

Assessment

Barnacullia

Dun Laoghaire-Rathdown

Dublin Institute of Technology

Spring 2006

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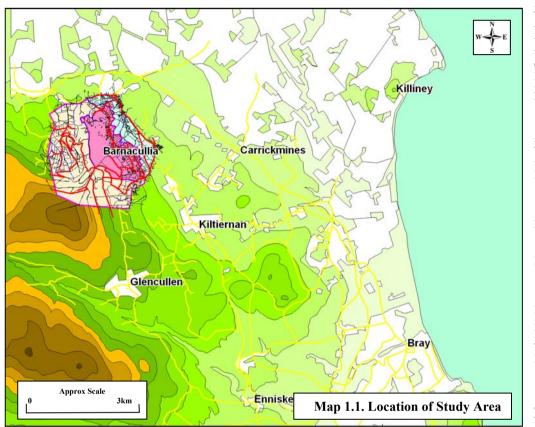
Historic Landscape Character Assessment

Barnacullia

Part 1 Introduction

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Introduction

This Historic Landscape Character Assessment of the Barnacullia area is prepared by members of the Dublin Institute of Technology, on behalf of the Heritage Officer, Dún Laoghaire-Rathdown County Council. This project is an action of the Dún Laoghaire-Rathdown Heritage Plan 2004-2008 and has been produced with support from the Heritage Council.

Assessment Team

The members of the assessment team are drawn from three main areas of discipline and include:

- Dr Ken Boyle (lecturer in environmental management, specialist in forestry management, wildlife management, and soil ecology)
- Dr Pat Dargan (architect and planner by profession with a special interest in heritage and sustainability)
- Dr Kevin Griffin (geographer who specialises in tourism, settlement morphology, heritage and sustainability)

Dublin Institute of Technology Sackville Place Dublin 1 Tel: (01) 402 7575 E-Mail: pat.dargan@dit.ie

Context

The assessment is prepared to provide an historic landscape character context of the proposed Barnacullia Local Area Plan, taking cognizance of the Landscape Character Areas outlined in the Dún Laoghaire-Rathdown County Council Development Plan 2004-2010 (See Appendix A).

This work is undertaken according to Action 1.2.5 of the Dún Laoghaire-Rathdown Heritage Plan which calls for the carrying out of Historical Landscape Character Assessments to help inform the preparation of Local Area Plans and action 2.1.1 which promotes the inclusion of heritage issues in appropriate plans.

Historic Landscape Character Assessment

This Historic Landscape Character Assessment is a method by which a detailed holistic study of the historical development and environmental significance of an area can be undertaken. The technique presents an overview of the physical, natural, human, and cultural heritage of an area with specific reference to the interaction between the various elements.

The significant feature of the Historic Landscape Character Assessment process is that it offers a dynamic perspective of the history and development of the total landscape, thereby contributing to the promotion of sustainable development within the study area.

Scope

The assessment covers the Geographical, Socioeconomic, Natural, and Built Environments of the study area.

Resources

Material for the assessment is drawn from the professional experience of the team members, publications, maps, and consultations with relevant professionals.

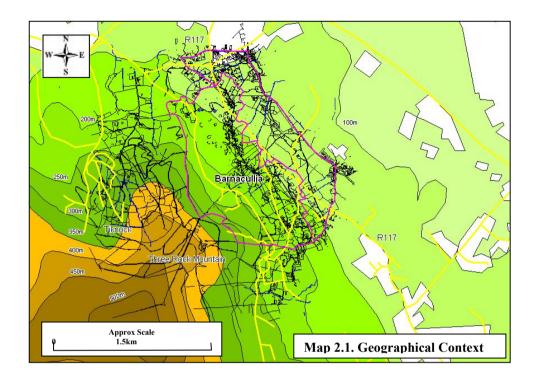
Presentation

The assessment is presented in a printed and bound A3 document and in electronic disc format.

Historic Landscape Character Assessment

Barnacullia

Part 2 Geographical Context



Context

Barnacullia is a fragmented study area, located on the north eastern slopes of Three Rock Mountain. The overall lineament of the site is a northwest southeast aligned roadway. The altitude of the study area ranges from 120 to 160 meters above sea level from north to south and 250 to 130 meters from west to east. The altitude of the site and the general aspect of the landscape play key roles in the character of this settlement.

To the north and east the ground levels out to the lowland landscape of Dublin - extending right down to Dublin Bay.

To the south and west the landscape is dominated by Tiknock and Three Rock Mountain

The steep slopes in this particular area are a key element in the landscape identity of the study area.

Historically this was frontier-land between the settled land of 'the Pale' to the north, and the wild Gaelic mountain lands to the south.

Barnacullia is located on the southern fringes of the Dublin conurbation, on a minor north-south route, which runs to the west and parallel with the R117 linking urban areas such as Sandyford to the north with Enniskerry to the south.

To the east the landscape opens onto coastal plains, which level out to the low-lying land around the town of Bray.

Study Area

The study area for this Historic Landscape Character Assessment is roughly based on the Landscape Character Area identified in the Dún Laothaire-Rathdown Countv Development Plan 2004-2010. (See Map 2.3. and Appendix A for Landscape Heritage and Amenities description). This is closely related to the Proposed Barnacullia Local Area Plan.

For clarity therefore, this study is viewed in three ways (See Map 2.1):

• The emphasis in this study is on the main study area (Central area in Map 2.1.) which contains the settlement of Barnacullia:

• To the east and west of the core study area are 'buffer' zones. To the east, this differentiates between Barnacullia, and the intensive development along the east side of the R117. to the west the 'buffer' area contains open mountain, woodland, and some dispersed settlement:

- The broader landscape surrounding, but influencing the study area, ranging from the 'Green Structure' of the southern portion of Dun Laoghaire-Rathdown, (See Map 2.2.) to the built-up landscape of Dundrum and Sandyford to the north.

Other than a single public house (the

Blue Light), the organically dispersed

settlement in the vicinity of the

Barnacullia townland contains no public

services or facilities. However, the

Barnacullia area possesses an identity

which is strongly defended by the local

population. The area contains a variety of one-off houses ranging from the

The area is at risk from un-planned and

un-sympathetic change, and thus is in immediate need of landscape evaluation.

upland rural townlands located in the

core area encompasses approximately 2.5 square kilometres of

nineteenth century to the present day.

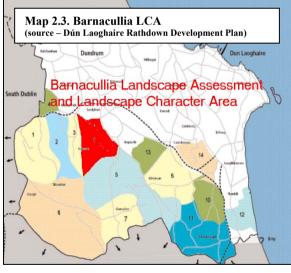
The

Dublin Mountains.

Map 2.2. Green Structure (source - Dún Laoghaire Rathdown Development Plan) Dundrun South Dubli Barnacullia Study area in context of Dun Laoghaire-Rathdown Green Structure

> It is envisaged that this report will assist in the future planning of this area by highlighting the characteristic features of the study area.

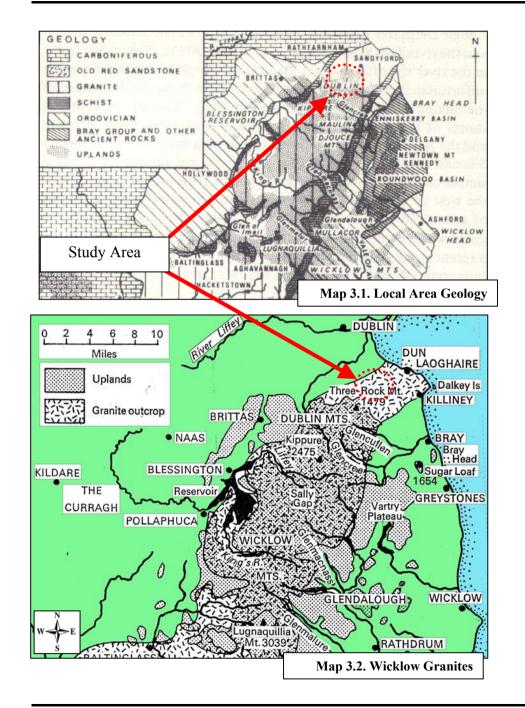
> The hillside location of the site is intrinsically linked to its historical origins which are closely linked to the development of granite quarries on the side of the mountain.



Historic Landscape Character Assessment

Barnacullia

Part 3 Topography



Geology

The geology of this region is dominated by the great plutonic mass of the Leinster granite. The Caledonian granite of the Leinster batholith, forms a backbone to this region of Ireland. To the west and south, this northern portion of the Leinster chain, forms a peat-mantled array of gently domed mountains and uplands. characteristic of this geology. The rolling landscape of the broad domed uplands contrasts in form with the more sharply peaked hills and incised valleys developed on the surrounding schists. As with many locations throughout the Dublin and Wicklow mountains, Barnacullia was an important source of granite for the buildings of nearby Dublin, with many traces of quarrying in evidence on the landscape (See Map 3.3.).

To the west of Barnacullia the landscape is dominated by the bulk of Three Rock mountain which gives panoramic views of Dublin Bay to the north and the Scalp to the south-east.

Three Rock gets its name from the massive granite rocks at its summit. It was not covered by ice during the last incursion of glaciers but the exposed granite rocks were severely weathered by rain and frost to leave the prominent masses of solid rock known as 'tors' that are visible from miles away.

The main north-south routeway which lies to the east, linking Dublin and Enniskerry (R117), travels via the natural ravine known as the 'scalp' which is an excellent example of an impressive glacial drainage channel. (This steep-sided cutting lies directly east of this study area and north of Enniskerry– see map 1.1.) This owes its existence to glacier meltwater cutting a channel in the rock.

To the north the limestone of the Central Lowand overlaps the granite, but this study area is located south of Sandyford (indicated on map) and therefore is exclusively on the aforementioned granite with veins of schist nearby.

Soil

To the south and west, the glacier-scoured uplands were once denuded by glacial erosion, resulting in light, well-drained soils. However, the various valleys of the region are predominantly products of glacial deposition. Like a number of west-east aligned valleys on the eastern slopes of the Dublin and Wicklow mountains, the lowlands to the east of Barnacullia are products of glacial deposition.

Thus, the floor of the valleys are relatively well endowed with glacial drift material. This glacial till has allowed generations of farmers to push settlement up the valley to a higher altitude than the surrounding landscape, particularly on slopes with a southern aspect.

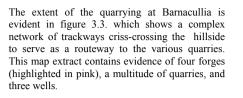
The peatlands of the surrounding landscape are also an important feature of the landscape, and once was an important fuel source. Writing in 1772, Rutty observed that the turf which supplied Dublin was brought from Glenasmole, Barnacullia and Castlekelly Bogs.

From at least as early as the late seventeenth century, Barnacullia was 'packaged' in leases with the lands of Woodside and Sandyford (known as Sandyford, The Wood and 'Barnakilly') This clearly demonstrates the former existence of ancient woodland in this region.

In his 1837 Topographical Dictionary of Ireland, Lewis described this as land which

'is rocky and mountainous, abounding with heath, and there is a considerable quantity of waste, but the system of agriculture is improving; there is some good bog'.

Despite the extensive quarrying, agricultural practice is still evident in the area.



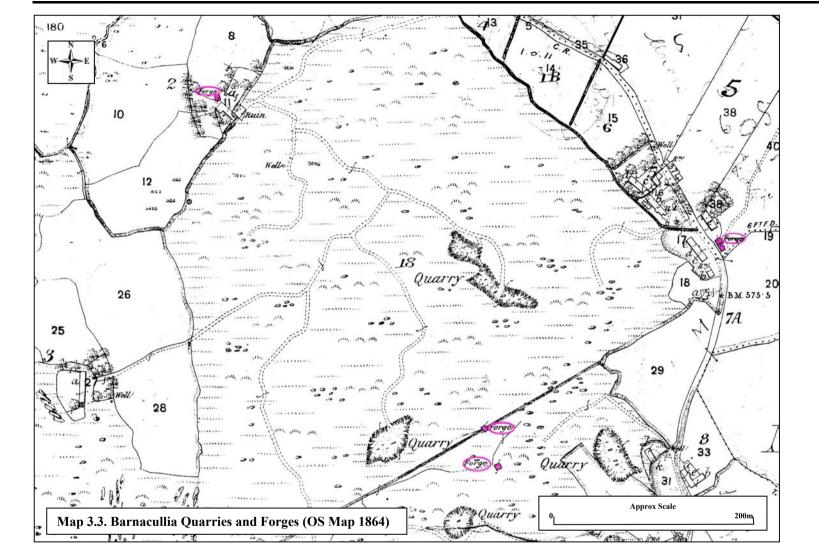
The land in the region was used for agriculture also, with many of the stonecutters families having small plots which they farmed. The Ordnance Survey commented that agriculture in the region was "very little attended to" in the mid nineteenth century (Goodbody).

Summary

The rolling granite of the Dublin mountains forms the main physical feature of the landscape at Barnacullia.

While this is a mountainous area, the glaciations which occurred approximately 10,000 years ago resulted in a relatively well developed glacial till in the valley floor.

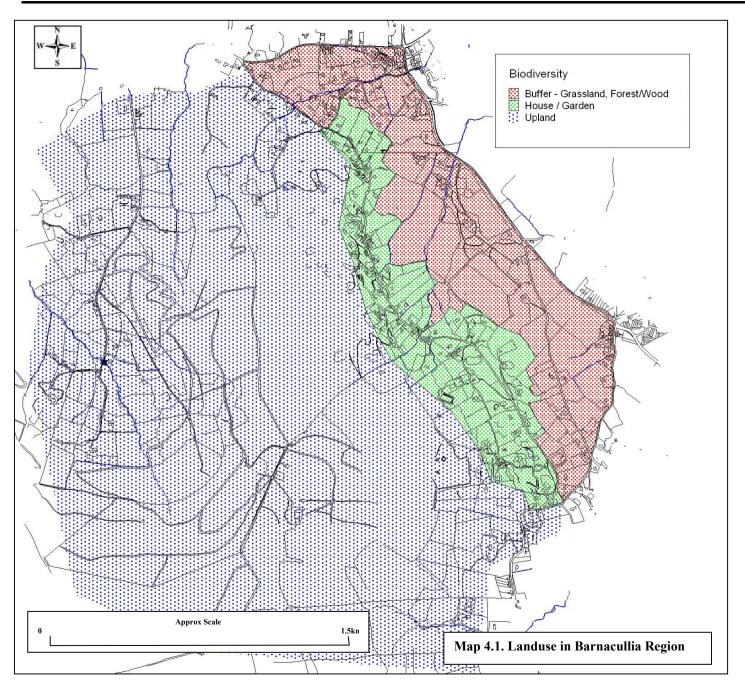
The many quarries and the use of indigenous stone in the construction of many of the early buildings in the area demonstrate the important linkage between humans and the landscape in this area.



Historic Landscape Character Assessment

Barnacullia

Part 4 Biodiversity



Biodiversity

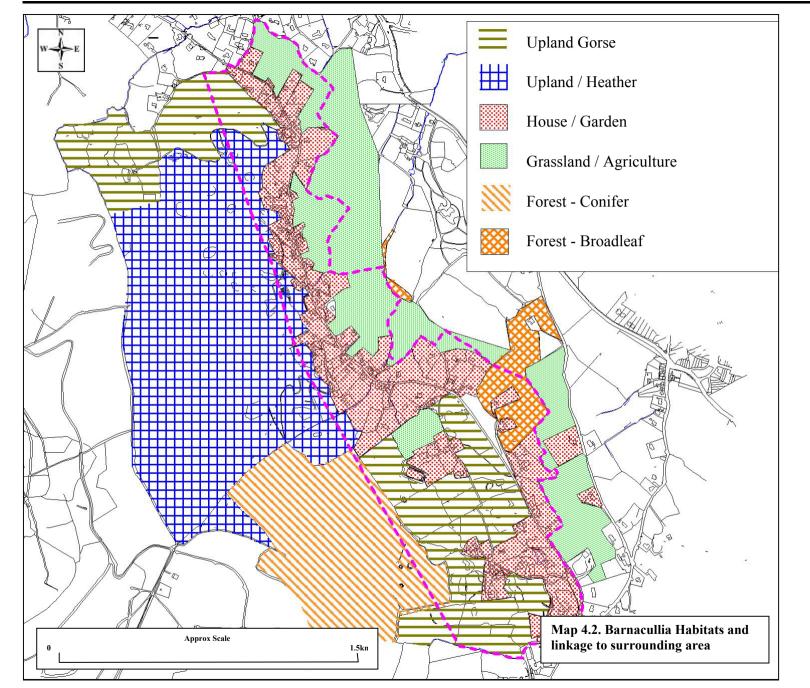
Biodiversity is a measurement of the number of species that are found in a particular habitat or region. The threats to biodiversity come from loss of habitats. Habitats may be lost through changes in land use that reclaim previously unmanaged areas. Agriculture tends to favour a few cultivated species to the cost of many flowering species. Grasslands are now monocultures rather than the mix of flowers and grasses that were common prior to intensive use of fertilizer and cultivation of silage.

Reclamation of rough pasture/heathland has happened to provide for coniferous forestry. New forest planting will remove existing plant communities and attract different bird communities. As forests mature the associated plant and animal communities change so that a growing forest is never static in terms of the species that may be found there.

Development in the form of housing is a threat to biodiversity if habitats are either lost through clearance or fragmented by scattered housing and road networks. This may increase disturbance to wildlife through increased traffic. Domestic animals (dogs and cats) can also be a problem for wildlife and farm animals in rural areas.

Barnacullia Biodiversity

The study area as outline in map 4.1. can be divided into three distinct zones. To the west is the uplands dominated by blanket bog, dry heath and conifer plantations. Below the bog/heath habitats is a zone of houses and gardens that are dominated by shrubs and trees. The eastern boundary of the study area is dominated by grasslands, old hedgerows and some patches of deciduous woodlands. These currently lie outside the boundary but consideration should be given to their role as reservoirs for wildlife species, in particular birds of farmlands and hedgerow, foxes, badgers, rabbits and hares.



Upland Habitat

While most of the upland habitat lies outside the main study area, it has a strong influence on the character of the area, and an impact on the species present.

The uplands vegetation is dominated by heather (*Calluna vulgaris*) and gorse (*Ulex sppi*) and purple moor grass (*Molinia caerulea*). Grazing is critical to the maintenance of this habitat and as agricultural practice changes, this habitat may undergo change with species such as birch (*Betula* spp) and mountain ash (*Sorbus aucuparia*) initially establishing in ungrazed sites.

Fires are another driver of habitat change in this area. Continued burning, perhaps from vandals, leaves peat exposed and prone to erosion. In the long term a strategy to manage this upland area needs to consider how the plant communities should be allowed to develop in the future.

On this open montane area the main bird species to be found are ravens, grouse, kestrels, meadow pipits, hooded crows, snipe and skylark. These species range over the uplands from Two Rock west to Tibradden and south into the Wicklow uplands.

The other significant habitat in the uplands is the coniferous plantations to the south. This is mature spruce (Picea sitchensis). While the trees have little value from a conservation perspective the woodland/forest is a refuge for deer. Red and Sika deer (Cervus elaphus and Cervus nippon) have interbred in the Dublin Wicklow uplands and deer that are pure Red, pure Sika and a blend of both are found throughout the region. Sika deer in particular are a species of the forest and the forest edge. At dusk this small deer (about 80cm at the shoulder) can be seen emerging form the forest to feed in the adjoining heather and molinia. Red deer are much larger animals (up to 1.4m at the shoulder) and remain in the open on high ground. This area when harvested and replanted will be a nesting site for uplands birds but as the canopy closes in ten to fifteen years the area could once again shelter deer.

These uplands sites are a small element of the broader Dublin and Wicklow hills that are most significant as habitats in the Wicklow Uplands National Park. However, the habitat has merits as a refuge for wildlife close to the expanding urban hinterland.

The uplands also have a significant recreational value. This value is manifested in the network of trails that cross the site and lead to the summits of Three Rock, Two Rock and Tibradden. The Wicklow Way passes nearby and there is access to the uplands from Coillte lands and a number of tracks around Barnacullia. While recreation use may act as a driver to protect an area through public support to maintain access and habitats for walking and quiet relaxation there is also the potential for damage to be done to habitats. Fire, trampling of vegetation, path widening, erosion, disturbance of wildlife and damage to fences and the property of landowners or residents are all negative aspects of recreation use that would suggest a management plan is required to control where and how recreation takes place.

The Howth Head SAAO gave rise to the development of a management plan that might serve as a model for a recreation plan for the area. In the absence of such a plan continued recreation pressure in the area is likely over time to give rise to conflict and a wish from some landowners to restrict access.

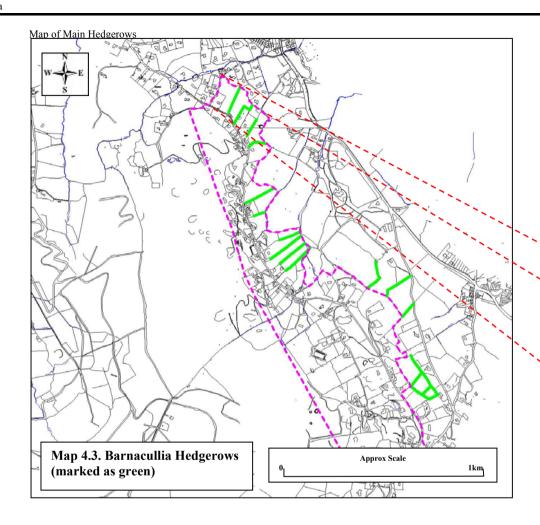


Aerial Photo of Carty's Green area

This aerial photograph shows the southern portion of the study area with coniferous forestry to the west, upland gorse at centre and grassland to east, interspersed with residential landuse. Also visible is deciduous forestry to the top of the photo, between the roadways. The line of an older historic roadway "Carty's Green" is discernable at the centre of the image (this now overgrown routeway is identified in Map 8.1., Page 43).

Houses and Gardens

The housing that runs along the road from south to north is generally characterised by mature gardens and lawns. These are generally well maintained but there appears to be limited disturbance by way of removal of vegetation. This is a well developed habitat that is very suited to woodland and hedgerow bird species. A comprehensive survey of breeding birds should be undertaken in the spring to establish the number of species in the area.



Hedgerows.

Many of the hedgerows in the area are overgrown and not maintained as stockproof fences. While this gives rise to well developed canopies for nesting birds and an under storey for mammals such as field mice, rabbits, foxes and badgers, in the long term, where possible, maintenance of hedgerows on agricultural lands should be encouraged.

Stone walls built using granite provide a habitats for stone crop and other *Sedum* species.



Grassland & Woods

The main area of agricultural grassland is outside the study area to the east. This area and the heathland to the west sandwich the housing and they each may act as refuges for mammal and bird species that feed or breed in the zone of housing and gardens at the heart of the study site. It may therefore be worthwhile considering the inclusion of this area as a buffer to the study area.

A census of breeding birds in the housing/garden area should indicate the value of this area of agricultural grassland to the study area.

In addition to grassland there are patches of mature mixed broadleaved woodlands. Again outside the core study area but perhaps significant refuges or breeding sites for birds and mammals that would pass through or feed in the study area proper.

Discussion

The landscape in Barnacullia changes from west to east from one of relatively low intensity management - forest and heathland, to high intensity management of agriculture and gardens.

To take a broad view of the study area the most important areas from the perspective of biodiversity are the uplands and low intensity agricultural lands. These are areas of heathland and blanket peat and with low levels of management are important sites for wildlife.

A potential threat to this area would be afforestation which would radically alter the nature of the habitats. Recreation use, in particular walking, is well established in the area and attracts large numbers of day walkers to the uplands. The walking tracks are well defined and while damaging to vegetation are relatively limited in extent. A greater threat is 4WD vehicles and motorbikes that can cut up more extensive areas of vegetation particularly on wet peat soils.

The plantation forests are a refuge for bird species as well as deer, badger, fox and squirrel. While managed for timber production these sites remain relatively undisturbed over long periods of time and the harvesting and replanting operations offer a range of tree cover and habitat to wildlife. Studies have identified the range of age classes and forest edge as being beneficial to biodiversity. Their potential for recreation has been recognised by Coillte Teo which has a policy of encouraging public access to forests and offers permits to horse riding centres and other users.

The agricultural lands in the vicinity of Barnacullia are less varied in terms of plant cover and thus, offer fewer habitats to wildlife. Yet, these areas with hedges and stone walls and low levels of disturbance can be important for birds and mammals moving across the landscape.

The heathland/peatland and forest plantations could not be said to be fragmented at present. They are part of a matrix of peatland and coniferous forest that stretches south through the Wicklow uplands. Each, however, is a distinctive habitat type offering little refuge to species from the other habitat.

The Barnacullia / Ballyedmonduff axis is not a wide road and should not be a significant barrier

to the movement of mammals and birds in the area. Housing along the road and increased volumes of traffic may cause rising disturbance to wildlife and cause larger mammals, particularly deer, badgers and foxes to avoid these areas of growing human activity.

Summary:

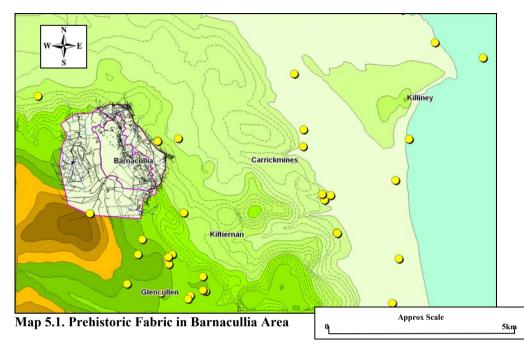
While this is a small study area with limited habitat variation, the landscape in the Barnacullia area has a high value for a broad range of bird species, deer and recreation use. The extensive open upland habitats merge with small scale fields of low intensity agriculture.

There are opportunities for the development of management plans for the area to control damage in the uplands and maximise educational value of this habitat.

Historic Landscape Character Assessment

Barnacullia

Part 5 History and Society



Prehistoric Period

The earliest evidence of human habitation in the Dublin area are scattered findings dated to the **Mesolithic Period**. The majority of these are coastal and to the north of the city in sites such as Sutton and the Malahide estuary.

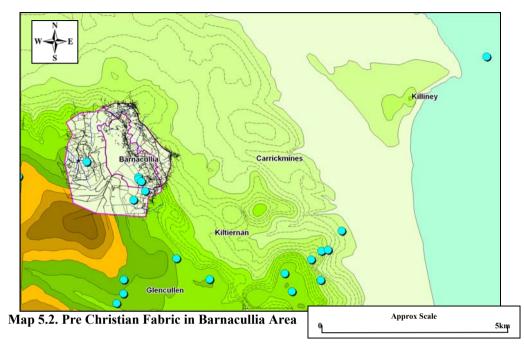
It is in the **Neolithic Period** that the first evidence of habitation appears in the Barnacullia area. Excavations in the region have produced evidence from the Neolithic period in the form of coarse ware pottery, flint arrowheads and scrapers, while Goodbody discusses a stone, discovered in 1968 with decorations similar to that in passage tombs.

There is evidence of tomb building along the flanks of the Dublin Mountains with distinct geographical patterns. Portal tombs are located to the east on the lower slopes of the mountains, Passage tombs are located to the west on the mountain peaks and Wedge tombs are located to the east – also upslope. In the immediate vicinity of Barnacullia there are both Portal and Passage Tombs. The former on the lower slopes to the northwest of the study area, the latter to the southwest on higher ground. To the east of the study area, there is evidence of a number of inscribed stones which are thought to date to the later prehistoric period.

This occupation pattern reflects the simple agriculture practiced at this time which was more suited to the thinner upland soils. This was further aided by the thin forest cover on the tops of hills and mountains. During this period, the lower slopes of the mountains and the lowlands of Ireland would have been covered in native forestry such as oak and ash.

Evidence for habitation in the Dublin area during the **Bronze Age** is rather sparse. The existing evidence (such as the presence of cist burials at Neolithic sites) would however suggest continuity of burial practice from the Neolithic to the Bronze age.

While the pattern is quite mixed, a number of the lowland sites represented in map 5.1. date to the Bronze age, while a number of the upland sites date to the Neolithic period, thus suggesting a gradual transition towards the lowland from the upland.

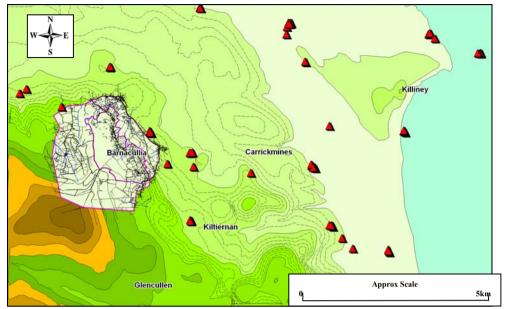


Pre-Christian Period

Near Barnacullia - at Rathmichael, there is evidence of a **later Bronze Age** hillfort, which encloses a ringfort with a souterrain (underground tunnel or chamber). This may have been a ceremonial site, and suggests social organisation of the inhabitants of this period.

The scale of structures such as this and the impressive coastal promontory forts, constructed during the late Bronze age and early Iron age suggests the presence of sizable populations.

There is very little evidence from this period in the immediate Barnacullia area. The majority of the structures indicated in this map are ringforts, which would range in date from the late bronze age to the early iron age.

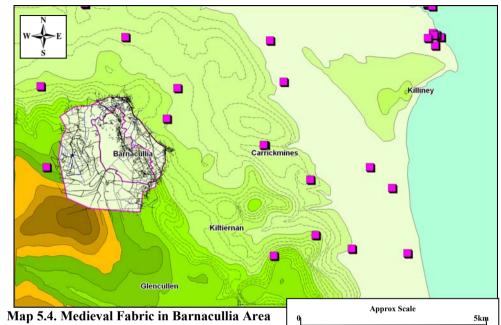


Map 5.3. Early Christian Fabric in Barnacullia Area

Early Christian Period

According to Geraldine Stout, there are sixty-seven pre-Norman ecclesiastical sites in County Dublin, with the main concentration of such sites to the south east of the county. These would have functioned as service and population centres. The closest ecclesiastical fabric to Barnacullia which dates to this period is the extensive early remains at Kilgobbin. However there is profusion of holy wells, crosses, carved stones, graveyards and miscellaneous ecclesiastical fabric.

The changing focus of human activity from upland to lowland is clearly evident by comparing Map 5.3. to Maps 5.1. & 5.2. The concentration of important church sites on the lower fringes of the Dublin Mountains to the north and east of Barnacullia, demonstrates that it is located in an area that was by-passed or overlooked during this period. This pattern follows the general trend evident throughout Ireland



Medieval Period

By the medieval period the focus of settlement was distinctly consolidating in lowland sites where the soil was heavier, and forest covering had been cleared throughout the early Christian period.

There is strong emphasis on continuity with sites such as Rathmichael to the north east and Dalkey on the coast to the northeast displaying artefactural evidence of habitation throughout all the main periods presented in these maps.

Barnacullia, however, appears to have been overlooked as a settlement site. This reflects the daunting landscape from an agricultural or settlement viewpoint. The nearby lowlands were more attractive to settlers during this and later periods.

In exploring the line of the medieval Pale Ditch, Goodbody highlights the local belief that part of the footpath at Glovers Lane may follow part of the ditch.

While he (Goodbody, 1993) states that this is difficult to fit in with other alignments, it is clear from the physical evidence in this area, the related structures in the surrounding area, and from cartographic analysis, that the presence of a Pale Ditch is quite likely. This definitely merits further study, ideally with archaeological, cartographic and documentary analysis.

Summary

The area around Barnacullia displays evidence of settlement which stretches back approximately 5000 years. The pattern of this settlement has varied over time, with a gap in settlement evidence from the Early Christian period to more recent times.

Despite wide-scale quarrying of rock in the region, there is an abundance of prehistoric structures surviving on the landscape.

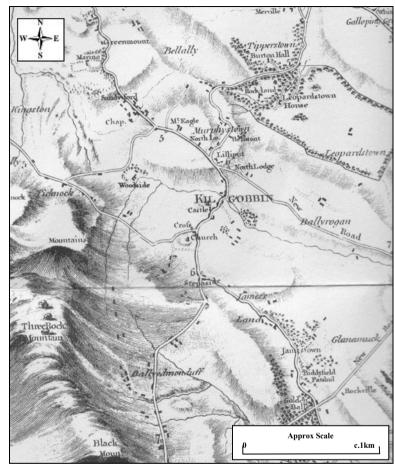
The possibility of a Pale ditch traversing the study area merits further investigation



Map 5.5. Roque 1750

In Roque's 1750 map there is no evidence of the road which runs through Barnacullia. In order to orientate this map one can use Killgobbin church as an anchor point on this and the 1837 Ordnance Survey map. The two north-south linear features indicated to the east of Three Rock Mountain are streams which can also be identified on various other maps.

In the Roque map however, there is the suggestion of buildings on the mountainside, and perhaps pathways – as indicated by the dotted lines. Thus, some informal routeways may have existed at this time.



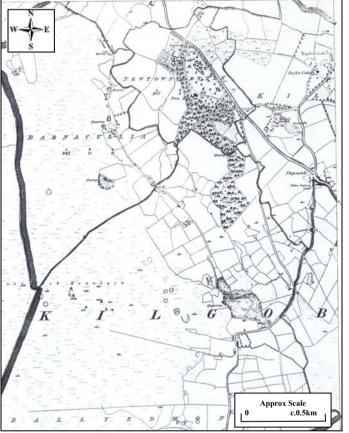
Map 5.6. Taylor 1816

The similarity between Roque's map and that of Taylor is interesting, despite the 134 years between their execution. A number of routeways identified by Roque are not presented by Taylor, and his representation of settlements is closer to modern cartography than Roque's use of representational symbols.

In both of these maps there is evidence of a linear set of houses between the two rivers, but there is no clear evidence of a routeway.

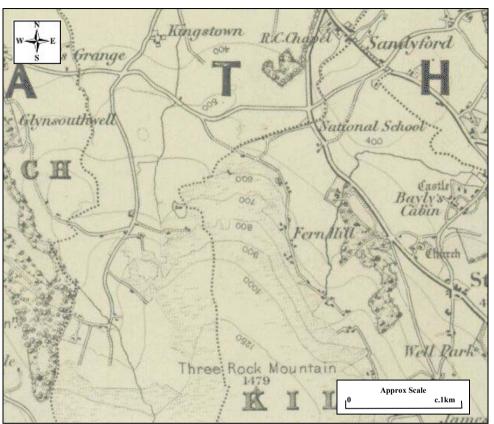
At first glance the roadway running from Kilgobbin Church westwards up the hill to Barnacullia appears to have disappeared off the modern map. However, this route still survives as a pedestrian footpath.

Conflicts regarding survival of rights-of-way are not exclusively modern events. Alderman Darley, occupier of Fern Hill, his son and grandson all attempted to close access to this routeway, with resultant court cases.



Map 5.7. First Edition Ordnance Survey of Ireland (1837) 6 inch map sheet 25

By the 1837 map a roadway appears to have been developed, however this runs from the north of the map, and serves 3 minor quarries before reaching the major quarry to the south of the study area (see map 5.10 for change from Carty's Green to present day 'main' road through Barnacullia.

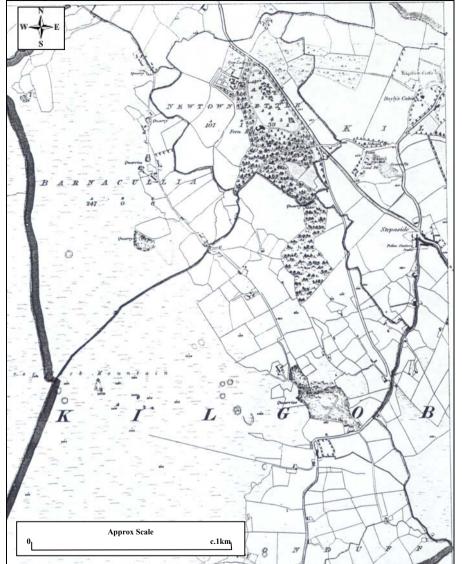


Map 5.8. Ordnance Survey of Ireland (1860) 1 inch map sheet 26

The low status of Barnacullia as a settlement and its fragmentation is evidenced in its absence from the various maps under investigation. The 1 inch Ordnance Survey extract above illustrates the Barnacullia road to the west of Fern Hill, but in this instance the road is not continuous – and in its southern portion (above the 'G' of 'Kilgob') it is little more than a dirt track.

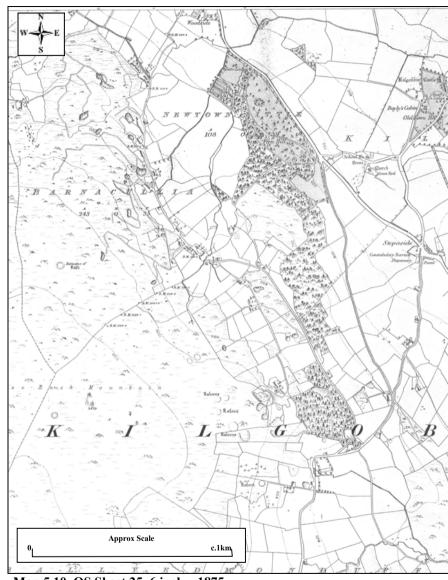
While no quarries are indicated on this map, there are a number of settlement clusters indicated along the roadway

Also worth noting is the presence of a National School, and church, thus suggesting a critical mass of population in the region.

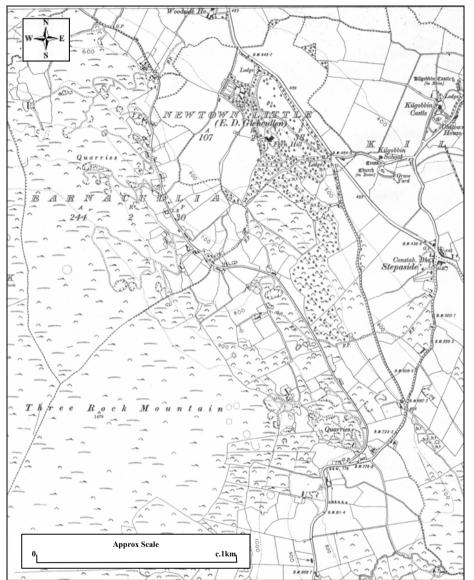


Chronological Sequence of Historic Maps – 1830s to Present Day

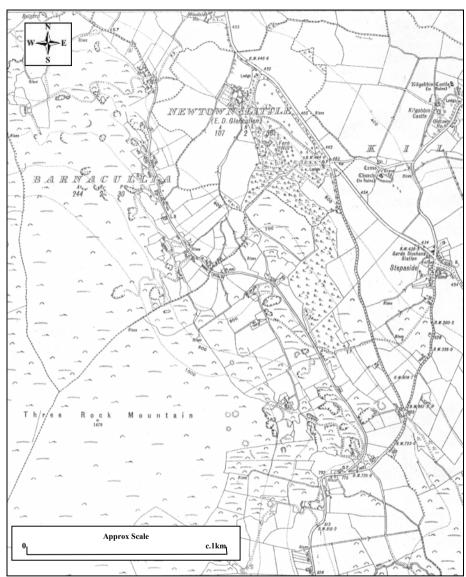
Map 5.9. OS Sheet 25, First Edition 6 inch - 1837



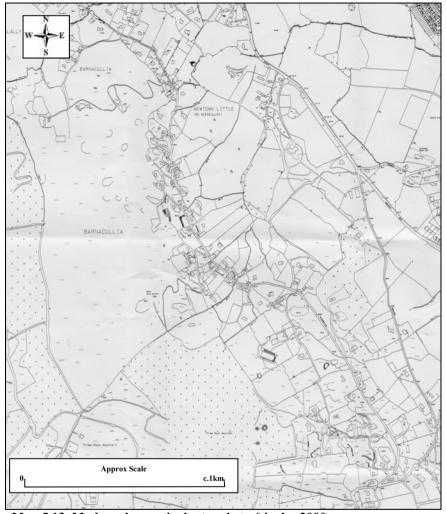
Map 5.10. OS Sheet 25, 6 inch – 1875



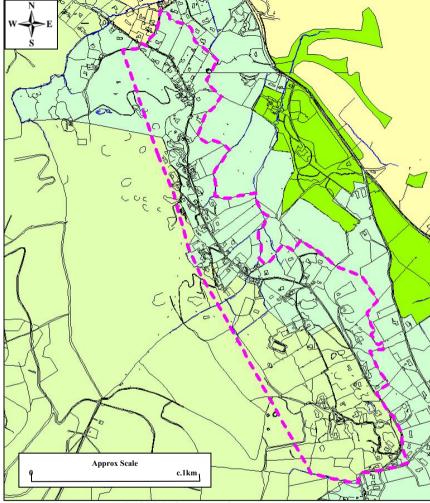
Map 5.11. OS Sheet 25, 6 inch – 1912



Map 5.12. OS Sheet 25, 6 inch - 1935



Map 5.13. Modern day equivalent scale to 6 inch - 2000s



Map 5.14. Barnacullia 2004 (Source : County Development Plan)

1830s to Present Day Land Zoning

Just as the Barnacullia region was a zone of transition in historical times, the area is also a frontier between urban and rural landscapes at the present time.

Since the first edition Ordnance Survey map of 1837, the main influence has been the development of settlement in much of the area now known as Barnacullia. The nature of this in-filling is strongly influenced by the topography of the surrounding landscape, with settlement following a strong linear pattern.

The classic moor land and open mountain once typical of the landscape to the west of the settlement has been replaced in many places by cultivated and enclosed forestry, thereby changing the character of this area substantially in recent times.

The open views to the east are a further key element of the landscape, but the intensive build-up of settlement to the east of the Enniskerry road threatens these views.