

# THE CHAMBERED TOMBS OF THE ISLE OF MAN

A STUDY BY AUDREY HENSHALL  
1969-1978

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## Preface

The Manx chambered tomb group comprises ten archaeological sites which date to the Neolithic period. Some are amongst the most dramatic prehistoric sites in the Manx landscape. Constructed using *megaliths* (large stones), this monument type can be found throughout western Europe. These monuments may also be known as megalithic tombs, passage graves, court tombs and chambered cairns.

Most of the Manx examples are publicly accessible; Meayll Hill, Cashtal yn Ard, Ballafayle, the relocated stones from Ballaharra (opposite the Royal Chapel in St John's) and King Orry's Grave. The Cloven Stones, Ballakelly, Kew and Clay Head are on private property, whilst only records exist of the monument at Port St Mary, destroyed in 1889.

None are now in their original form. They have been eroded, excavated, deliberately dismantled or denuded. The structures that remain are only skeletons, and this has led to their misleading classifications as 'stone circles' in some instances. Nevertheless, the remains stand serene yet dramatic in the Manx landscape, providing a tantalising glimpse of life and death around 6000 years ago.

Precise dating of the structures and the building phases is difficult. Most are early to middle Neolithic (4000–3000 BC) but some were reused in the later Neolithic (3000–2000 BC) and possibly into the early Bronze Age (2000–1500 BC).

The sites themselves are mostly in the east of the Island, but otherwise seem to follow no particular pattern. The location is varied – some are almost at the summit of hills, others sit part of the way up slopes, some lie at the base and one was on the shore. Some are inland and some are near cliff edges. They differ in shape and there is no inter-visibility between any of the monuments. The monuments do however share characteristics with those in Scotland and Ireland, a reflection of the geographical position of the Isle of Man and also an indication of the reality of travel in prehistory and the exchange of people, ideas, building techniques and beliefs.

Since their use, the original contents of the monuments have been disturbed but finds have included pottery vessels, flint arrowheads and other tools, beads, charcoal, cremated and uncremated human bone. As well as being funerary memorials and burial places for several individuals, they also acted as important markers in the Manx landscape.

Given the variety and uncertainty surrounding these most obvious of monuments, it is perhaps surprising

that there has been no book specifically covering in detail the megaliths on the Isle of Man. The sites have been talked about in some form for over 200 years and there have been numerous reports, theories and illustrations of the monuments but no one, definitive work on the Manx megaliths. This publication addresses that gap.

Modern study of the monuments started with Philip Kermode and continued with Basil Megaw, but it was in 1969 that the research for this publication began. Audrey Henshall OBE, a leading expert and author of several seminal works on the megalithic monuments of Scotland, was invited to review all megalithic monuments on Man. Most of the text was completed by 1974 but remained unpublished. Under the auspices of the Centre for Manx Studies and Manx National Heritage, a review of the text, initiated by Dr Peter Davey, began in 1997. The main task was undertaken by Frances Lynch MBE, an Honorary Research Fellow at the University of Bangor, who has researched and written extensively on prehistoric monuments, most notably in Wales but also in Britain and Ireland.

Audrey Henshall's work on the Manx monuments has now been collated, reviewed and updated by Frances Lynch. Evidence from antiquarian and archaeological excavations as well as documentary and art sources is presented here, as are relationships between Manx megalithic monuments and those elsewhere. Detailed catalogue descriptions will assist the reader to picture those sites that are not publicly accessible and the full bibliography of published and unpublished sources, lists of finds and discussion of sites will provide further comprehensive information.

Frances Lynch has added profiles and elevations to plans, and illustrations have been redrawn and digitised. With sections on the geographical and geological environment and the changing natural environment contributed by the late Marshall Cubbon and Dr Philippa Tomlinson respectively, *The Chambered Tombs of the Isle of Man* presents a comprehensive picture of not only these monuments, but also their environment.

It is acknowledged that this is our understanding of the subject matter today and additional sites may be identified in the future. In the meantime, this book will provide detailed information not only for historians, archaeologists and educationalists, but also for those with a general interest in these fascinating and evocative monuments and in the people who built them.

*Allison Fox - Manx National Heritage*



# Introduction

## INTRODUCTION TO CHAMBERED TOMBS

The great stone tombs of the Neolithic are the earliest buildings still surviving in our modern landscapes to remind us daily of our remote ancestors, to impress us with their engineering skill and to tantalise us with the mystery of their meaning and the motivation of their builders.

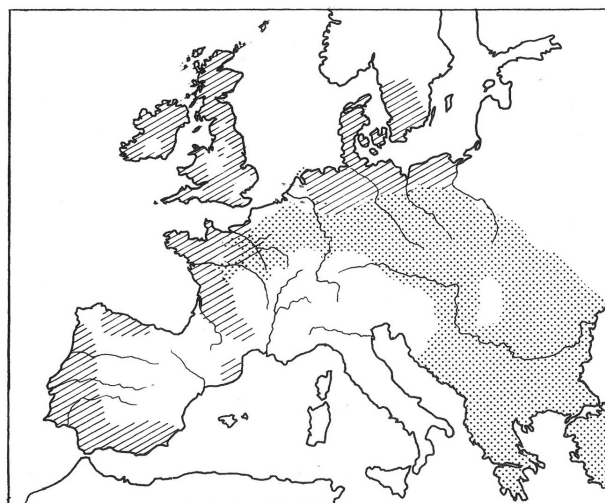
Such conspicuous monuments have naturally been the subject of much study and debate: their date, their purpose, the significance of various designs, the economic support and the social organisation behind their building. Not all these questions, especially those of role and society, can be answered with finality.

The frequent discovery of bones implies a funerary use but modern interpretations stress additional roles: the creation of community identity and the legitimization of landholding by making manifest the power of the ancestors buried within the monument, so attracting ceremonies over and above those of actual burial.

These monuments occur widely in Western Europe - Spain, Portugal, western France, especially Brittany, Ireland and Britain - and also in Scandinavia and northern Europe (Fig. 1). In broad terms they date from the period of the first farming communities and the interest in continuity, fertility and landholding that they imply is consistent with the concerns of farmers in all ages. Why the phenomenon of monumental burial should arise in western rather than Eastern Europe, where farming was intensively practised, is a more difficult question which may have something to do with the strength of local hunter-gatherer traditions in coastal regions.

The extent of contact between the various megalithic tomb-building groups is also debatable. Modern scholarship emphasises the independent development of most regional traditions, in contrast to earlier opinion which linked them in a diffusionist scenario: but within a small and well-sailed basin, such as the north Irish Sea, it is clear that men and ideas could be readily exchanged.

A study of the tombs of the Isle of Man demonstrates this proposition well. The choice of burial chamber design and tomb frontage at the most distinctive Manx monuments shows a combination of ideas from northern Ireland and south west Scotland where two parallel traditions involving rectangular chambers and long cairns were emerging in the centuries around 4000 cal BC. Behind and beside these traditions lie the series of wooden chambers with long earthen mounds which can be found in eastern England, but because of their perishable materials, are no longer as impressive as



*Fig. 1. European distribution of monumental tombs (hatched) and Danubian and related farming cultures (stippled). Mediterranean cultures are not shown. (Reproduced from Lynch 1997 with permission)*

their stone equivalents in the west. Monuments such as Ballafayle reveal the essential unity of the long mound tradition in these islands, despite the difference in building materials. Variation in chamber construction and entrance enhancement reveal regional preferences which may have hardened later into more dogmatic observance.

The Isle of Man also received ideas from further afield. The Passage Grave tradition, in which the burial chamber is separated from the world of the living by a passage and is normally covered by a round mound, has a more international flavour. In the Irish Sea province they are widely scattered and do not seem to take deep root, perhaps because alternative styles of tomb were already established. In the north of Scotland, however, this design is dominant and some contact must have been maintained between that region and the Isle of Man, a convenient stopping place for sailors throughout history.

This central position on busy sea routes has brought many new ideas to the island and consequently it is not surprising that some of the tombs show alterations and additions, and others were built in ways which reveal a unique combination of styles.

### Previous work on Manx chambered tombs

The Manx chambered tombs, though few in number, are remarkably diverse in character, and include two large and complex monuments. Brief notices of individual sites have appeared spasmodically in archaeological literature for almost 200 years; three short accounts of

excavations have been published, and some 80 years ago there appeared a general paper dealing specifically with the tombs (Megaw 1937). General studies of megalithic tombs in Britain and Ireland have usually included a mention of the best-known monuments but no detailed study of all of them has often been attempted.

All the monuments are now badly ruined, none retaining the roofing of the chambers, and most retaining little or nothing of the cairns which once surrounded and covered them. Consequently it is particularly important to gather all possible information from sources written when the monuments were more intact. These references are listed in the Catalogue entry for each tomb but it is relevant at this point to consider the development of the study in broader terms.

The earliest reference to a tomb is in Feltham's *Tour*, undertaken in 1797 and 1798, where The Cloven Stones at Baldrine are mentioned and illustrated by a quaint but informative engraving. Since that time this small tomb has been greatly damaged and little but confusion has been added in the many subsequent notes.

During the 19th century a considerable number of visitors' guides to the Island were published, a by-product of the deliberate encouragement of a tourist trade, started at the beginning of the century by the Governor in Chief, the 4th Duke of Atholl; at first as a refined commercial enterprise catering for those members of the upper classes deprived of their continental sojourns by the Napoleonic wars, and continued ever since as an increasingly important part of the Island economy.

Useful scraps of information may be gleaned from those guides which describe the 'druidical remains'. The Revd. S. Haining published the first guide in 1822, including a chapter on 'The Antiquities, Curiosities, Prospects and Scenery' with descriptions of the tombs of Ballakelly, The Cloven Stones and King Orry's Grave amongst the other antiquities. By and large later guides plagiarised the earlier descriptions, sometimes rendering them wholly misleading; even the more serious works which included mention of the tombs, such as that of the Revd. J. G. Cumming on Manx crosses, are equally to be criticised. These sources, listed in the bibliography to Megaw's 1937 paper, therefore have to be used with care.

The first lengthy account of the 'Ancient Remains' was that of Dr H.R. Oswald, published in his *Vestigia* of 1860 but based upon work undertaken, probably for a guide to the antiquities for his patron the Duke of Atholl, between 1815 and 1822. Oswald had written a paper on some prehistoric monuments as early as 1815, and certainly he visited Cashtal yn Ard in 1817 or 1818. In 1822 he submitted an untitled manuscript to the Society of Antiquaries of Scotland, only a fragment of which

was published. The *Vestigia* chapter is an enlargement of this and for a work of 1860 it is clearly old fashioned, interpreting the monuments, among them The Cloven Stones, King Orry's Grave and Cashtal yn Ard, in terms of druidical altars, sun and moon worship, and the domiciles of Pagans.

The records of the 1820s are rather vague: views and sketch plans only but we are fortunate to have them. Oswald's description and perhaps G. W. Carrington's 1822 drawing of Cashtal yn Ard, were made before the severe robbing of the cairn, then interpreted as 'a dwelling of some importance, having a Druidical circle or temple attached'. About the same time Oswald visited King Orry's Grave and made a sketch plan, our sole source for the pre-destruction appearance of that particularly complex monument.

About the middle of the century a more serious interest in the Island's antiquities was developing, stimulated by the week-long visit of the Cambrian Archaeological Association, invited in 1865 by the Governor to report on the state of the monuments. For this occasion several papers were prepared, and published in the 1866 volume of *Archaeologia Cambrensis*; they included the description of the Meayll Hill site by J. M. Jeffcott of Castletown, and, more useful, the descriptions with well-drawn illustrations of the small simple chamber at Ballakelly and the first mention of the monument at Kew by the Revd. E. L. Barnwell, of Ruthin, Denbighshire, a notable scholar and astute fieldworker.

Among the visitors there was also Professor Sir J. Y. Simpson of Edinburgh, the pioneer of anaesthesia, whose observations on the Ballakelly cup-marks were incorporated into his comprehensive work on the subject published in 1867.

The 1860s ushered in a much more objective period of recording with accurate and detailed plans being produced. The brothers, the Revd. W. C. Lukis and Capt. F. C. Lukis, were on the Island in 1865; the former was planning sites including The Cloven Stones and King Orry's Grave, the latter was excavating the Ballakelly chamber. In 1873 W. C. Lukis returned with his friend Sir Henry Dryden, and together they prepared measured plans and elevations of King Orry's Grave, The Cloven Stones and Meayll Hill. In 1867 A. L. Lewis, a reliable fieldworker and prolific writer on stone circles and similar monuments, visited a number of sites, including King Orry's Grave where he saw the houses being built. However he did not publish his observations until 1872; unfortunately the Lukis and Dryden plans were never published, though the manuscripts survived and are used here.

Another, and more active, phase in the study of the chamber tombs was due to the energy of P. M.



C. Kermode, a lawyer and scholarly naturalist and geologist, who devoted the greater part of his energies to the study and preservation of Manx antiquities. In 1922 he became first Director of the Manx Museum, the foundation of which was due largely to his efforts. This period saw the beginning of serious excavation at some of the sites.

In 1892 Kermode joined with Sir W. A. Herdman, Professor of Natural History at the University of Liverpool, to excavate what was already recognised as a unique and puzzling monument, the so-called Mull Circle on Meayll Hill. The site lay a short distance above the newly established Marine Biological Station with which Herdman was closely concerned.

Six small chambers, each with a T-shaped plan, named 'tritaphs' by the excavators, were already partly exposed, arranged in a circle, the covering mound having been almost entirely removed long before the first record of the site in 1863. The excavation produced little further structural information, but a quantity of bones and pottery was recovered, together with a few flint artefacts. The pottery was subsequently published in detail by Stuart Piggott (1932a) who was able to show its relationship with the Neolithic A, or Shouldered/Western Neolithic, pottery of Britain, which he had recently defined in a classic study (1931).

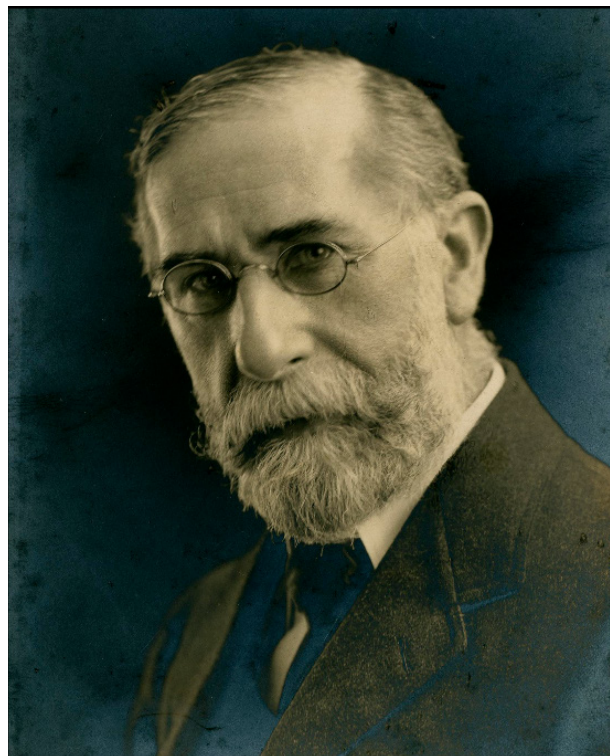


*Pl. 1. P. M. C. Kermode*

In 1926 Kermode excavated the trapezoid cairn he had himself discovered at Ballafayle. The site was enigmatic, not producing the expected stone-built chamber in spite of the remains of an orthostatic facade at the wider end, and Kermode percipiently suggested that the interior structure might have been of wood. The only finds were two cremations, three pits, and extensive signs of burning. No formal report was published as Kermode died soon after the excavation, but the site was subsequently recognised by Clark (1935, 78) and Piggott (1954, 162) as related to the long barrows with cremation trenches then known in Yorkshire.

In 1936, at the invitation of the Trustees of the Manx Museum, H. J. Fleure, Professor of Geography at The University of Manchester, with G. J. H. Neely, excavated Cashtal yn Ard (Fleure and Neely 1936). The results were disappointing, due to the severe destruction of the site and the 1884 investigations of Canon Harrison who had in fact already recovered almost all the sparse finds and published the first plan of the site (Jewitt 1885, reproduced in Fleure and Neely 1936). The most interesting aspect of the excavation was the exposure of the mysterious 'burnt mound' behind the chamber.

After the Second World War, during which major archaeological work had been carried out on the island but not involving any of the tombs, excavations were undertaken at the NE end of King Orry's Grave by B. R. S. Megaw, then Director of the Manx Museum, with the assistance of P.S. Gelling. The work in 1953-4 revealed



*Pl. 2. Sir W. A. Herdman*



Pl. 3. B. R. S. Megaw

the true plan of this end of the monument, with finds of flints in the forecourt and a few sherds and flints in the chamber. The stony material filling the forecourt area had been little disturbed which allowed detailed study and interpretation of these important deposits. The publication of the excavation forms Appendix 1 of this monograph.

In 1969, in advance of a visit by the Prehistoric Society planned for 1971, Audrey Henshall (Pl. 4), who had recently completed her major survey of Scottish tombs, was invited by the Manx Museum to review all the megalithic tombs on the Island and also to do some small excavations at Meayll Hill to establish the original edge of the cairn.

The latest investigation of a megalithic structure on the Island also took place in 1971, at Ballaharra. The recognition, during sand quarrying, of the remains of a buried 'chamber' led to excavation of the multi-period site by Miss S. M. Cregeen. In addition to the megalithic structure there were complex pits, deposits of cremated bone and other features, as well as a remarkable range of pottery and flints. That excavation report is also published in this monograph, in a form finalised by Dr Davey and Mr Higgins of the Centre for Manx Studies after Miss Cregeen's death.

Modern syntheses of Manx prehistory began with Kermodé who put together a discussion of Manx Neolithic and Bronze Age monuments on the occasion of a second visit by the Cambrian Archaeological Association (Kermodé 1929). In 1937 Megaw wrote his comprehensive paper on the Manx Megaliths, describing the monuments briefly and attempting a classification to bring them within the framework of British prehistory. Megaw, using the current terminology, classed most of the tombs as gallery graves of the Clyde-Carlingford

type, then known in considerable numbers in SW Scotland and N Ireland. He saw clearly that Cashtal yn Ard was a fine tomb of this type, as was probably King Orry's Grave (the NE end not yet having been excavated); he also included The Cloven Stones and Ballakelly, whilst Meayll Hill he related to the multiple-chamber cairns known to occur amongst Clyde-Carlingford cairns. The only tomb he considered likely to be a passage-grave was Kew.

In the list of sites and the very full bibliography Megaw included a number of monuments not included in the present work, either because they have no distinctive features to allow firm classification as a chambered tomb, or because they seemed to Miss Henshall more likely to belong to the subsequent single-grave tradition. The distinction remains a difficult one and the present editor would be inclined to reject more sites than did Miss Henshall.

Wider surveys of megalithic tombs at this time included some comment on the Manx monuments. J. G. D. Clark, writing in 1935, had classified Kew, as well as Cashtal yn Ard and King Orry's Grave, as long cairns of Clyde-Carlingford type, Meayll Hill as a baffling insular development and Ballafayle as related to the Yorkshire cremation-trench barrows. He also drew attention to the 'cists' at Port St. Mary as a possible neolithic tomb - a view accepted by Miss Henshall.

G. E. Daniel, in his work on *The Chambered Tombs of England and Wales* published in 1950, discussed the Manx tombs, including them in his Irish Sea group and regarding them all as likely to be due to colonisation by the builders of Clyde-Carlingford tombs, and to local evolution. In discussing details of tomb structure he mentioned the port-hole entrance at King Orry's Grave which he linked to other examples in the Cotswolds - a tomb-building area considered to have far-flung connections.

Piggott, in his *Neolithic Cultures of the British Isles* (1954), agreed with Clark in his assessment of Ballafayle, and with Clark, Megaw and Daniel regarding the Clyde-Carlingford relationships of Cashtal yn Ard, King Orry's Grave, probably Port St. Mary and Meayll Hill. Piggott had already suggested that this last might owe part of its ancestry to the henge monuments (1932a).

A brief synthesis of Henshall's work was published in 1978 (Henshall in Davey 1978). Some slight modifications of opinion and classification in this volume result from more recent work elsewhere, and are due to the present editor.

New programmes of excavation at Billown in the south of the island, led by Prof. Tim Darvill of Bournemouth University from 1995, have provided new material and ideas, mainly relating to the Late Neolithic. This work (Darvill 1996-2004) has raised the profile of the island's archaeology, in turn stimulating interest in the other monuments as subjects of speculative interpretations (eg

Fowler 2001). From an early stage the Bournemouth work led to new studies of the pottery (now published as *The Neolithic Culture of the Isle of Man* (Burrow 1997) and new geophysical and other surveys of the megalithic monuments in their setting (Darvill 1997-2004). The work to bring the excavation record of Ballaharra to full publication has been another stimulus to speculation, as all difficult monuments are, since they can be all things to all men. In 1997 the Centre for Manx Studies held another major conference, published in 1999, bringing up to date their 1978 survey of Manx archaeology and history (Davey 1999) and from that date the island has featured in a flurry of volumes dealing with the Neolithic archaeology of the Irish Sea region (Ritchie 2000; Armit *et al* 2003; Cummings and Fowler 2004).

As far as the chambered tombs have been concerned, all commentators agree that the three monuments near Laxey, Ballafayle, Cashtal yn Ard and King Orry's Grave, have connections with the north of Ireland and south west Scotland and are likely to be amongst the earliest. All agree, too, that Meayll Hill is a unique monument, though

its inspiration may be sought in different regions. Only Davey (2004) feels that it is not a funerary monument. The classification of the Cloven Stones and of Kew as Passage Graves is less confidently believed. Rather surprisingly Darvill (2000a) and Davey (2004) claim that the Cloven Stones was a Court Tomb of some kind. Rather more wisely Cummings and Fowler consider them unclassifiable, along with Ballakelly, which Davey (2004) thinks is Bronze Age and which Darvill classifies as an outlier of the late Scilly-Tramore Group (2000a and 2010), having previously thought it might be a Portal Dolmen (Burrow 1997, 37). Squarish boxes (all now destroyed) such as Port St Mary, Clay Head and Ballaharra, have often been ignored or allocated to the Bronze Age, though the puzzling Ballaharra occasionally appears in surprising guises (Darvill 2000a and Davey 2004).

All these articles have built their differing syntheses and interpretations on the established factual base presented by recorders over the years and re-presented here in the objective record provided by Miss Henshall, one of the most experienced observers of these tombs.



Pl. 4. Audrey Henshall 2004. (Photo provided by Society of Antiquaries of Scotland)

**Note on the preparation of this volume and Acknowledgments**

The fieldwork for this monograph was undertaken by Audrey Henshall intermittently between 1969-72 and her text was essentially completed in 1974. However it was not published at that time because details of unpublished excavations at Ballaharra were not then available and the work languished. With the establishment of the Centre for Manx Studies in 1992 the project was revived, but Miss Henshall felt that the task of final editing and updating might, after such a long interval, be more appropriately done by others. The present editor started work in 1997 and would like to record her gratitude to Miss Henshall and to the staff of the Centre, especially its Director, Dr Peter Davey, and to the Manx Museum, especially Allison Fox, for generous help and cooperation. Final publication has been delayed largely because of difficulties associated

with the incorporation of the final publication of the Ballaharra excavation within the volume.

The plans were made by Miss Henshall in 1969-72 but the profiles and elevations were added by the present editor with the help of Nick Johnson and James Cleator. The detailed site descriptions and commentaries (on typology and on finds) were written by Audrey Henshall but the latter have been brought up to date by the present editor with comments on post-1972 work. Where any conclusions have been changed it is noted in the text. The illustrations have been redrawn and digitised with the help of Susie White, Tanya Berks, Catherine Rees and Brian Williams, and the maps produced by Rob Clynes, Isle of Man Government Cartographer.

The results of the geophysical survey at Ballafayle and laser scans of cup-marks at Ballakelly are reproduced by permission of Timothy Darvill and the Billown Neolithic Landscape Project, Bournemouth University.

## THE NATURAL SETTING

### The Geographical and Geological Background

by Marshall Cubbon - formerly Director of the Manx Museum

The Isle of Man, in its central position in the Irish Sea, where its rounded hills would have been easily visible in clear weather from south-west Scotland, north-west England, north-east Ireland and north Wales, would certainly have been known to Neolithic mariners (Watson 2004).

The main geological core of the island (Fig. 2) is formed of ancient, hard, grey Lower-Palaeozoic rocks known as the Manx Group (formerly called the Manx Slate Series) which are dated to the Ordovician period, together with a small area in the west of the island just south of Peel, the Dalby group, which is dated to the Lower Silurian (see Burnett and Quirk 2006 for more details). The Manx Group consists for the most part of mudstones; slate beds, which gave these rocks their earlier name, are relatively rare within the series of flags and grits which form greywackes. They have been subjected to successive earth movements, resulting in intensive folding and faulting, producing hard and highly resistant rocks, but ones that do not lend themselves to easy working to form readily-dressed building stone. They form about two thirds of the Island, and in particular the central hilly massif, rising to just over 621m above sea level (cf Chadwick R.A. *et al.*, 2001). The massif is divided by a trough of low land between Douglas and Peel, the middle portion of which forms the central valley from which rivers drain to the lowland basins which form the hinterlands of Douglas and Peel. The two main hill chains, which run from south-west to north-east, are flanked by dissected high-level plateaux and upland valleys, into which steep-sided glens have been cut by the two radiating river systems of the northern and southern hills. Lower and more extensive coastal plateaux, at 122 -152m above sea level, flank the hilly massif to east and west; though south of the central valley the western coastal plateau is pinched out as the hills drop steeply to the coast south of Niarbyl. South of Cronk ny Arrey Laa the upland hills continue, at reducing altitude through Lhaittee ny Beinney, the Carnanes, Bradda Hill, the Meayll peninsula and the Calf of Man.

A number of igneous intrusions occur within the Manx Group (Quirk and Burnett 2006). Two major outcrops of granite are exposed at Dhoon and Foxdale, with a smaller more complex exposure at Oatlands. Another outcrop near Ballapaddag has been identified as the possible source of several Late Neolithic stone axes (Coope and Garrad 1988). A small outcrop of gabbro occurs at Poortown in addition to a wide scatter of greenstone and lamprophyre dykes. Mineral veins occur within the Manx Group rocks and the granites, and lead, zinc, copper and some silver have been mined, in particular at

Laxey, Foxdale and Bradda Head, while iron ore was mined near Maughold (Ford, Quirk and Thomas 2006).

In the south east of the island an area of down-faulted Carboniferous limestone (with associated basal conglomerates) forms a shallow basin which underlies the central area of the south eastern lowland around Castletown (Quirk, Burnett and Thomas 2006). The Manx Group rises again to the south east to form the long peninsula of Langness. A series of Carboniferous volcanic rocks is exposed along the low coast west of Castletown. Similarly down-faulting has resulted in a small area of red sandstone underlying the hinterland to the north east and south east of Peel (Quirk and Thomas 2006).

Both the Castletown and Peel lowlands extend well beyond the projected extent of the areas of limestone and sandstone, and as with most of the lowland in the Isle of Man the solid geology is covered by extensive deposits of boulder clay with associated fluvio-glacial sands and gravels, and post glacial alluvial deposits. Even in the hillier areas of the Island a discontinuous blanket of glacial material, with late glacial solifluxion deposits in places, normally overlies the solid rock. All the flint found in the Island, which was of such importance to prehistoric man, is glacially derived.

The greatest extent of glacial deposition is represented by the northern plain of the Island; borings through this plain do not strike solid rock until over 100m below sea level. The topography of the northern plain is thus derived from the late glacial geology of the area. The area of the Bride hills rising to 96m, extending westwards and south westwards through Jurby Head and Orrisdale to Kirk Michael, represents a moraine formed along the line of the ice front during a series of temporary halts in the melt-back of the final ice sheet occupying the northern Irish Sea basin. Fluvio-glacial deposits of sands and gravels built up delta platforms extending southwards from the ice front within the late glacial lake which was trapped between the ice front and the Manx Slate massif. The Ballaugh curraghs (the most extensive area of boggy wetland in the Island) represent the last remnant of this ice-dammed lake, surviving between the delta platforms and the steep northern margin of the Manx hills, after further retreat of the ice sheet had allowed the glacial lake to drain into the rising sea. For a more detailed geomorphological breakdown of the topography of the Island see Chiverrell and Thomas 2006.

The geological and geomorphological basis of the Manx landscape has a significant impact on the character of the coastline, and the availability of landing places for Neolithic settlers. While Mesolithic hunters found the north western and southern coastal plains agreeable,

# The ISLE of MAN

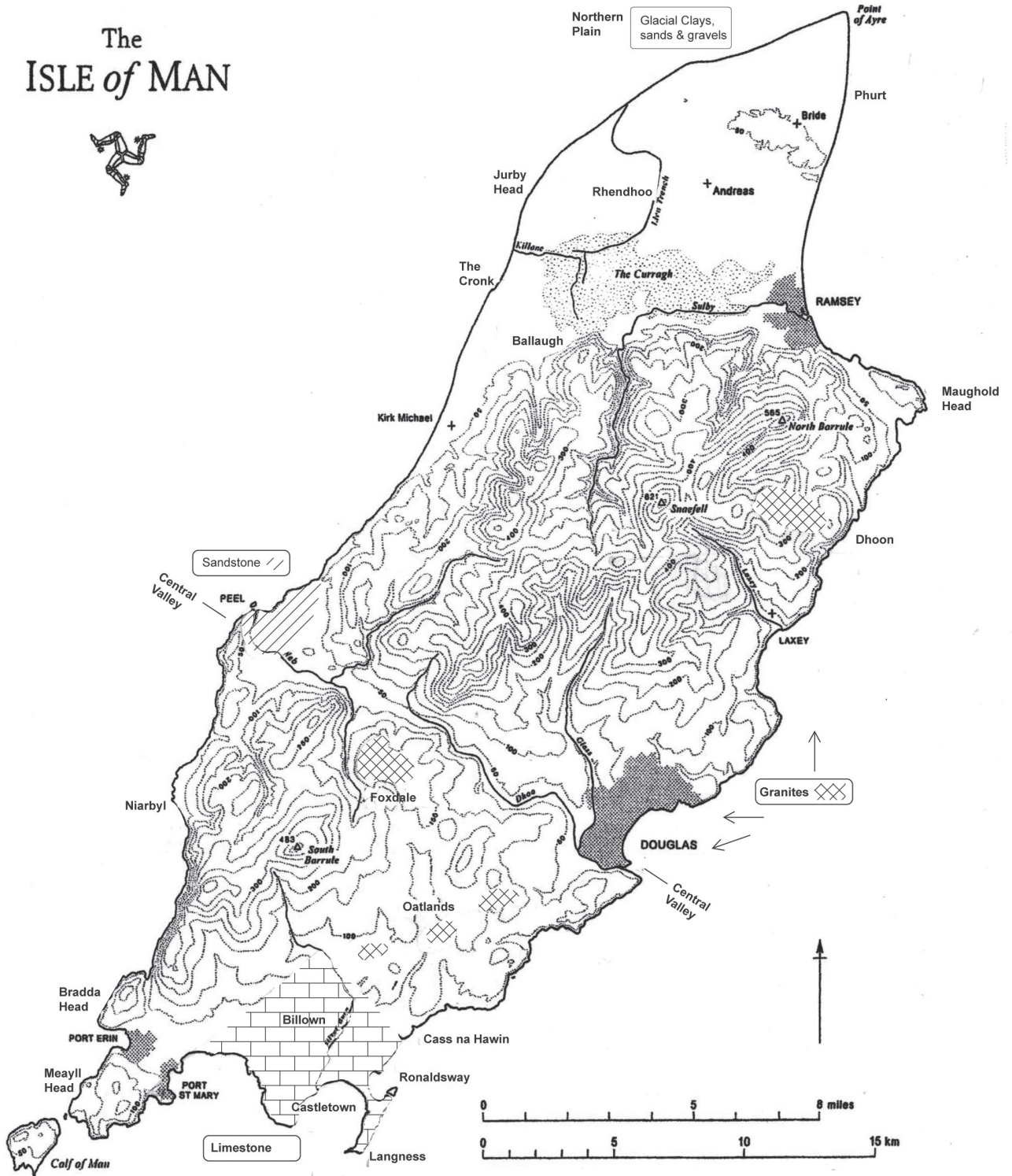


Fig. 2. Map of the Isle of Man showing limestone, sandstone and granitic intrusions. The bulk of the island is formed of the Manx Slate Series. Places mentioned in this section are indicated. Contour lines at 50m intervals. (Map adapted from that in Woodcock 2008 with permission. Drawn by Brian Williams)

the first farmers occupied areas of the east coast where landing places were available (see maps in Chapter 3).

On the east, from Ramsey south to Cass ny Hawin, the Manx Group forms high, rocky coastal cliffs. It appears again in the low rocky peninsula of Langness east of Castletown and on the west coast its rocks extend from Gob ny Creggan Glassey, south of Kirk Michael, to where the red sandstones produce a similarly inhospitable rocky coastline north of Peel. The Manx Group reappear from Peel Hill south to the Meayll peninsula and the Calf of Man, and extend eastward to Port St Mary. These generally inhospitable coasts are broken by extensive sandy beaches and navigable tidal river mouths at Douglas and Peel. On the east coast numerous smaller stream mouths offer more limited landing places, and ready access to a hinterland: Ballure, Port Lewaigue and Port e Vullen east of Ramsey, and Port Mooar, Port Cornaa, Dhoon, Laxey, Garwick, Groudle, Onchan harbour, Douglas, Port Soderick, Port Grenaugh and Cass ny Hawin, all on the east coast. On the west coast, apart from Peel, the Manx Group cliffs are only broken at Glen Maye, Fleshwick and Port Erin.

In the south of the Island the low level limestone area and the surrounding lowland of Manx group mudstones and greywackes offer ready landing places, and easy access to the hinterland, with harbourages sheltered from the prevailing south-westerly winds at Port St.

Mary, Bay ny Carrickey, Castletown (with navigable tidal river mouth) and Derbyhaven.

The coasts of the flat northern glacial lowland are characterised by extensive sandy tidal beaches and easy access to the hinterland. Beaching of vessels on the sands would be easy, but shelter from storms would normally have been better on the eastern Ramsey Bay coast, where there is a navigable tidal river mouth at Ramsey.

During the late glacial and early post glacial periods plant and animal life returned to the Isle of Man, providing the habitat within which man eventually established himself. The melting of the ice sheets produced a rising sea level which affected first the insularity of Ireland from Britain, and later (perhaps even as late as the earliest Manx Mesolithic period) the flooding of the final land-bridge which connected the Isle of Man with Cumbria. In places however the general rising sea level was offset by isostatic uplift of land released from the weight of former ice sheets. Thus around the Manx coasts as well as exposures of submerged peat beds below present sea level, notably at Strandhall, east of Port St Mary (Bruce 1927), Port Cranstal (Phurt), north east of Bride (Phillips 1967) and Ramsey, north shore (Roberts *et al* 2006), tracts of raised beach, most extensively at the Ayres, on the northern coast of the northern plain, attest a post glacial period when the sea level was higher than at present (Roberts *et al* 2006).

**Recent Work on the Changing Natural Environment**  
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### **Introduction**

Pollen analysis from the northern plain, the hill-lands, the central valley, and the Peel embayment has begun to provide evidence for the environment experienced by the first settlers on the Island. This research has provided two main areas of evidence. First, the stratigraphic sequences give an indication of the nature of the deposition sites at different times and thus the range and extent of natural habitats. Secondly, from the pollen curves, the vegetation types both at the sampling sites and in the surrounding area can be inferred. The pollen provides information not only about the characteristics of the natural vegetation but also shows the effects of human activity. A more detailed synthesis of this research will be found in the *New History of the Isle of Man: The evolution of the Natural Landscape* (Chiverrell and Thomas 2006) on which the following paragraphs are based. For details of the radiocarbon dates see Chiverrell *et al* 1999.

### ***The early natural environment and the effects of Mesolithic activity***

The diverse landscape of the Isle of Man and the variety of habitat types would have been important for the hunter-gatherer people who first colonised the Island. By about 9000 years ago a mosaic of woodland, heathland, marshland, bog, grassland, freshwater pools as well as coastal environments such as saltmarsh and mudflats, were all more varied and more extensive than today. A light cover of birch and hazel on the hilltops, would have probably reached almost to the highest summits where climate-induced blanket peat did not form until later periods. On the lower hillslopes, oak, with hazel and elm, developed into dense mixed woodland. In exposed places, as today, the trees would have been sculpted by the high winds. In the lowlands there would have been oak, elm, hazel and alder with lesser representation of birch, pine, and willow. Pine forms quite a significant proportion of the pollen at a few sites and was certainly growing in the northern hills and around the coastline at various times in the mid-Holocene. Alder

would have been growing commonly in wetter areas. Alder pollen often forms the highest proportion of tree species in the lowland pollen diagrams because it was growing on and around the wetland sites. Blanket bog started to develop in some parts of the hills, such as the northern slopes of Beinn y Phott (SC 383865 near Snaefell), around 5000 cal BC initiated by the increase in rainfall around that time, but this bog growth was far from synchronous over the whole upland area of the Island; later on it would have been extended by woodland clearance.

Areas of wetland, prevalent in the lowlands, – both open water and curragh (carr and fen) – would have made travel across land difficult but also increased the range and availability of plant and animal food sources. Similarly, around the coasts, salt marsh, brackish pools and freshwater lakes were present at different times created by the changing relative sea levels and high water tables as drainage became impeded.

It is likely that a wide range of mammals would have been available for the early hunter-gatherers but there are no early fossils that prove the native status of these species (Tomlinson and Pooley 2006). Larger wild mammals, including red deer and perhaps roe deer (Garrad 1978a, Berry and Yalden *unpub*), are likely to have been present in the post-glacial period, having arrived before the last land bridge was finally severed. This severance was sometime near the start of the Holocene, we do not know exactly when but conceivably as late as 8000 cal BC. (Roberts *et al* 2006). No doubt coastal resources would have been important at all periods but there is evidence from only one early midden, at Port St Mary, and that had a later burial inserted into it (Swinnerton 1890 and this volume). The presence of charcoal at the later Mesolithic site of Rhendoo (McKeown, 1994) not only indicates that people were utilising the woodland but also adds to the pollen evidence concerning the range of species used, namely, oak, hazel, alder and willow.

From local evidence, but also by analogy with studies in similar areas around the Irish Sea, it is likely that by the period of the first farmers some landscapes would have already been slightly modified by the Mesolithic hunter-gathering people. Small areas of woodland may have been cleared, sometimes by burning, perhaps to encourage grazing animals. Some trees and shrubs may have been felled for other purposes but this activity was very localised and cleared areas would have regenerated rapidly. Only in the Lhen Trench near Ballachrink does a convincing phase of disturbance to deciduous woodland, with charcoal, disturbance-indicator species such as ribwort plantain and an increase in sedges, grasses and bracken, occur in the pollen record of the later Mesolithic period. Only three or four other pollen cores on the Island actually cover this period, so the evidence is limited.

### **Environmental evidence in the Neolithic period**

An impression of a wheat grain embedded in a pottery sherd from Meayll Hill was the first evidence that wheat was being grown on Man in the Neolithic period (Hyde 1939). Cereal grains preserved in charred form on settlement sites have been studied from very few sites of any period on the Island so far, but useful palaeobotanical work at Billown with associated radiocarbon dating has recently been published (Fairburn 1999, 14-22). The Neolithic levels produced, not only a range of species of charred cereals, but also weeds from the arable fields. The cereals are emmer (*Triticum dicoccum*), hulled six-row barley (*Hordeum vulgare*) and a few grains of naked barley (*Hordeum vulgare* var. *nudum*) from the latest phase. Preservation was relatively poor and only a very few fragments of chaff were found making identification of the wheats problematic. For example, there are only 11 grains and two chaff fragments of emmer from the entire site (Fairburn 1999, Table 2A-C). The weeds included four archaeophytes (ie non-native species introduced by man) (mayweed, black bindweed, corn spurrey and nettle-leaved goosefoot) that occur on the island today but must have been introduced by these early farmers. Hazelnut shells, fruit stones from sloe and hawthorn and seeds from crab apple, rose hips and blackberry, all preserved by charring at Billown, indicate the continued use of wild resources by the Neolithic farmers.

Despite the difficulties of re-worked and intrusive material, there is an important group of radiocarbon-dated grains of barley (*Hordeum vulgare*) from the complex at Billown (Darvill 2001, 14-16 and 2004, 20; Whittle *et al* 2011, 554). The nine dates range from 3776–3651 cal BC to 3290–2928 cal BC (Middle Neolithic). In addition there are seven dated barley grains from later and intrusive material.

Pollen evidence combined with radiocarbon dating also shows how early the first cereal growing may have been on the Island (Innes, Blackford and Davey 2003). For example, samples from near the top of the peat sequence at one site in the Lhen trench (at Ballachrink NX 393002) have produced cereal-type pollen grains, associated with woodland disturbance indicator species with a calibrated date of 4931–4777 cal BC. This is therefore before the elm decline and is the earliest evidence of arable agriculture on the Island, but there are other such early sites around the Irish Sea (O'Connell and Molloy 2001, but see Whittle *et al* 2011, 560). Early arable farming would have been small-scale, probably short-lived, in woodland clearings, most likely in the better drained and easily cleared areas of the Island. It remains to be seen which cultural groupings were carrying out this activity, since at present there is no cultural material associated with this horizon.

The clearance of woodland, probably to create grazing pasture, occurs in the Manx pollen diagrams throughout



the megalith-building period and there is also some archaeological evidence for the use of domesticated animals at the same time. The excavations at Ballaharra produced fragmentary teeth of sheep and cattle (Denston and Allen this volume). Numerous cattle and sheep bones were found 'amongst the food-remains' at the Late Neolithic site of Ronaldsway as well as bones of pigs and birds (Jackson 1947, 146, 159). Unfortunately, despite the underlying limestone geology, the well-drained soils at Billown are acidic and evidence of domesticated animals from the Neolithic period at that site has been lost (Russell and Darvill 1999, 39). There is no clear evidence of when domesticated animals were first brought to the Island - presumably by sea, but from where?

The decline in elm pollen, recorded in pollen diagrams across north-west Europe around the same time as the emergence of Neolithic farming practices, happens on the Island in a similar way, clustering around the few centuries before 3800 cal BC. It occurs sometime after 4100 cal BC at the Cronk where it is accompanied by slight evidence of woodland opening which may be human in origin. In the central valley, at Port y Candas it is shown in peat just beneath a radiocarbon date of c. 3750 cal BC and is recognisable in the core from Greeba Curragh in association with cereal pollen grains and an increase in grasses (with dates above and below this level allowing interpolation to about 3750 cal BC). The central valley does not seem to have been cleared extensively at this time, clearance for both pastoral and arable farming was probably taking place on better-drained gentle hill-slopes away from the marshy areas.

From about 3750 cal BC onwards the removal of woodland is shown to continue, gradually in the Neolithic

and then with more intensity into the Bronze Age (Chiverrell *et al* 2004). All the lowland pollen diagrams show evidence of phases of Neolithic clearance, often with cereal pollen and with indicator species such as ribwort plantain, docks, sorrels, cow-wheat, grasses, bracken and reduction in tree cover. The early clearances would have been followed by natural regeneration, ash is a tree that occurs late in the pollen diagrams and was probably a secondary woodland species. Apart from the increase in the blanket bog in the hill-lands as the climate deteriorated, it appears they remained fairly wooded until the Bronze Age when indications of more widespread clearance are picked up in pollen diagrams from Montpellier mire (SC 361882) and Beinn y Phott.

In the lowlands there is increased waterlogging from the Mid-Holocene, especially in what are more marginal curragh areas, today largely drained. The likely causes of the spread of waterlogging were a combination of higher rainfall and increased runoff from the hills following clearance of woodland. A contributory cause is higher sea levels (to 2m OD) between 4050 and 2050 cal BC which caused the flooding of coastal submerged forest beds at Port Cranstal (Phurt NX 467027) and Strandhall and would have altered and perhaps reduced the extent and range of coastal habitats. The waterlogging must also have affected the choice of location of human activity.

At the time when the megalithic monuments were being constructed the inhabitants of the Island were developing an agricultural-based economy while at the same time continuing to exploit the available natural resources. Being the first people to make a major, permanent impact on their environment, their activities made a substantial contribution towards the development of the present-day landscape.