaun
cúl	back, at the back of; a corner	cool, coole
currach	low-lying plain, marsh	curra, curragh, curry
da	two	da
daingean	stronghold	dangan, dingin, Dingle
dair, dara	oak	dare
dá	two	da, daw
dearg	red	derg
díseart	deserted place, hermitage (lat. <i>desertum</i>)	desart, disert, dysert, (also tristle, castle)

doire	oak grove	darry, derri, derry
doirín	diminutive of <i>doire</i>	derreen
domhnach (placenames often associated with Bishop Palladius)	The Lord (God); (church of God) = large church; (day of the Lord) = Sunday	dona, donagh, donough, dun
droichead	bridge	drehid, droghed, drohid, drought, driet, droit, tred
droim	ridge	drim, drom, drum
dubh	black, dark	doo, dou, dub, duff, duv
dúinín	diminutive of dún	dooneen, downing
dún	fort, fortress	doon, down, dun
eaglais	church (lat. <i>ecclesia</i>)	aglish, eglish
eanach	marshy (ground), swamp	ana, anagh, eanna
eas/easach	waterfall	as, assa
easpag	bishop	espie
eiscir	esker	asker, esker

fada	long	fad, fada
feannóg	hooded crow (scald crow, grey crow)	
fearann	land, ground	farran
fearnóg	alder	
feart	grave, trench	fert
feá	beech	
féar	grass	
fiach dubh	raven	
fiodh, pl. feadha	wood	fee, feigh, feth, few, fi, fid, fith
Fíonn	Finn (MacCool)	finn
gabhal	fork	golla, golly
gabha	smith	gow
gabhar	goat	gower
gall	Foreign, foreigner, hostage	gal, gall

garbh	rough, uneven	garvan
glas	green	glas, glass
gleann	glen, valley (glaciated valley)	glan, glen, glin, glyn, glynn
gleannán, gleanntán	diminutives of gleann	glennan, glennaun, glentane, glantaun
goirtín	diminutive of gort	gorteen, gortin, gurteen
gorm	blue	gorm
gort	arable fíeld, tillage field	gort, gurt
grian	sun	green
imleach	land bordering on a lake or marsh, boundary	emlagh, emly
inis, inse	island; river-bank, shore	inch, inish, inchy, ennis, nish
íochtar	lower, remote or northern part	eighter, ighter
iúr	yew	ure, vir
lacha	duck	
leaba	bed	labba

leac, pl. leaca	flat stone, flagstone	lack, leck, leek, lick; lacka
leacán	stony hill-slope	lackan, lacken
leath, leith	half, part, one side	la, lah, le
leitir	wet hillside	letter; lettera, lettery, latteragh,
linn	pool	lin
liosán, lisín	diminutive of líos	lisheen, lissan, lissane, lissaun
lios	enclosure, fort; the free space around a dwelling enclosed by a bank	lis, liss, lisha, lassa
loch	lake; sea inlet	lough, low
lochán	pond	lockan
lochán	diminutive of loch	loghan, loughane, loughaun
machaire	a plain	maghera, maghery
madra	dog	
mainistear	monastery (lat. monasterium)	monaster
mám	gorge	maam, maum

mara (gen. of muir)	sea	mara
mban (gen. of ban)	woman	mon
meall	honey	mel
mhacha	cattle field	mocky
móin, gen. móna	bog	moan, mon, mone, moon
monín	little bog	moneen
mor	big, great	more
múc	pig	muck
muileann	mill	mullen, mullin
muintear	family (lat. <i>monasterium</i>)	munter
mullach	uppermost part, crown	mullagh
nua	new	no, noo, ou; fau
oileán	island	illan, illaun
pobail, gen. phobail	people, community	fubbel

ráithín	diminutive of ráth	raheen, rahin
ráth	fort, enclosure	ra, ragh, rah, rath, raw, ray, roe
reilig	graveyard	reilig
rí	king, chieftain	ree, ri
ruadh	red	rue
saileach	willow	sall, sally
sceach	hawthorn	
sceillig	a rocky place	skellig
seagail	rye	
sean	old	shan
sionnach	fox	
sliabh	mountain	slieve, slew, lew, lieve
srutháin	stream	stream (?)
sraith an	street of, village of	stra(n)

suí, suidhe	chair, seat	see
teach, tigh; gen. tigh	house, monastery, church	sta, sti, ta, tagh, taught; tee, ti, ty
teampaill	church	temple
teampall	church (lat. <i>templum</i>)	tample, tempal, temple
tiobraid	a well	tibber, tibret, tipper, tubbert, tubbrid
tír	country, territory	tir, tyr
tobar	well, spring	tober, tubber
trá, traigh	strand, beach	tra, tragh, traw, tray
tuaim	tomb	tom, toom, tum, tuam
túar	milking enclosure; bleach green	toor, tour, tore
tulach	a small or low hill	tul, tullagh, tullig, tullow, tully
úachtar	upper, southern part	oughter, water, waughter
uaimh	cave, grave	nav

APPENDIX III – TIMELINE

Historical Event	Time	Archaeological Event /Feature
End of last Ice Age	10 000 BCE	Irish topography established much as today, though many shallow lakes; no forests, no bogs
First Mesolithic human settlers in Ireland (hunters/ fishermen/ gatherers)	From 7000 BCE	Small artefacts: tools, weapons, fish-hooks, ornaments; no permanent stone buildings; no changes in landscape.
Neolithic settlers in Ireland	From 4000 BCE	Forest clearing, first tillage and pasture farming
	From 3500 BCE	Great Megalithic tombs: court tombs, passage tombs; later, portal tombs, henge monuments
	3200 BCE	Newgrange passage tomb
Late Neolithic	2000 BCE	Extensive forest clearance, early field systems
Bronze Age (late phase overlapping with Iron Age)	2000 BCE – 200 BCE	Wedge tombs, henge monuments, standing stones, stone alignments, stone circles; fulachtaí fia; possibly crannogs, hillforts Spread of blanket bogs
	680 BCE	Royal site of Emain Macha (Navan Fort, Co. Armagh)
Beginning of Celtic immigration: Beginning of Iron Age	600 BCE (possibly later)	
Spread of La Tène culture in Europe	5th century BCE	
La Tène culture in Ireland	~ 200 BCE	Turoe stone, Co. Galway (La Tène art)
Iron Age Celts dominant culture in Ireland	3 rd century BCE - 5 th century CE	Crannogs, hill-forts, hilltop ceremonial sites

	148 BCE	Building of Corlea roadway (together)
	94 BCE	Great wooden building at Navan Fort, Co. Armagh
Trade between east / south-east Ireland and Roman Britain	1 st - 5 th century CE	
	3 rd century	First Ogham stones
	4 th / 5 th century	Origin of most Ogham stones
Bishop Palladius arrives in Ireland	431	
St Patrick arrives in Ireland	432	
St Patrick lights Easter fire on Hill of Slane	433	
Early Christian period	450 - 1142	
Early monasteries	6 th century	Foundation of major monastic houses: Bangor, Clonard, Clonfert, Clonmacnoise, Derry, Glendalough, Iona, Kildare
	6 th and 7 th century	Major phase of crannog building
	6 th - 10 th century	Origin of most ring-forts
'Golden Age' of Irish monastic culture	7 th and 8 th century	Illuminated manuscripts; Ardagh chalice and other important metalwork
	632	Horizontal watermill (Little Island, Co. Cork)
	~ 650	Book of Durrow
	650 - 750	Early high crosses
	~ 700	Deer Park Farms wicker houses, Glenarm, Co. Antrim
	~ 700	Tara Brooch
	8 th century and later	Monastic enclosures; beehive huts

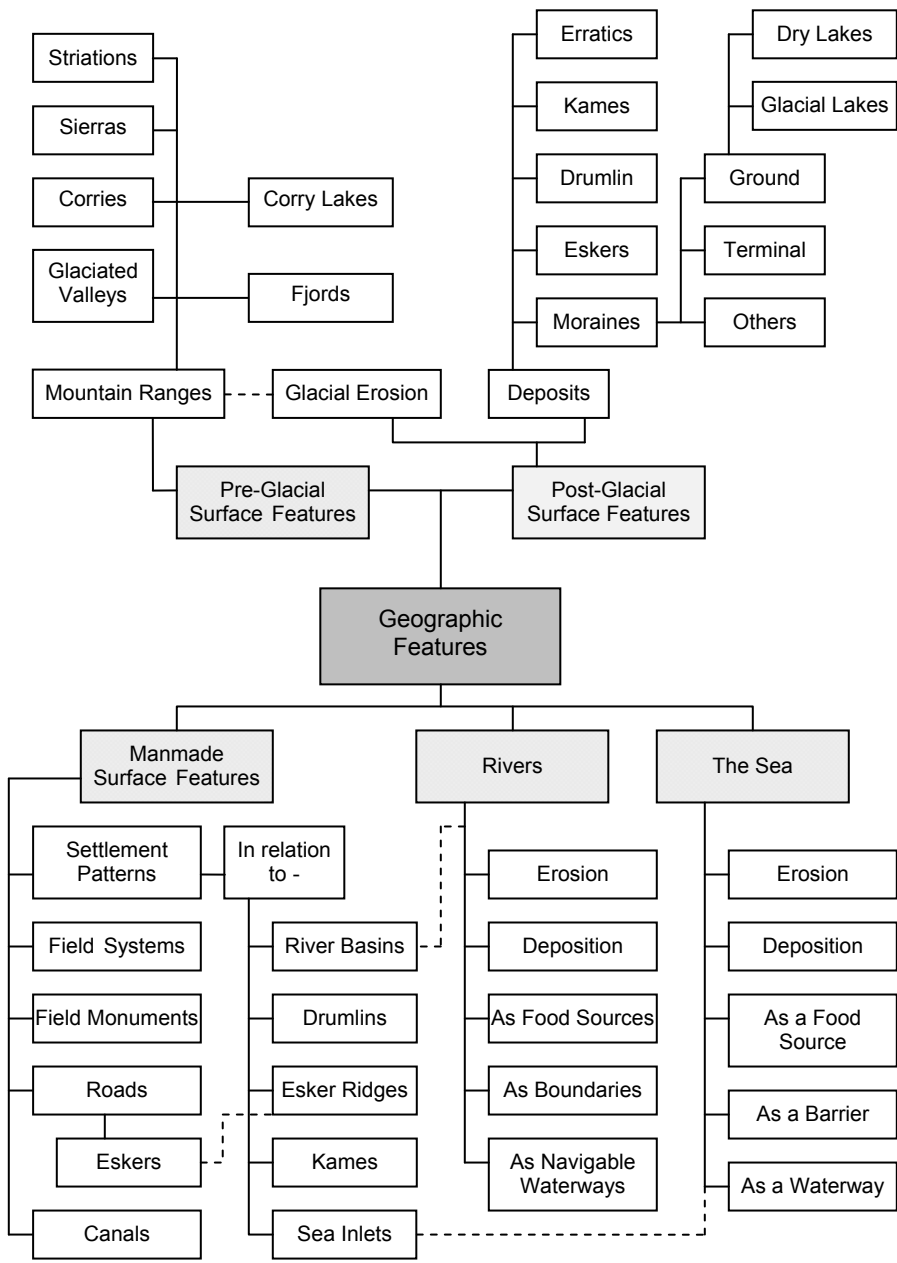
	789	First reference to stone church in Ireland (Armagh)
First Viking raids on Ireland	795	
	~ 800	Book of Kells
	9 th and 10 th century	Early round towers
	841/42	Permanent Norse <i>longphort</i> at Annagassen, Co. Louth; also in Dublin
	10 th century	Muiredach's Cross, Monasterboice
Battle of Clontarf	1014	
	1028	Foundation of Christ Church cathedral
	1090 - 1130	Flowering of Irish Romanesque metalwork
	~1100	Wood Quay section of Dublin City (stone) wall built
	12 th century	Cross of Cong; stone churches common
	12 th - 13 th century	Churches featuring sandstone mouldings and west doorway
First synod if Cashel; Cashel granted to the Church	1103	
	~1210	St Mary's New Ross
	1124	Round tower at Clonmacnoise finished
	1127 - 1134	Building of Cormac's chapel at Cashel
	1127 - 1226	Flowering of Irish Romanesque architecture and sculpture
Effective end of early Christian monasticism	1142	Foundation of first Irish Cistercian abbey at Mellifont
Synod of Clane	1162	
Norman invasion	1169 - 1171	
Henry II grants charter to Dublin	1171/72; 1174	

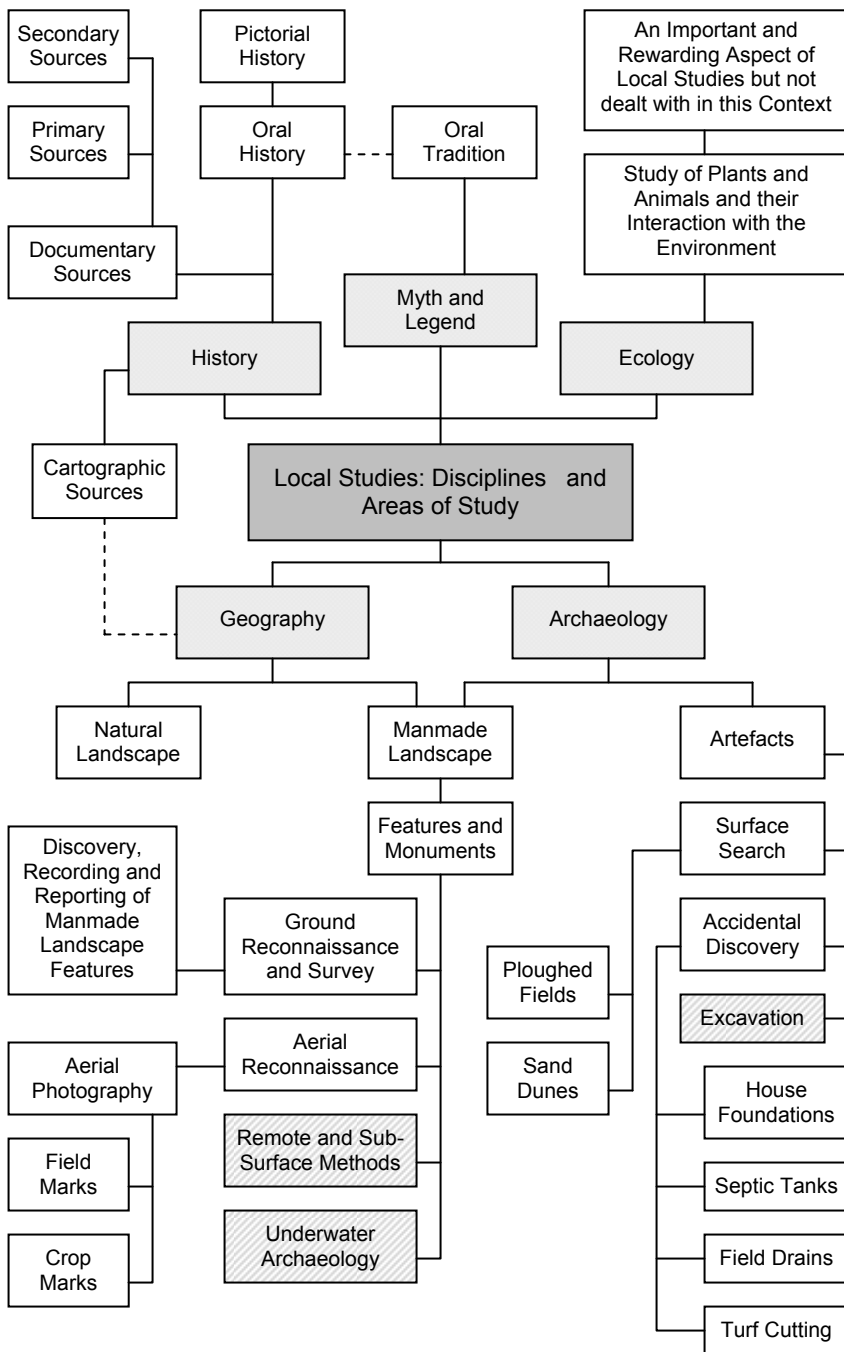
John de Courcy invades Ulster	From 1177	Downpatrick castle built by de Courcy
	1180 - 1190	Carrigfergus castle built by de Courcy
	Late 12 th century	Increasing use of oak instead of ash in construction of heavier timber houses
	Early 13 th century	Use of mortice-and-tenon technique in house construction;
Dublin castle centre of royal administration	1204	
	1207	First national coinage with harp symbol
	~ 1210	Lavabo at Mellifont built
	1216	Ballintubber Abbey founded
	~1220 - 1254	St Patrick's cathedral, Dublin, built (lady chapel finished 1270)
First Irish Dominican foundations at Dublin and Drogheda	1224	
	~ 1224 - 1230	First Irish Franciscan foundations at Youghal and Cork
	1237 - 38	Encastellation of Connacht by Anglo-Irish
Mint opened at Dublin	1251	
Foundation of Dominican house at Kilmallock, Co. Limerick	1291	Choir of church built that year
Battle of Callan near Kenmare	1261	Numerous castles destroyed
	1263 - 64	Foundation of Franciscan Friary at Armagh
	Late 13 th century	Use of stone in building town houses
	1302	Foundation of Franciscan Friary at Castledermot, Co. Kildare
	14 th century	The <i>Dark Age</i> of Irish history: dearth of historical sources and archaeological remains

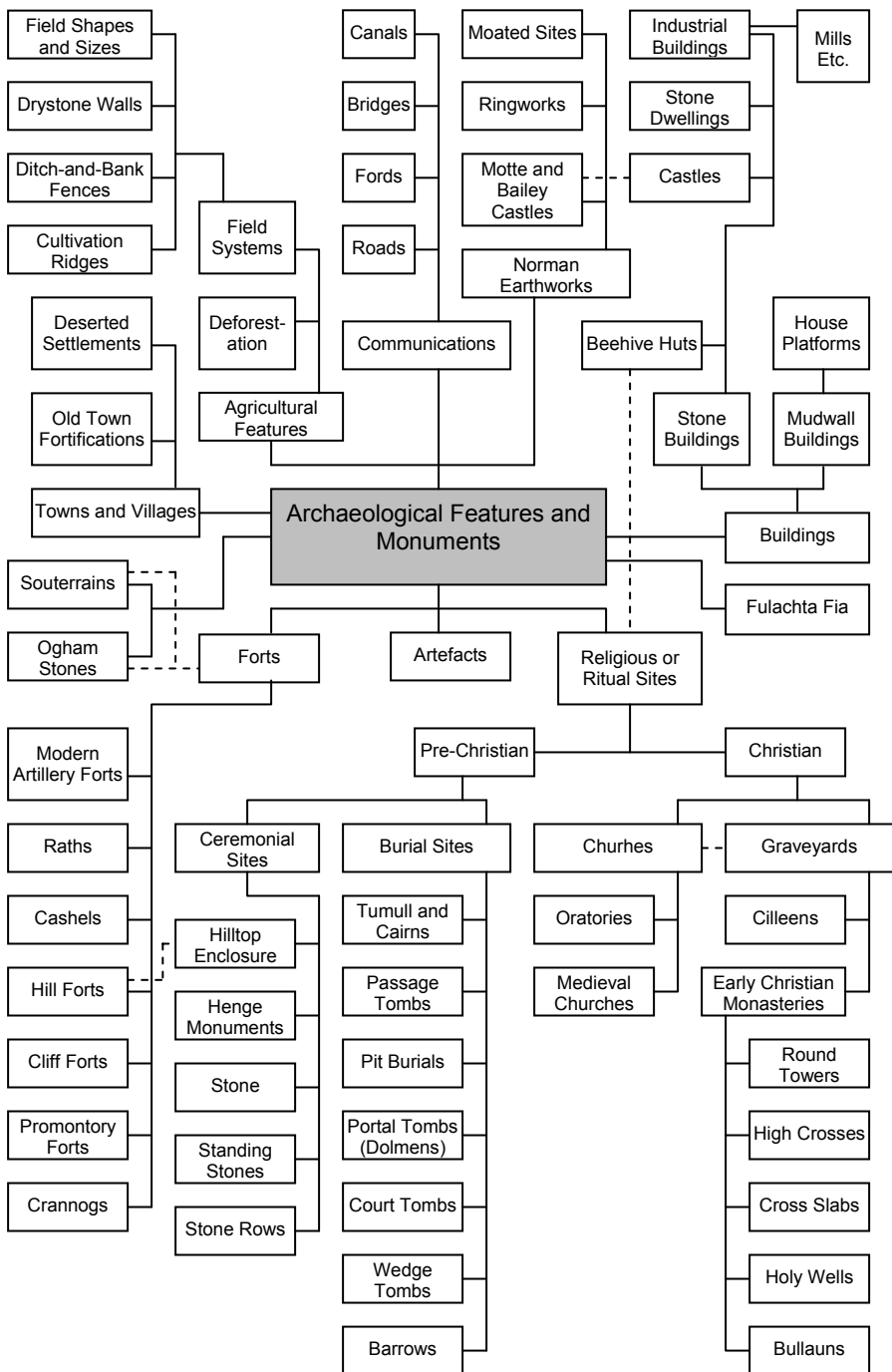
Bruce wars	1315 - 18	
Great Famine in western Europe and Ireland	1315 - 17	
Black Death in Ireland	1348 - 50	
	15 th century	Building of most parish churches; use of limestone mouldings; opposing north and south doorways
	1429	£10 grant for building tower-houses in Pale area
	1446	First use of term Pale
	1488	First use of artillery in Ireland by Gearóid Mór Fitzgerald
Poyning's Law enacted	1494	Pale fortifications specified
Revolt of 'Silken Thomas'	1534	Royal cannon at the time in the custody of the Lord Deputy (the Earl of Kildare), while powder and shot were kept in Dublin castle
Dissolution of monasteries within the Pale area	From 1539	Monasteries converted to castles and fortified
Plantation of Kings County and Queens County (Laois and Offaly)	1550 - 57	Fort Governor → Philipstown → Daingan; Fort Protector → Maryborough → Portlaoise
	1556	Armagh cathedral burnt
Scheme for Munster plantation	1585	
Trinity College, Dublin, incorporated	1592	
	1594	Building of Rothe House, Kilkenny; important stone town house
Derry fortified	~ 1600	
40 new boroughs incorporated, starting with Dungannon	1612-13	

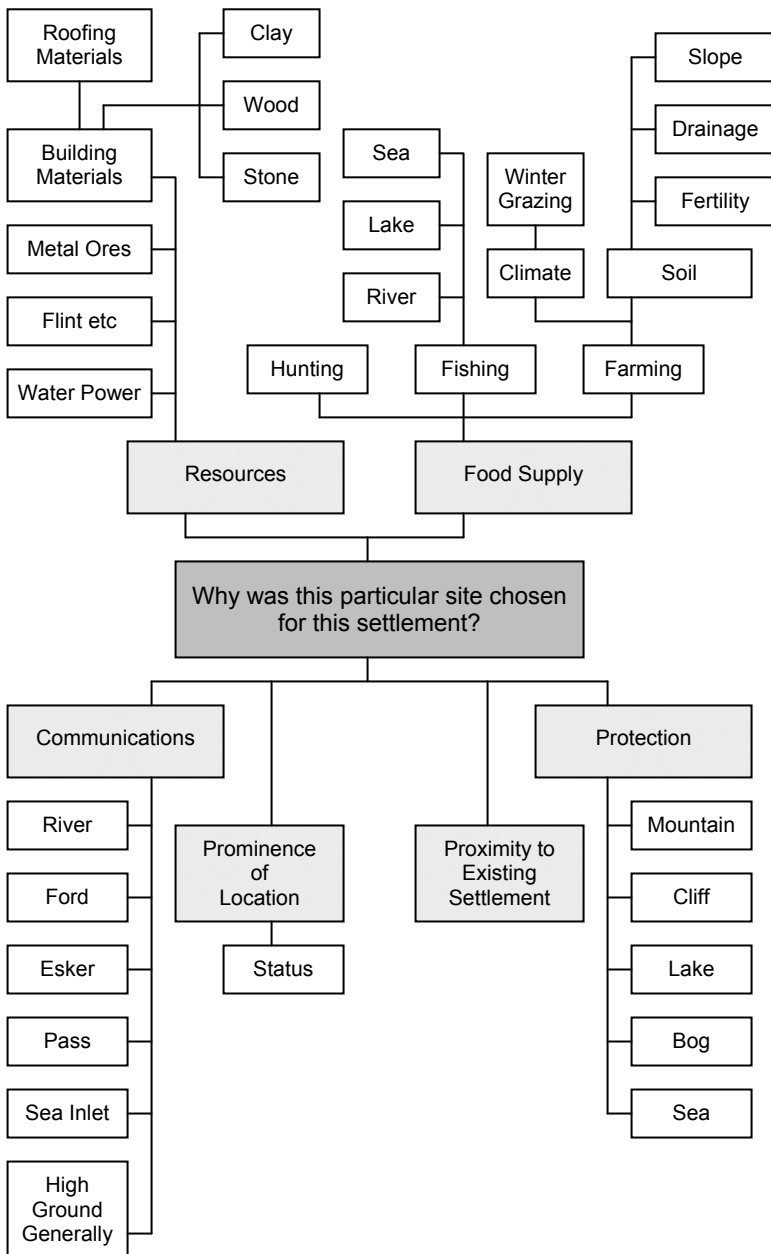
Authorisation of plantations in parts of Leitrim, Kings County, Queens County, Westmeath	1621	
	From ~ 1630	Fortified houses built instead of tower-houses
Compilation of Annals of the Four Masters	~ 1632	
	From ~ 1650	Use of brick in building
First and second siege of Limerick	1690/91	
Increased road travel in wheeled vehicles	18 th century	Dramatic improvements in road network; beginning of canal systems
	1729	Foundation stone laid of new parliament building at College Green (Bank of Ireland)
	From 1752	Building of West Front of Trinity College
	1757	Rotunda Hospital opened
	1764	Rotunda concert hall built
	1781	Foundation of Custom House (James Gandon)
	1786	Foundation of Four Courts (James Gandon)
	1793	St Patrick's College, Carlow opened (first Catholic college in Ireland)
	1795	Royal College of St Patrick, Maynooth, opened
Threat of Napoleonic invasion	1803	Martello towers built in Ireland
	1834	Opening of Dublin - Kingstown railway
	From ~1850	Use of mass concrete in fortifications

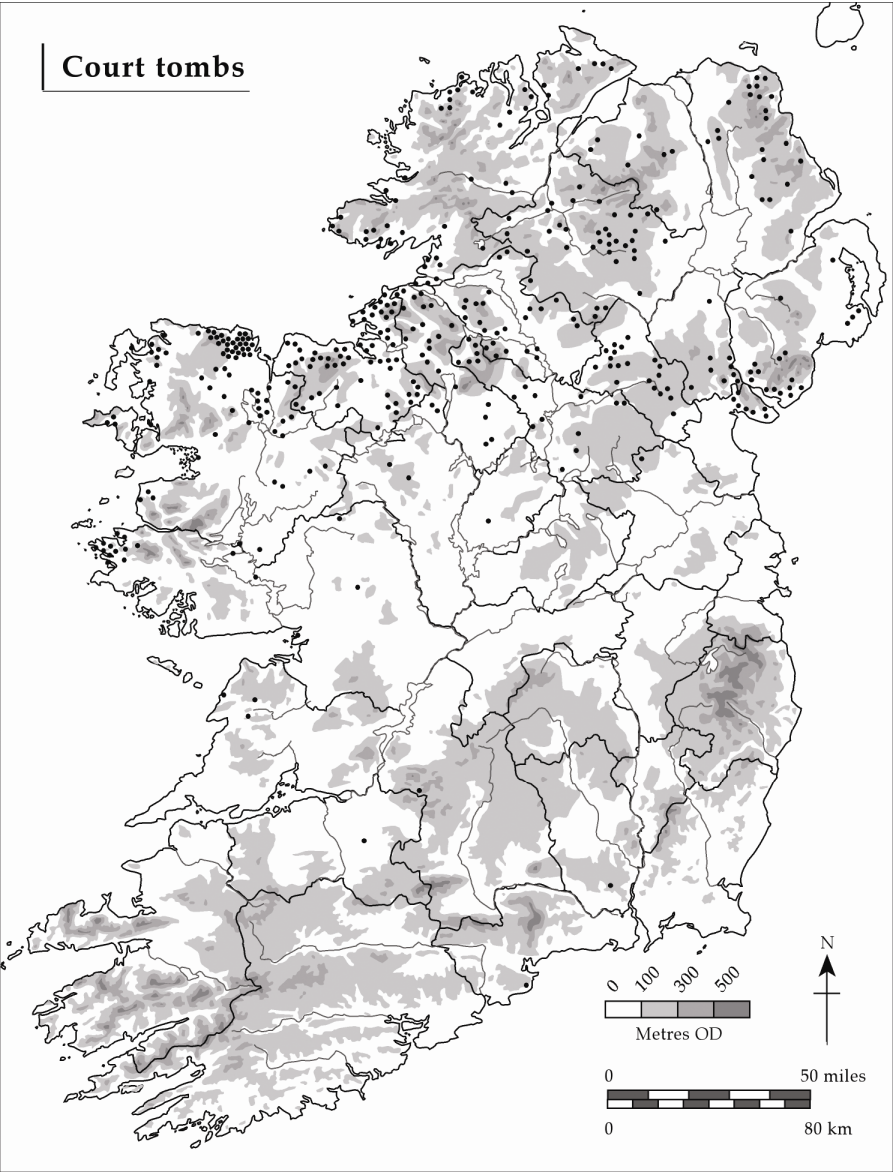
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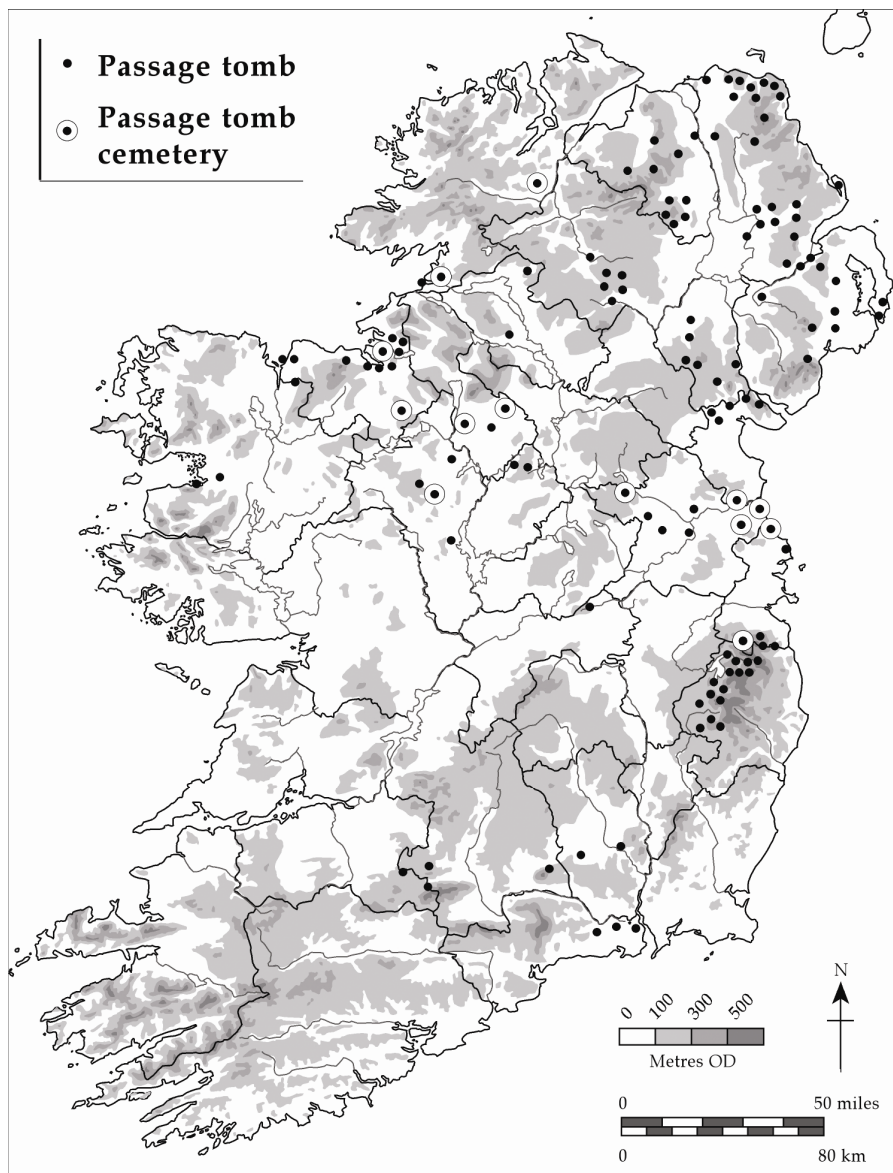






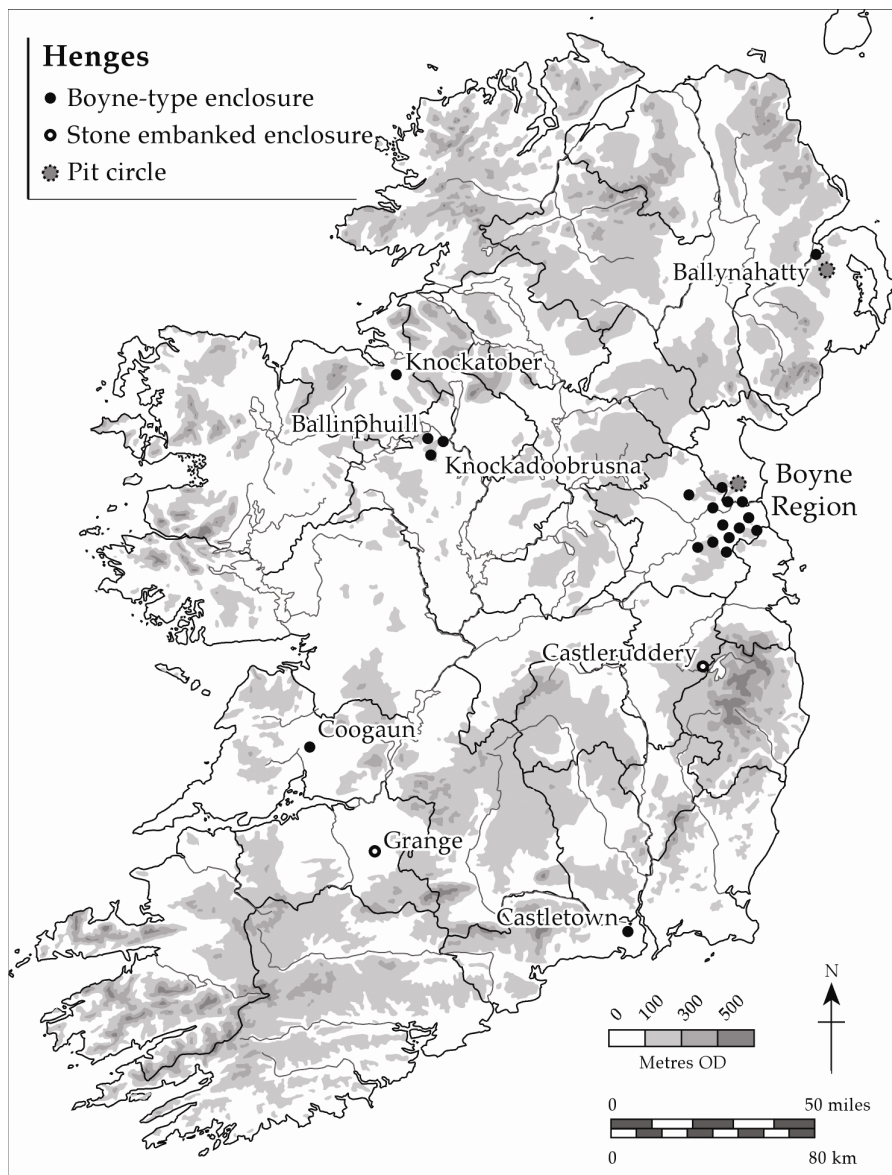




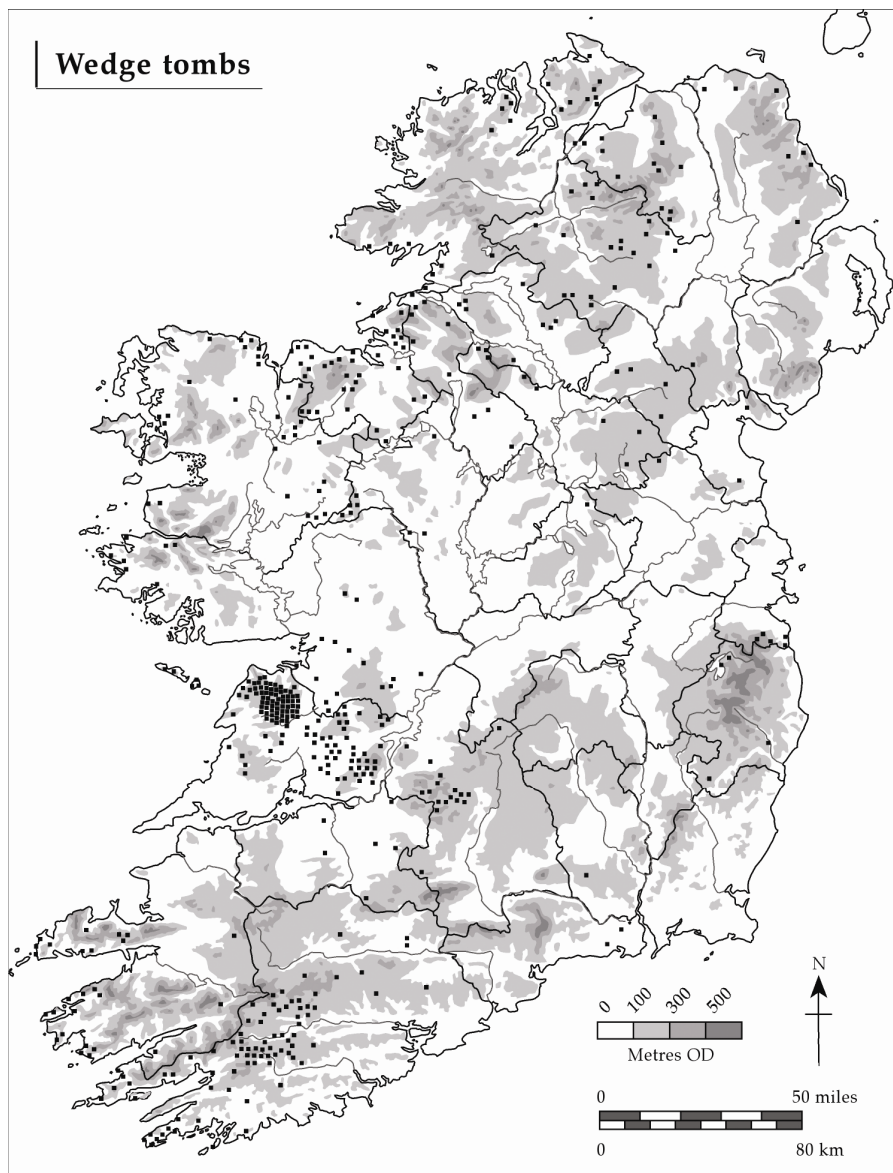


Henges

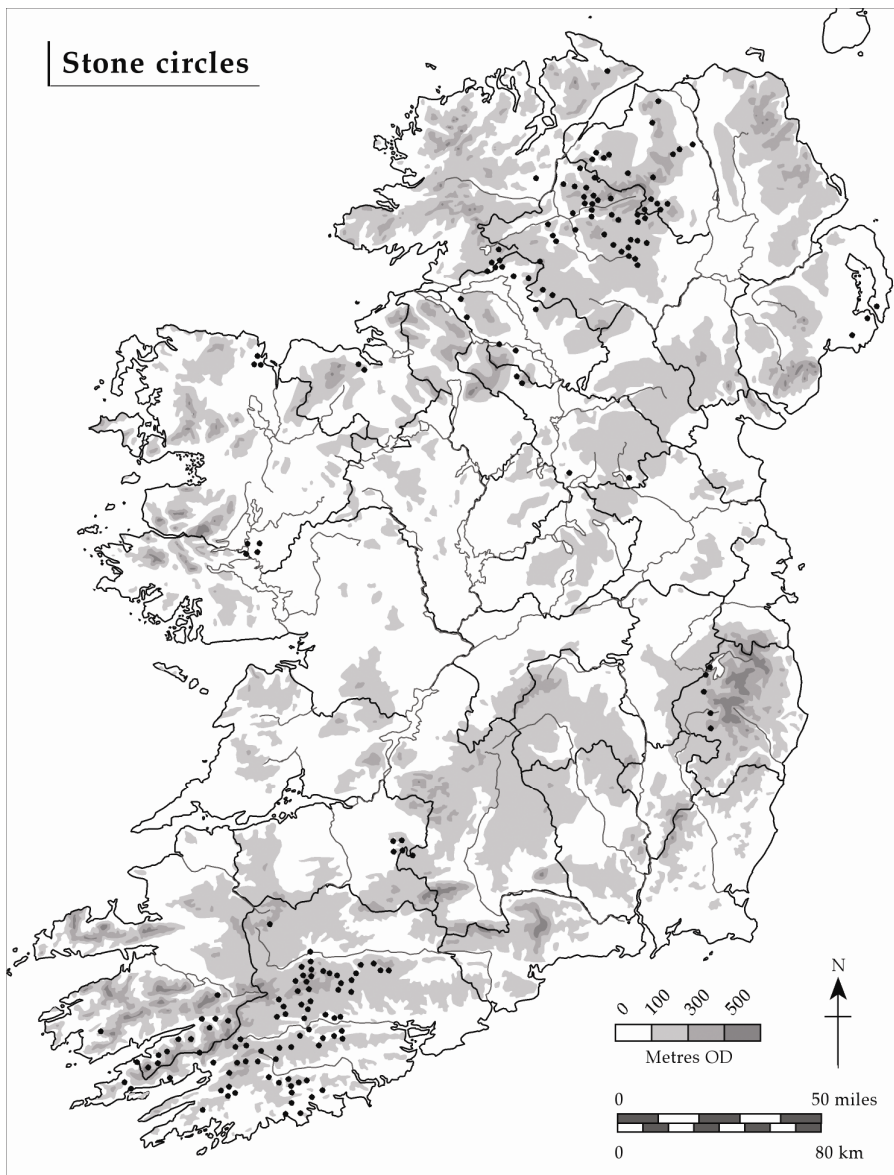
- Boyne-type enclosure
- Stone embanked enclosure
- ⊗ Pit circle



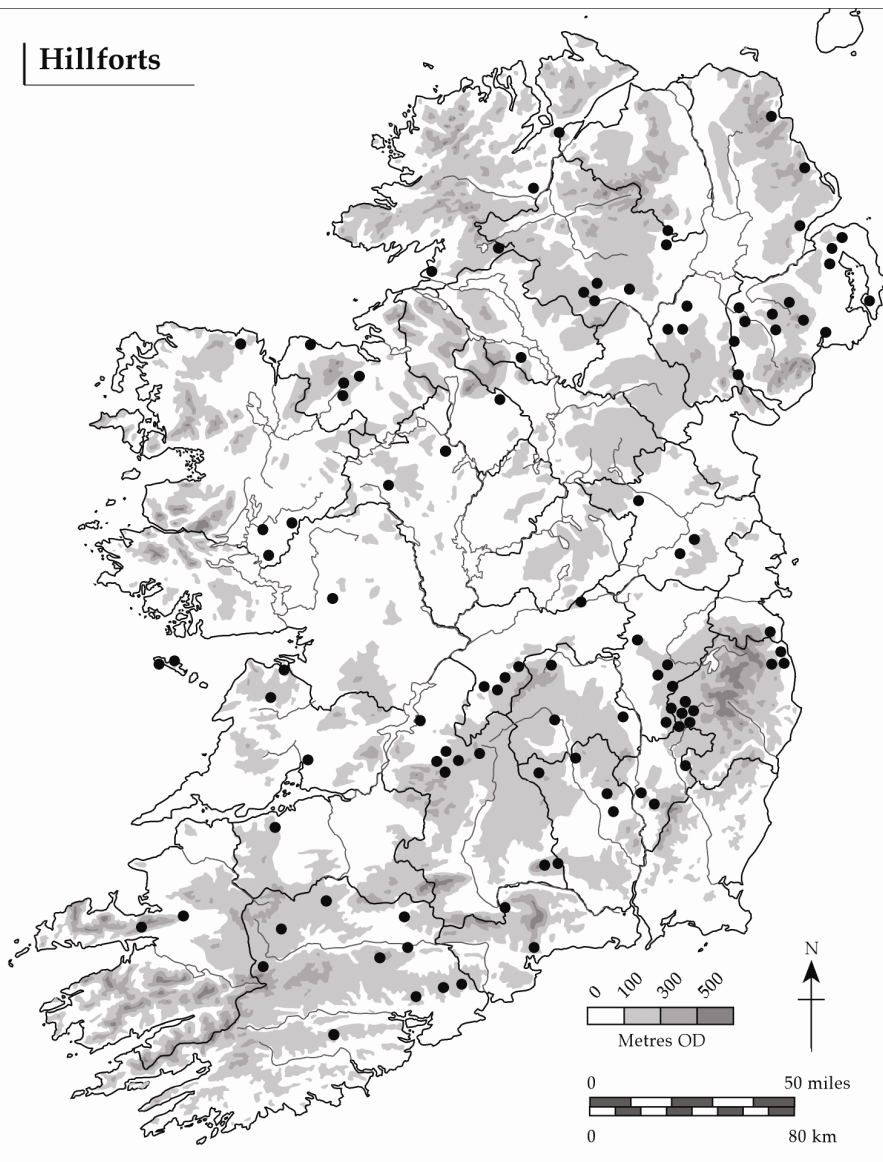
Wedge tombs



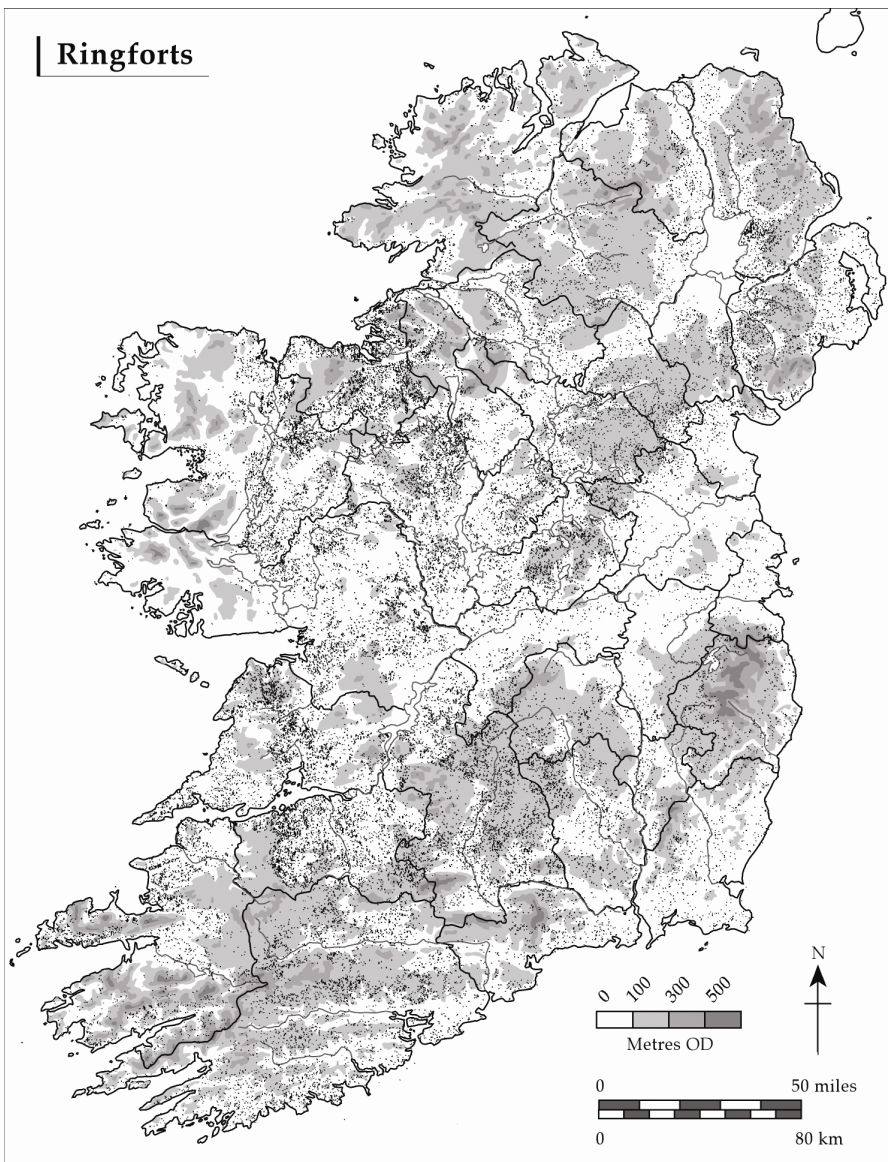
Stone circles



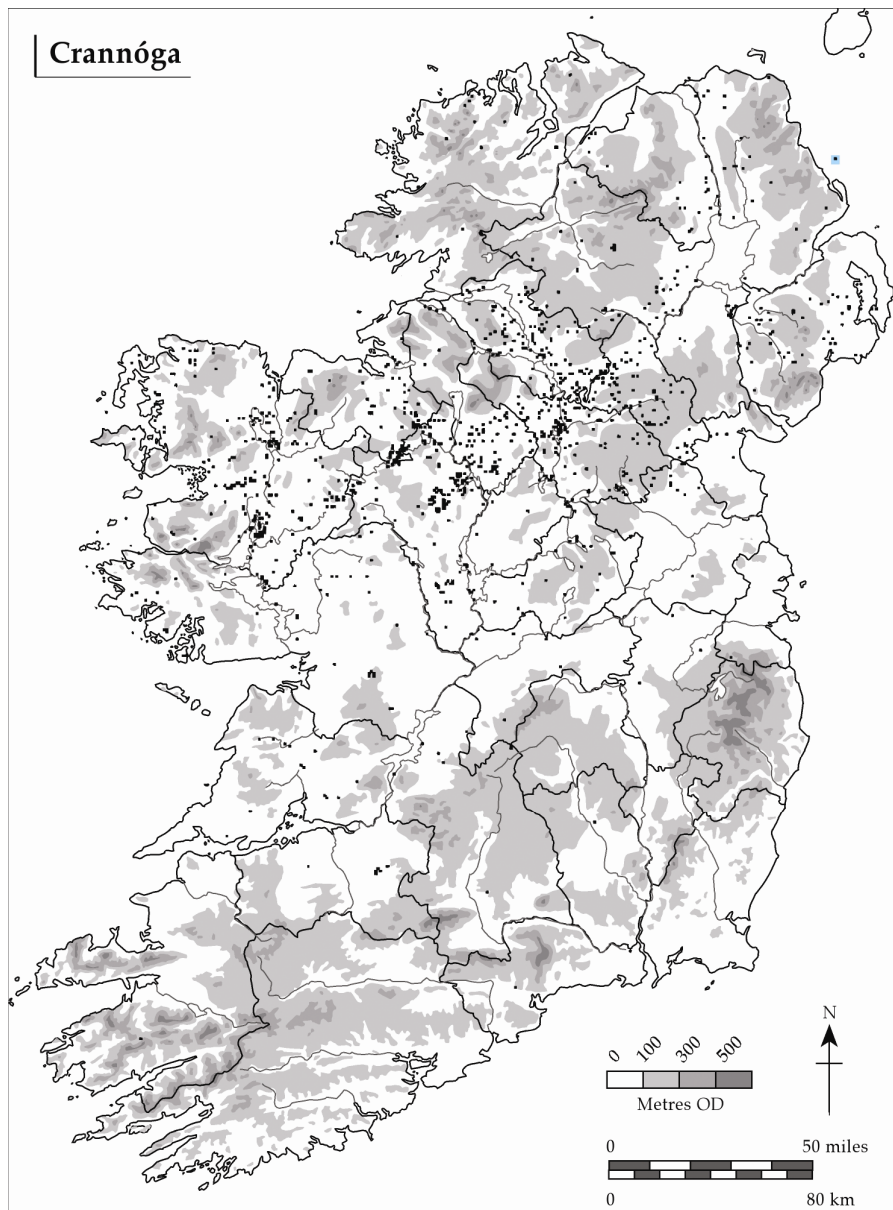
Hillforts



Ringforts

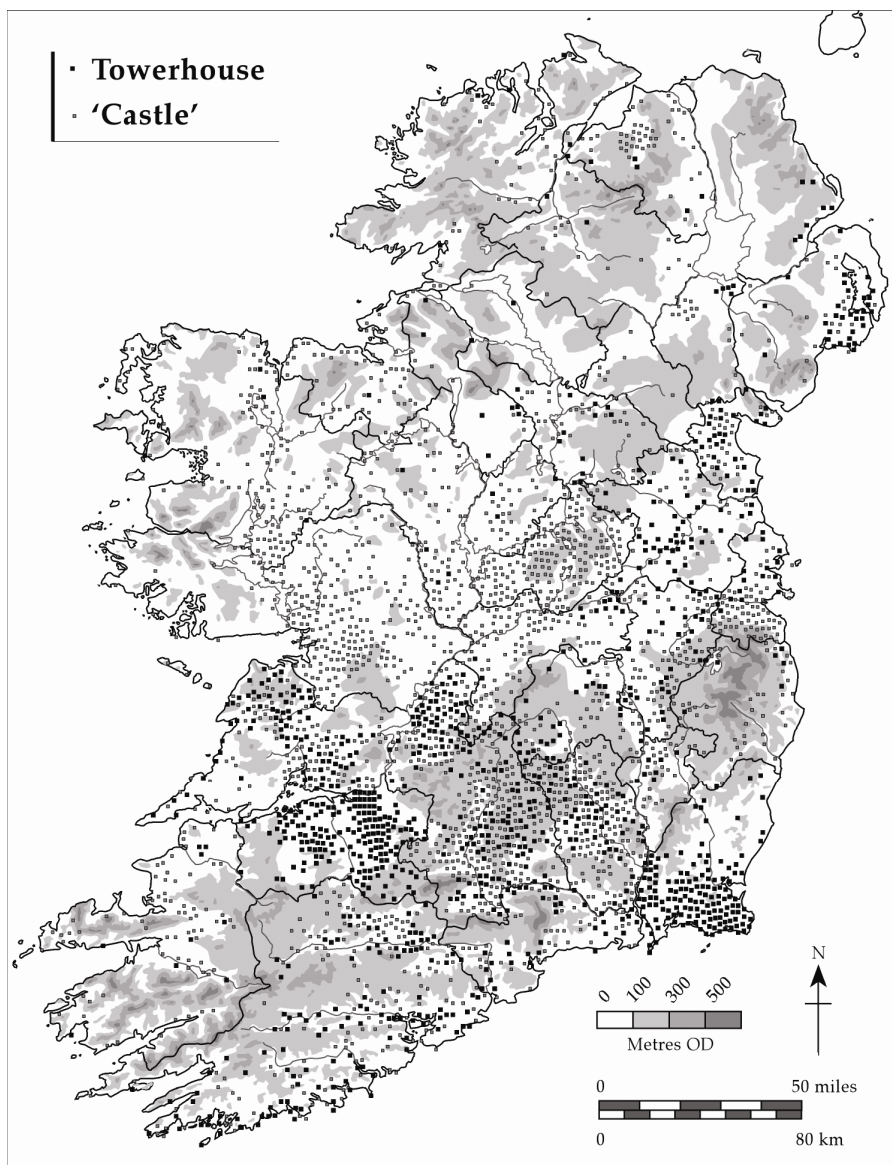


Crannóga



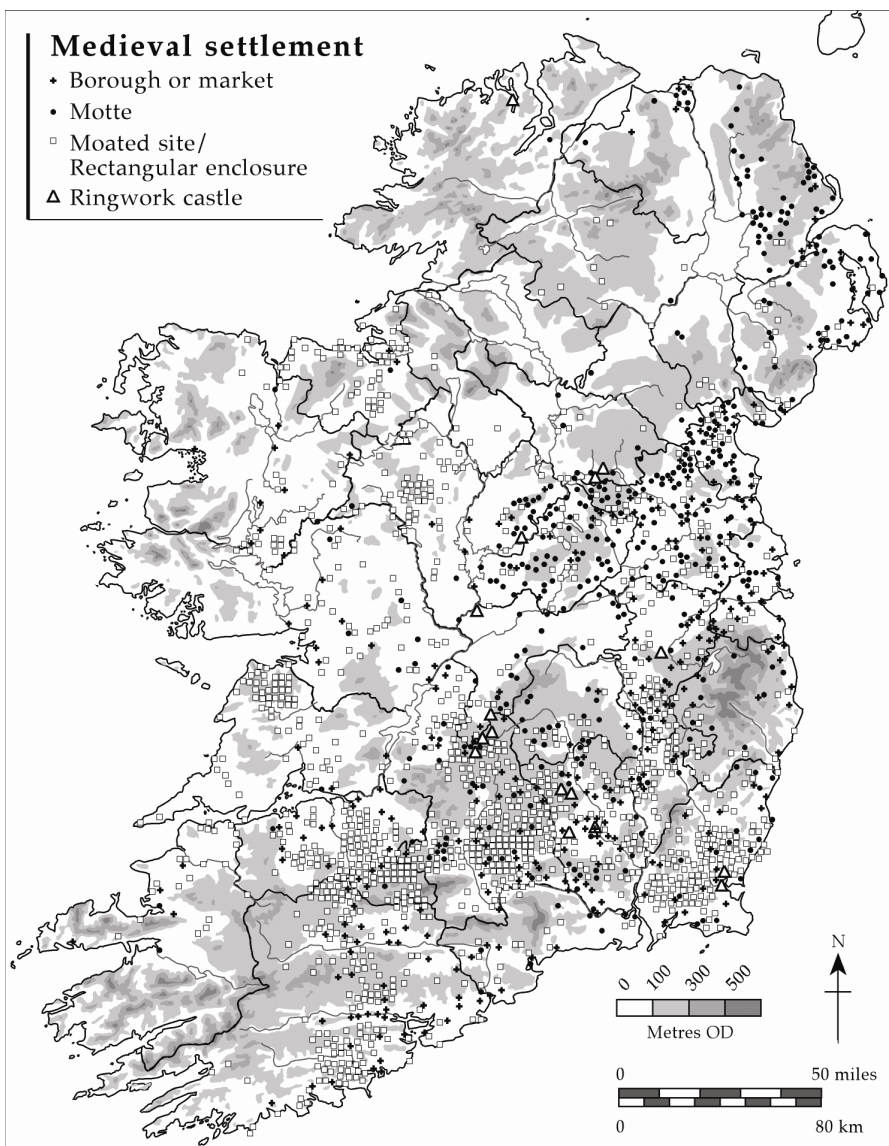
Souterrains





Medieval settlement

- Borough or market
- Motte
- ◻ Moated site/
Rectangular enclosure
- Δ Ringwork castle



APPENDIX VI – KEY

Field monuments									
Megalthic stone monument – large stones, exposed	Above ground								
	Earthwork or non-megalithic stone structure				Building				
	Enclosure	Linear structure	Round drystone hut	Medieval	Modern	Box shaped	Elongated (sometimes branched)	Cover stone resting on three (sometimes more) uprights	Cover stone resting on uprights – recognisable wedge shape
Large cover stone resting on small stones	Tumulus	Round / oval	Large (>~60m diameter)	Hilltop location	Non-hilltop location	Small (<~60m diameter)	Bank and internal ditch or ditch/bank only	< 6m high	> 6m high
	Rectangular	Polygonal	Large linear earthwork	Parallel banks	Field boundary	Beehive hut?	Norman castle?	Tower-house?	Early Christian Round tower?
	Star-shaped military fort?	Moated site?	Ringfort?	Large (royal?) ringfort?	Henge monument?	Hilltop ceremonial site?	Hillfort?	Passage Tomb?	Motte? (always earth)
	Ringfort?	Ring barrow?	Bank and internal ditch or ditch/bank only	Stone wall or bank with external ditch	Bank and internal ditch or ditch/bank only	Stone wall or bank with external ditch	Bank and internal ditch	Bank and internal ditch	Bank and internal ditch
	Boulder Burial?	Court Tomb?	Wedge Tomb?	Portal Tomb?	Passage Tomb?	Motte? (always earth)	Hilltop ceremonial site?	Hillfort?	Henge monument?
Below ground	Building	Earthwork or non-megalithic stone structure	Linear structure	Round drystone hut	Medieval	Modern	Box shaped	Elongated (sometimes branched)	Souterrain
	Medieval	Norman castle?	Tower-house?	Early Christian Round tower?	Church?	Abbey / Medieval monastery?	Cottage or vernacular farm house?	Cist grave (may also be under tumulus or above ground)	Souterrain
	Modern	Box shaped	Elongated (sometimes branched)	Souterrain	Cist grave (may also be under tumulus or above ground)	Souterrain	Cist grave (may also be under tumulus or above ground)	Souterrain	Souterrain
	Below ground	Earthwork or non-megalithic stone structure	Linear structure	Round drystone hut	Medieval	Modern	Box shaped	Elongated (sometimes branched)	Souterrain
	Medieval	Norman castle?	Tower-house?	Early Christian Round tower?	Church?	Abbey / Medieval monastery?	Cottage or vernacular farm house?	Cist grave (may also be under tumulus or above ground)	Souterrain

FURTHER READING

Aalen, F.H.A., Whelan, Kevin, and Stout, Mathew, eds: *Atlas of the Irish rural landscape*. Cork, 1997.

Barry, Terry B.: *The archaeology of Medieval Ireland*. London and New York, 1987.

Brennan, J.H.: *A guide to megalithic Ireland*. London and San Francisco, 1994.

Brindley, Anna: *Irish Prehistory, an introduction*. Dublin, 1994.

Byrne, Francis John,: *Irish kings and high kings*. London, 1973.

Condit, Tom,: *Ireland's archaeology from the air*. Dublin, 1997.

De Paor, Liam: *Archaeology, an illustrated introduction*. London, 1967.

Flanagan, Laurence: *A dictionary of Irish archaeology*. Dublin, 1992.

Geissel, Hermann: *A road on the long ridge: in search of the ancient highway on the Esker Riada*. Newbridge, 2006.

Halpin, Andy and Newman, Conor: *Ireland: An Oxford archaeological guide to sites from earliest times to AD 1600*. Oxford 2006.

Harbison, Peter,: *Guide to the National Monuments in the Republic of Ireland*, Dublin, several editions 1970 to 1992.

Kerrigan, Paul M.: *Castles and fortifications in Ireland, 1485-1945*, London, 1995.

McNally, Kenneth: *Standing stones and other monuments of early Ireland*. Belfast, 1988.

Mitchell, Frank and Ryan, Michael: *Reading the Irish landscape*, Dublin 1997.

Moody, T.W., and Martin, F.X. eds: *The course of Irish history*. Cork and Dublin, several editions to 1999.

O'Brien, Jaqueline and Harbison, Peter: *Ancient Ireland from Prehistory to the Middle Ages*. London, 1996

Ó Ríordáin, Seán P.: *Antiquities of the Irish Countryside*. Several editions; fifth edition revised by Ruaidhrí de Valera. London and New York, 1942 to 1979.

O'Keefe, Tadhg, 2000: *Medieval Ireland, an archaeology*. Stroud, 2000; 2001.

O'Keefe, Tadhg: *Romanesque Ireland, architecture and ideology in the twelfth century*. Dublin, 2003.

Raftery, Barry: *Pagan Celtic Ireland: the enigma of the Irish Iron Age*. London, 1994.

Richardson, Hilary and Scarry, John: *An introduction to Irish High Crosses*. Cork, 1990.

Salter, Mike,: *Castles and strong houses of Ireland*, Malvern, 1993.

Stout, Mathew: *The Irish ringfort*, Dublin, 1997.

Sweetman, P. David: *The medieval castles of Ireland*, Cork, 1999.

Waddell, John: *The Bronze Age burials of Ireland*, Galway, 1990.

Waddell, John: *The prehistoric archaeology of Ireland*. Galway, 1998 and Bray, 2000, reprinted 2005.

See also Hermann Geissel's web site, www.crsbooks.net, for information about the author, his previous publications and current projects.

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The book in hand is the indispensable companion for the local enthusiast engaged in practical fieldwork, whether for his/her own enjoyment or with a view of adding to the knowledge and understanding of the archaeological landscape and an awareness of local heritage. Step by step attention is drawn to characteristics of field monuments whose details might easily be overlooked, while at the same time some basic background information is given about the subjects under investigation. A comprehensive array of monuments is covered, from abbeys to wedge-tombs, from cultivation ridges to forgotten roadways.

A glossary of archaeological terms, a guide to Irish placenames, a timeline, overviews of disciplines of local studies, types of archaeological monuments and more provide the broader perspective. Distribution diagrams of selected monuments and a simple key for the identification of field monuments are also included.

Illustrated with 150 colour photographs, this practical guide will also – on a rainy day – provide information and diversion as a delightful coffee table browser.



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