LEABHARLANN CHOLÁISTE NA TRÍONÓIDE, BAILE ÁTHA CLIATH | TRINITY COLLEGE LIBRARY DUBLIN
Ollscoil Átha Cliath | The University of Dublin

Terms and Conditions of Use of Digitised Theses from Trinity College Library Dublin

Copyright statement

All material supplied by Trinity College Library is protected by copyright (under the Copyright and Related Rights Act, 2000 as amended) and other relevant Intellectual Property Rights. By accessing and using a Digitised Thesis from Trinity College Library you acknowledge that all Intellectual Property Rights in any Works supplied are the sole and exclusive property of the copyright and/or other IPR holder. Specific copyright holders may not be explicitly identified. Use of materials from other sources within a thesis should not be construed as a claim over them.

A non-exclusive, non-transferable licence is hereby granted to those using or reproducing, in whole or in part, the material for valid purposes, providing the copyright owners are acknowledged using the normal conventions. Where specific permission to use material is required, this is identified and such permission must be sought from the copyright holder or agency cited.

Liability statement

By using a Digitised Thesis, I accept that Trinity College Dublin bears no legal responsibility for the accuracy, legality or comprehensiveness of materials contained within the thesis, and that Trinity College Dublin accepts no liability for indirect, consequential, or incidental, damages or losses arising from use of the thesis for whatever reason. Information located in a thesis may be subject to specific use constraints, details of which may not be explicitly described. It is the responsibility of potential and actual users to be aware of such constraints and to abide by them. By making use of material from a digitised thesis, you accept these copyright and disclaimer provisions. Where it is brought to the attention of Trinity College Library that there may be a breach of copyright or other restraint, it is the policy to withdraw or take down access to a thesis while the issue is being resolved.

Access Agreement

By using a Digitised Thesis from Trinity College Library you are bound by the following Terms & Conditions. Please read them carefully.

I have read and I understand the following statement: All material supplied via a Digitised Thesis from Trinity College Library is protected by copyright and other intellectual property rights, and duplication or sale of all or part of any of a thesis is not permitted, except that material may be duplicated by you for your research use or for educational purposes in electronic or print form providing the copyright owners are acknowledged using the normal conventions. You must obtain permission for any other use. Electronic or print copies may not be offered, whether for sale or otherwise to anyone. This copy has been supplied on the understanding that it is copyright material and that no quotation from the thesis may be published without proper acknowledgement.

Cultural Landscape Conservation in the Boyne Valley Archaeological Park, Counties Meath and Louth, Ireland

by

Geraldine Stout

TRINITY COLLEGE
25 JAN 2000
LIBRARY DUBLIN

Submitted for the degree of
Doctor of Philosophy
Department of Geography
Trinity College Dublin
1999

TRINITY COLLEGE
25 APR 2000
LIBRARY DUBLIN
Thesis
5481

Summary

The establishment of the Boyne Valley Archaeological Park in 1987 and its subsequent designation as a World Heritage Property in 1993 were significant steps in landscape conservation in Ireland. For the first time, the state recognised the importance of the cultural content of the landscape (as opposed to the primarily 'natural' landscapes of other National Parks), and the need to conserve it *in toto*. The designated 'core area' is focused on the Neolithic passage tombs of Newgrange, Knowth and Dowth in an area known as the Bend of the Boyne in eastern county Meath, but it also includes 'buffer zones' extending south of the river and north of the main concentration of tombs. Despite the small size of the designated area (3,300ha), it includes Europe's most important collection of megalithic art, a significant concentration of Bronze Age sites, sites traditionally associated with the origin of St Patrick's Christian mission in Ireland, and the site of the Battle of the Boyne (1690), one of Europe's most significant battles.

The proper management of this remarkable area requires a detailed cultural inventory and evaluation to form the basis of a conservation strategy. A combination of landscape archaeology and historical geography provides the necessary framework to undertake such a cultural landscape assessment. This study establishes the importance of these disciplines as a management tool in landscape conservation. On the basis of an historic landuse assessment, conservation priorities have been identified for specific features that are critical to the preservation of landscape evidence for the area's past. This has permitted the preparation of an informed conservation statement for each period in the valley.

A multi-layered, period by period approach is taken in this study. This permits an analysis of the cultural heritage and an understanding of how the landscape was organised and exploited in each period. Cumulatively, it presents an interpretation of how the current landscape evolved. Rural society within the Boyne has ordered itself in differing ways over seven millennia of settlement and this has had a direct bearing on landscape development. The communal enterprise of Neolithic farmers allowed extensive areas of woodland to be cleared, a basic framework of enclosure established and major public monuments to be built. The area continued as a thriving ritual and well populated centre into the Early Bronze Age. Like much of Ireland, the valley experienced a decline in activity in the 'Late Iron Age Lull', yet it was chosen by Patrick (or by his biographers) as the location for the commencement of his Christianising mission in Ireland. Knowth would later become the 'capital' of an Early Christian kingdom. The extended family units of Early Christian society are associated with a relatively dispersed settlement pattern and a mosaic of enclosed areas. In the medieval period the centralised nature of the feudal system produced nucleated settlements focused around a parish or manorial centre. Throughout this period,

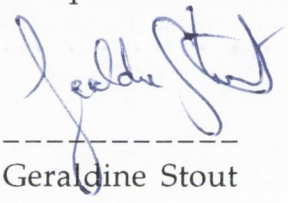
most of the area was in the hands of monastic orders who developed the landscape in a distinctive manner. The Cistercians constructed weirs and mills to exploit the resources of the river Boyne. The medieval nucleated settlement pattern started to break up in the Post-dissolution period and a dispersed settlement pattern emerged in the seventeenth century. This was consolidated after the victory of William III at the Battle of the Boyne which provided a secure foundation for the estate system of the eighteenth and nineteenth centuries. Much of the housing in the area dates from the nineteenth-century and closely mirrors the hierarchical nature of the prevailing. Present landuse trends in the Bend of the Boyne are towards state acquisition and larger farm holdings, while tourism promises to take an increasingly important economic role.

This study identifies key issues relevant to the management of this protected cultural landscape and recommends a number of policy measures to ensure the identification, protection, preservation and presentation of the area's cultural heritage. The Boyne Valley Archaeological Park needs a broader-based management structure, including representatives of all groups who have a stake in the area and co-ordinated by the National Monuments and Historic Properties Service who officially manage the area. At local level, this authority would be administered by an appropriately staffed facility with responsibility for implementing policy.

While the legislation protecting the sites and monuments within the area is broadly adequate, it is not being fully enforced. Illegal farming practices continue and planning authorities permit unsuitable industrial developments within the buffer zone. Commercial pressures continue to threaten the area's archaeological monuments, historic buildings and scenic quality. The National Monuments Acts should be extended to provide legal protection for features built after 1700AD. The dwindling stock of traditional buildings are in particular need of protection; these buildings could also be used as models for modern house construction.

This study draws heavily on the results of an extensive programme of excavation which has greatly increased our knowledge of prehistoric societies. However, the wide-ranging nature of this analysis identifies serious knowledge gaps in the broader settlement history of the area. Future research should include the use of plough-soil archaeology to recover evidence for Mesolithic activity and remote sensing methods to recover traces of rural medieval settlement. The broader settlement history of the area must be presented in brochures, exhibitions and all other relevant literature. Ultimately, the analysis and understanding of the rich heritage of the Bend of the Boyne could permit the history of the Irish landscape to be told in an uniquely comprehensive way and to be effectively presented *in situ* to the general public.

I declare that this thesis has not been submitted as an exercise for a degree at another university, that is entirely my own work and that the library may lend or copy the thesis upon request.



Geraldine Stout

Acknowledgements

I wish to record my thanks to the following persons for their assistance in preparing this thesis:

Professor George Eogan, NUI Dublin, allowed me to assist on his excavations at Knowth as an undergraduate; this was my introduction to the Bend of the Boyne which has been the focus of my research efforts ever since.

My colleagues at Dúchas, The Heritage Service, for their encouragement and support. Mr David Sweetman, Chief Archaeologist, reinforced my attachment to the Bend of the Boyne by involving me with his excavations there. I would like to thank him for this and for allowing me to take the career break necessary to complete this study, Mr Eugene Keane, BVAP Project Director, generously gave of his time to discuss the management of the park. Archaeologists Victor Buckley, Con Manning, Michael Moore, Barry O'Relly and Senior Architect Willie Cumming; archaeologist and editor Tom Condit; Muiris de Butléir and Rob Obbington in GIS; Con Brogan, John Scarry and Tony Roche in the photographic section; Dulra Ó Ríordáin and Librarian Valerie Ingram and her staff.

I would like to acknowledge the assistance of staff in the National Library, National Museum (especially John Murray), National Archive (especially Aideen Ireland) and Royal Irish Academy.

My thanks to my many friends in the Boyne valley for their help and hospitality: in particular the Ó Gibne family of Donore, Cliadhbh, Sinead, Gearóid, Brian; Pauline Fullham of Staleen; Breda Tuite of Tullyallen; Barry Flood of Rossin Anglers; Hugh Gough MMCC of Rossnaree; local poet Susan Connolly, Anne-Marie Moroney, Áine Ní Chairbre and Munich O'Reilly of Drogheda who assisted in the survey of pillboxes along the Boyne. I would especially like to thank Claire Tuffy, Leonsha Lenehan, and Pauline Moore in the Brú na Bóinne Visitor Centre for their warm hospitality.

Thanks also to my fellow researchers Cristóir Mac Cárthaigh, Department of Folklore, NUI Dublin, Micheal O Siochrú, Mark Clinton Lianda D'Auria and Anthony Lynch who helped translate Latin sources.

Dr William Nolan introduced me to unpublished research at NUI Dublin; William Jenkinson, Department of Geography, NUI Dublin, allowed me to consult his unpublished research on the Boyne valley and Hugh Carey, Department of History, Trinity College Dublin, gave me access to his unpublished thesis on Norman Meath.

I would like to thank the staff in the Department of Geography, Trinity College Dublin, especially Eileen Russell, Terry Dunne, Richard Haworth and Dr Mark Hennessy.

My extended family suffered great neglect during the preparation of this thesis and I am deeply grateful for their patience. Thanks also to my sister Marian and her family who minded my children, and to my sister Dr Loretto Lacy who provided much needed funding. I would especially like to thank my husband Matthew and daughters Nóra and Helen for their tolerance. Matthew also typed the manuscript and prepared the illustrations.

I would like to specially acknowledge the help of my mentor and friend Professor Kevin Whelan, Keough-Notre Dame Study Centre, who critically read and re-read drafts of this thesis; his contribution was indispensable.

Finally, I am extremely grateful to my supervisor, Professor F.H.A. Aalen, Department of Geography, Trinity College Dublin, for his years of support and enthusiasm for this project. His work on landscape conservation has been of great inspiration for my own research.

Table of contents

Chapter 1 – Cultural Landscape Conservation: Principles and Practice **1**

A – Introduction 1

B – The concept of cultural landscapes 1

C – Assessment and evaluation of cultural landscapes 4

D – Conservation of cultural landscapes 7

i – Environmental value 7

ii – Cultural/historical value 7

iii – Educational value 8

iv – Recreational value 9

E – Legal measures and administrative structures 10

i – Legislation 10

ii – Development control 14

iii – Management agreements 16

F – The role of the local community in cultural landscape conservation 19

G – Case Study: The Boyne Valley Archaeological Park 21

i – Introduction 21

ii – Legislation and administrative structures 26

H – Summary and conclusions 28

Chapter 2 – The Natural Landscape **30**

A – Introduction 30

B – Geology 33

Glacial history 36

C – Drainage 39

D – Soils 41

E – Climate 42

F – Natural vegetation and wildlife 44

G – Summary and conservation statement 49

Chapter 3 – Prehistoric Land Use in the Bend of the Boyne **51**

A – Introduction 51

B – Mesolithic settlement 51

C – Neolithic landscape 56

i – Pre-tomb Western Neolithic 57

ii – The passage tomb builders 59

Economy 69

Settlements 72

D – Late Neolithic/Early Bronze Age land use 73

Technology 78

Economy 78
E – Middle Bronze Age settlement 79
F – Summary and conservation statement 80

Chapter 4 – Early Historic Land Use in the Bend of the Boyne 87
A – Introduction 87
B – Pre-Christian land-use 87
i – Environmental background 87
ii – Settlements 89
iii – Communications; internal and external 91
iv – Burial practice 96
v – Proto-Historic sources 97
Dindshenchas Erenn 97
Pre-Patrician annals 105
Sagas 106
C – Early Christian land use 106
i – Ecclesiastical sites 106
ii – Geo-political background 113
iii - Ringforts 113
iv – Unenclosed settlement 115
Early Christian settlement at Knowth 115
Souterrains 119
v - Norse encampment 121
D – Conservation and presentation 122
i – The pre-Christian component 122
ii – Early Christian component 123

Chapter 5 – Medieval and Late-medieval land use in the Bend of the Boyne 126
A – Introduction 126
B – The Cistercians: 1142-1539 AD 126
i – Historical background 126
ii – Cistercian granges 129
iii – Mills 134
iv – Fisheries 135
vi – Monastic settlements 136
C – Norman settlement (1169-1539) 142
i – Historical background 142
ii – Early fortifications 143
iii – Manorial settlements 145
D – Augustinian land use 150
i – Historical background 150

ii – Dowth 151
iii – Lougher 152
iv – Donore 154
v – Platin 154
vi – Gilltown 154
E – Conclusions and conservation statement 156
i – The Cistercians 156
ii – The Normans 157
iii – Augustinian settlements 158

Chapter 6 – The Bend of the Boyne in the Seventeenth Century 160
A – Landscape and population 160
i – Introduction 160
ii – The Civil Survey 160
iii – The Down Survey maps 164
iv – The 'Census' of 1660 164
B – The military landscape 166
i – Introduction 166
ii – The Confederacy Wars 1641-1649 166
iii – Landscape and the Battle of the Boyne 1690 172
Battle landmarks 176
Topography and land use 182
Roads 182
Settlements 184
C – Conclusions and conservation statement 189
D – Comparative approach to the management and interpretation of the Battle of the Boyne battlefield: Little Bighorn, Montana 193
Monument designation 193
Management 194
Interpretation 194
The role of the archaeologist 195

Chapter 7 – The Eighteenth-Century Economic Boom 197
A – Introduction 197
B – Estate landscape 198
i – Estate management 198
ii – The Netterville estate 200
iii – The Campbell/Caldwell estate 203
iv – Oldbridge Estate 209
C – Agricultural and Industrial Development 212
i – Introduction 212

ii – Agricultural improvements 213
iii – Milling 215
iv – Flax cultivation 218
D – Communications 219
i – Roads 219
ii – The Boyne Navigation 221
E – The Penal landscape 223
F – Conclusions and conservation statement 226
i – Estates 226
ii – Agricultural and industrial development: mills and kilns 229
iii – Communications 230
iv – Penal landscape 231

Chapter 8 – Buildings in the Nineteenth-Century Landscape 232
A – Introduction 232
B – Nineteenth-century housing, land holding and society 233
i – Economic Background 233
ii – Classification 235
iii – Building typology 239
Mansions 239
Strong farmers' houses 245
Small farms 247
Cottiers/labourers 249
C – Institutional and industrial buildings 250
Ecclesiastical architecture 250
Widows House/Netterville Institute 251
National Schools 252
Watch-house 252
Mills 253
D – Land tenure 254
E – Post-Famine decline and development 255
Public housing 260
F – Conclusions and Conservation statement 260

Chapter 9 – The Modern Landscape 264
A – Introduction 264
B – Colony migration 264
C – The Emergency (1939-45) and the Bend of the Boyne 266
i – Introduction 266
Political background 266
Defence plan 266

Blockhouses 269
ii – Blockhouses on the Boyne 270
Location 270
Morphology 272
Construction 276
Strategy and tactics 276
iii – Conclusions and conservation statement 277
D – Grant-aided landscape change 1950-1990 278
i – Introduction 278
ii – Farm development 279
iii – Impact of farming schemes 283
iv – Conclusion and conservation statement 285

Chapter 10 – The Boyne Valley Archaeological Park: A Cultural Landscape 287
A – The Dynamic Landscape 287
i – Dowth 287
ii – Monknewtown 289
iii – Newgrange 291
iv – Donore village: old and new 294
v – Oldbridge 296
vi – Summary 296
B – The Cultural Landscape 298
Natural environment 298
Ideology 299
Technology 300
Conclusion 300

Chapter 11 – Management Policy for this Cultural Landscape 302
A – Management structure 302
B – Legislation 304
C – Threats 305
D – Protection and mitigation 306
E – Research 308
F – Education and recreation 310
G – Socio-economic issues 312
H – Conclusion 312
Bibliography 314
Appendix 1 – Large tables 333

List of figures

Fig. 1.1	Aalen's model of the creation of a cultural landscape.	2
Fig. 1.2	National Monuments in state ownership and guardianship.	13
Fig. 1.3	REPS uptake, 1997.	18
Fig. 1.4	The Boyne Valley Archaeological Park.	22
Fig. 1.5	Visitor numbers to Newgrange 1980-1998.	25
Fig. 1.6	Hierarchy of managing authorities and organisations in the BVNP.	27
Fig. 2.1	Map showing the physical regions of Ireland with study area inset.	31
Fig. 2.2	Map showing the eastern triangle with case area inset.	32
Fig. 2.3	Detailed geological map of the Bend of the Boyne.	34
Fig. 2.4	A) The Tullyallen glaciation. B) Glacial features in the lower Boyne valley.	37
Fig. 2.5	Soils in the Bend of the Boyne.	40
Fig. 2.6	Topography and elevations of the lower Boyne Valley.	43
Fig. 2.7	NHAs in the Bend of the Boyne.	45
Fig. 3.1	Extent of archaeological excavations in the Bend of the Boyne.	52
Fig. 3.2	A) Extent of tillage in the Boyne Valley Archaeological Park *c.*1990. B) Distribution of finds in the townland of Clonlusk. C) Distribution of finds in the townland of Oldbridge.	55
Fig. 3.3	Distribution of passage tombs.	61
Fig. 3.4	Stone settings within the tomb at Townleyhall II.	63
Fig. 3.5	The various sources of non-local stone used in the passage tombs.	70
Fig. 3.6	Late Neolithic/Bronze Age sites in the Boyne Valley.	74
Fig. 4.1	The location of Ballyboy lake and Crewbane bog.	88
Fig. 4.2	Beehive quern from the river Boyne below Newgrange.	90
Fig. 4.3	Ground plan and sections of the 'Iron Age' features at Knowth.	92
Fig. 4.4	Locations where Roman material has been discovered.	93
Fig. 4.5	Claudius Ptolemaius's 'map' showing the river Bovinda (Boyne).	95
Fig. 4.6	The Slighe Midluachra and other proto-historic sites.	101
Fig. 4.7	Conjectural map of places mentioned in *Dindshenchus Erenn.*	101
Fig. 4.8	Beranger's (1775) depiction of the Bishop's or Erc's tomb.	108
Fig. 4.9	Early Christian sites in the Bend of the Boyne.	111
Fig. 4.10	Kingdoms in the vicinity of the Bend of the Boyne *c.*800 AD.	114
Fig. 4.11	A) Plan and section of Knowth ringfort. B) Plan and section of Newgrange ringfort.	116
Fig. 4.12	Early Christian Knowth (after Eogan, 1991).	118
Fig. 4.13	The distribution of souterrains with beehive chambers in Ireland.	120
Fig. 5.1	The landed possessions of Mellifont Abbey.	127
Fig. 5.2	Medieval holdings and settlements in the Bend of the Boyne, *c.*1540.	130
Fig. 5.3	Plan of Knowth grange buildings and earthworks.	132

Fig. 5.4	The Boyne coracle.	137
Fig. 5.5	A) 'Town' townlands in Ireland.	
	B) Townland names in the Dunsany region of county Meath.	
	C) Townland names in the Bend of the Boyne.	139
Fig. 5.6	Towerhouses in the area of the Pale.	141
Fig. 5.7	A) Mottes in Ireland with the lordship of Meath.	
	B) Medieval defences in the lower Boyne Valley.	144
Fig. 5.8	Visible remains of the medieval manor of Dowth.	149
Fig. 5.9	Medieval settlement at Lougher based on the cartularies.	153
Fig. 6.1	Land and settlement in the Bend of the Boyne, 1654.	162
Fig. 6.2	Detail of Down Survey map of Duleek Barony.	165
Fig. 6.3	A) Old English names recorded as being 'Irish' in 1660.	
	B) Irish (which include Old English) in the Bend of the Boyne.	167
Fig. 6.4	A) The confederate wars in Ireland, 1641-53.	
	B) Confederate forces advance on Drogheda.	
	C) Map of properties associated with the Rebellion of 1641 – 1649.	169
Fig. 6.5	Battle of the Boyne 1690.	175
Fig. 6.6	Battle of the Boyne 1690, detail.	177
Fig. 6.7	Battle of the Boyne 1690, engraving (Theodore Mass).	179
Fig. 6.8	Detail of Oldbridge from the Battle of the Boyne (Theodore Mass).	181
Fig. 6.9	Battle of the Boyne 1690, oil painting (Jan Wyck).	183
Fig. 6.10	Battle of the Boyne 1690, oil painting (DeHooghe).	185
Fig. 6.11	Battle of the Boyne 1690 (after Storey, 1693).	187
Fig. 7.1	Gentlemen's seats', 1785 from Vallancey's 'Royal map of Ireland'.	199
Fig. 7.2	Reconstruction of the Netterville estate in the eighteenth-century.	201
Fig. 7.3	Detail of mansion at Newgrange from map of 1781.	205
Fig. 7.4	Eighteenth-century features in Newgrange from Registry of Deeds.	207
Fig. 7.5	Eighteenth-century features in Oldbridge based on paintings.	210
Fig. 7.6	Oldbridge estate in 1746, oil painting by Joseph Tudor.	211
Fig. 7.7	Engraving of Oldbridge House in 1778 by Paul Saudby.	214
Fig. 7.8	Mills in the Bend of the Boyne.	216
Fig. 7.9	Spinning wheels in counties Louth and Meath in 1796.	220
Fig. 7.10	The lower Boyne navigation.	222
Fig. 7.11	The Penal church in the vicinity of Donore.	225
Fig. 8.1	Landuse and ploughmen's and herds' houses in the Boyne valley	234
Fig. 8.2	Bar chart showing house valuations in the Bend of the Boyne.	238
Fig. 8.3	Nineteenth-century housing in the Boyne valley.	240
Fig. 8.4	The main landowners in the Bend of the Boyne.	241
Fig. 8.5	Mansions and related buildings mentioned in the text.	243
Fig. 8.6	Surviving nineteenth-century housing stock in the Boyne valley.	244

Fig. 8.7 Strong farmers' houses mentioned in the text. 246
Fig. 8.8 Small farms and cottier/labourers' houses mentioned in the text. 248
Fig. 8.9 Land holding in Balfeddock townland. 256
Fig. 8.10 Population and house decline in the Bend of the Boyne 1841-1901. 258
Fig. 8.11 Late nineteenth-century labourers' cottages in the core area. 261
Fig. 9.1 Housing in the 'core area' of the Boyne Valley Archaeological Park. 265
Fig. 9.2 Defence plan for Eastern Command during the Emergency. 268
Fig. 9.3 A) Distribution map of pillboxes along the main line of resistance
B) Pillboxes within the Bend of the Boyne. 271
Fig. 9.4 Plans of blockhouses in the Bend of the Boyne. 273
Fig. 9.5 Pillbox firing points. 275
Fig. 9.6 Newgrange House and farm 1781-1991. 282
Fig. 9.7 The impact of farm development schemes 1950-1990. 284
Fig. 10.1 Model of landscape development in Dowth. 288
Fig. 10.2 Model of landscape development in Monknewtown. 290
Fig. 10.3 Model of landscape development in Newgrange. 292
Fig. 10.4 Model of landscape development in Donore. 295
Fig. 10.5 Model of landscape development in Oldbridge. 297
Fig. 11.1 Proposed management structure 303
Fig. 11.2 Suggested house styles for future building. 307

List of tables

Table 1.1 Townlands in the Boyne Valley Archaeological Park. 23
Table 3.1 Passage tombs in the Boyne Valley Archaeological Park. 60
Table 3.2 Late Neolithic/Early Bronze Age sites in the Archaeological Park. 73
Table 4.1 Frequently used topographical terms in *Dindshenchas Erenn* 98
Table 4.2 Sites mentioned in *Dindshenchus* for *Brug* . 98
Table 4.3 Early Christian ecclesiastical sites in the Bend of the Boyne. 123
Table 4.4 Ringforts in the Bend of the Boyne. 124
Table 4.5 Souterrains in the Bend of the Boyne. 125
Table 5.1 Places in the Bend of the Boyne mentioned in medieval records. 128
Table 5.2 Agricultural statistics for the Bend of the Boyne *c.*1540. 134
Table 5.3 Settlement features in the Bend of the Boyne *c.*1540. 156
Table 5.4 Anglo-Norman sites in the Bend of the Boyne. 158
Table 6.1 Agricultural statistics for the Bend of the Boyne, 1654. 163
Table 6.2a Population from the Census of Ireland 1660 166
Table 6.2b Archaeological finds from the Boyne battlefield at Oldbridge. 180
Table 6.3 Features in the Bend of the Boyne mentioned in the Civil Survey. 189
Table 6.4 The Bend of the Boyne associated with the rebellion of 1641. 190
Table 6.5 Features associated with the Battle of the Boyne, 1690. 192

Table 7.1 Surviving eighteenth-century buildings on three estates. 229
Table 7.2 Eighteenth-century mills in the Bend of the Boyne. 229
Table 7.3 Penal monuments in the Bend of the Boyne. 230
Table 8.1 Thompson's classification of rural society in county Meath, 1802. 236
Table 8.2 Population in the Bend of the Boyne 1841-1911. 257

Appendix 1 – Large tables
Table 8.3 Mid nineteenth-century houses and holdings. 333
Table 9.1 Farm developments, 1950-1990. 347

CHAPTER 1
CULTURAL LANDSCAPE CONSERVATION: PRINCIPLES AND PRACTICE

1A Introduction

This chapter introduces the basic concepts and concerns of the study. First, the concept of a cultural landscape is examined (1B), along with methods of cultural landscape assessment (1C) and the value systems which drive conservation processes (1D). An outline is then provided of the development of 'protected landscapes' and the legal and administrative structures deployed in their management (1E). The role of local communities, particularly the farmer, is examined next and the broad interrelationships of landscape conservation and sustainable rural development (1F). The discussion of these issues is largely based on a review of international literature relating to cultural landscape conservation and provides a broad context in which to critically examine the Boyne Valley Archaeological Park or 'Protected Area' (1G), to assess the present approach to its conservation and to argue for an integrated conservation strategy which is based on an historic landuse assessment combining the disciplines of historical geography and landscape archaeology.

1B The concept of cultural landscapes

The original natural landscape of the world has been progressively modified into cultural landscapes in a manner described by Carl Sauer, an influential early figure in the field of cultural geography:

> Cultural landscape is fashioned out of a natural landscape by a culture group. Culture is the agent, the natural area is the medium, the cultural landscape the result. The natural landscape supplies the materials out of which the cultural landscape is formed. The shaping force lies in the culture itself.[1]

Current landscapes reflect this dynamic interface between natural and cultural systems and are a material expression of the links between people and their environment.[2] In Aalen's model the cultural landscape is represented as the product of a dynamic interaction between cultural components encompassing social organisation, technology and ideology, and the natural environment encompassing bedrock, relief, climate, soils and vegetation (fig. 1.1).[3]

---

1. C. Sauer, 'The morphology of landscape' in *Publications in Geography*, ii (1925), pp 11-54, see p. 46; M. Williams, 'The relations of environmental history and historical geography' in *Jn. Hist. Geog.*,xx (1994), pp 3-21, see p. 10 .

2. H. Plachter and M. Rossler, 'Cultural landscapes: reconnecting culture and nature' in B. Droste, H. Plachter and M. Rossler (ed.), *Cultural landscapes of universal value* (Stuggart 1995), pp 15-18.

3. F. Aalen, 'The Irish rural landscape: synthesis of habitat and history' in F. Aalen, K. Whelan and M. Stout (ed.), *Atlas of the Irish rural landscape* (Cork, 1997), pp 4-30, see p. 6.

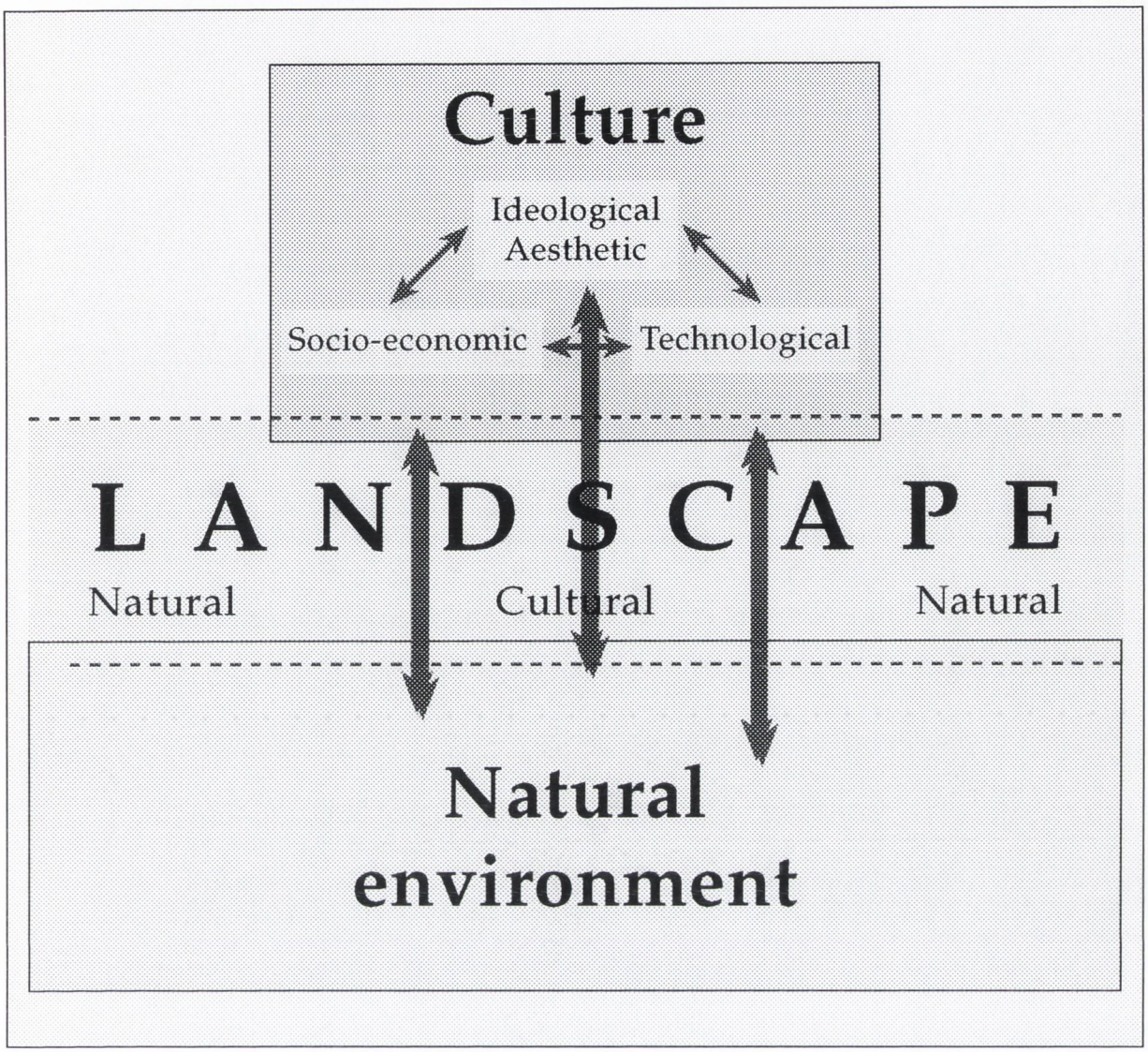


Fig. 1.1 In Aalen's model the cultural landscape is represented as the product of a dynamic interaction between cultural components that include social organisation, technology and ideology, and the natural environment encompassing bedrock, relief, climate, soils and vegetation (After Aalen, 1997).

Current landscapes are a legacy from the past, maturing over lengthy periods of prehistoric and historic time.[4] Their histories have a spatial or landscape manifestation,[5] and their historical interest lies in the accumulation of features which are the product of different land uses at different times. These historical remains embedded in our landscapes provide valuable information concerning the evolution of settlement and landuse, resulting in a 'history on the ground'.[6] There are, for varied reasons, marked regional and local differences in the quantity and quality of historical features surviving in the landscape. In certain areas, however, the 'outdoor archive' provides an eloquent long-term record of human endeavour, including events and processes which are otherwise poorly recorded in conventional documentary historical sources.[7]

There is great diversity in global cultural landscapes particularly when one looks at the properties in the World Heritage List which range from sacred groves in Ghana to the gold fields of the Yukon.[8] As part of international initiatives to preserve the world's cultural heritage, debate has focused on the need to identify and protect outstanding cultural landscapes. The widespread growth of interest in landscape study and management has unintentionally given rise to a confusing array of definitions and nomenclature. The Council of Europe defines *heritage landscapes* in the Grenada Convention (1985):

> The combined works of man and nature, being areas which are partially built upon and sufficiently distinctive and homogenous to be topographically definable and are of conspicuous historical, archaeological, artistic, scientific, social or technical interest.[9]

Distinctive tracts of such socially valued space can be called cultural landscape areas.[10] UNESCO's World Heritage Convention, conceived to establish 'an effective system of collective protection of the cultural and natural heritage', originally considered cultural landscapes as 'mixed sites' and by 1992 had adopted a set of criteria for their evaluation. According to the UNESCO World Heritage Convention (1992):

---

4. *Ibid.*

5. P. Duffy, 'Locality and changing landscape: geography and local history' in R. Gillespie and M. Hill (ed.), *Doing Irish local history: pursuit and practice* (Belfast, 1998), pp 24-46, see p. 28.

6. P. Coones, 'The unity of landscape' in L. Macinnes and C. Wickham-Jones (ed.), *All natural things: archaeology and the green debate* (Edinburgh, 1992), pp 22-40, see p. 32.

7. A. Fleming, 'Total landscape archaeology – dream or necessity' in F. Aalen (ed.), *Landscape study and management* (Dublin, 1996), pp 81-92, see pp 81-2.

8. Droste, Plachter and Rossler (ed.), *Cultural landscapes*, pp 80-374.

9. Council of Europe, *Convention for the protection of the architectural heritage of Europe* (European Treaty Series no. 121, Granada, 1985).

10. Council of Europe, *Recommendation of the committee of ministers to member states on the integrated conservation of cultural landscape areas as part of landscape policies* (Strasbourg, 1995); T. Darvill, 'European heritage and the recognition of cultural landscape areas' in Aalen (ed.) *Landscape study*, pp 173-181, see p. 173.

> Cultural landscapes reflect the combined works of nature and man and are illustrative of the evolution of human society and settlement over time, under the influence of the physical constraints and opportunities presented by their natural environment and of successive, social, economic and cultural forces, both external and internal.[11]

A 1993 study defined landscapes which contain superimposed strata of several periods and provide valuable evidence for changing or continuous patterns of landuse within a single area as relict cultural landscapes.[12] In 1995, the Council of Europe's group of experts defined cultural landscape as:

> The formal expression of the numerous relations existing in a given period between the individual or a society and a topographically defined territory, the appearance of which is the result of the action, over time, of natural and human factors and of a combination of both.

These definitions all stress the dynamic nature of cultural landscape and its tendency to be re-modelled, re-cycled and transformed with changes in landuse and settlement. They also recognise the processes – environmental, locational, social – that lead to the shaping of landscape. They do not, however, deal adequately with the nature of survival and the incompleteness of the physical remains as landscapes continue to evolve.

Finally, it must be acknowledged that the them 'cultural landscape' is highly value-laden and covers a variety of complex issues associated with symbolic meaning and personal perspective. The approach taken in this thesis is derived from historical geography and informed by the authors own archaeological background. This thesis is, therefore, concerned with investigating the material data within the area of the Boyne Valley Archaeological Park rather than exploring different aspects of their meaning.

1C Assessment and evaluation of cultural landscapes

Landscape as an object of study is shared by many disciplines including archaeologists, historical geographers, ecologists, landscape architects and cultural anthropologists and hence diverse approaches are currently deployed in landscape description, documentation and interpretation.[13] Particular disciplines approach an evaluation in differing ways. Most support an integrated approach to landscape assessment because of its complex, multi-faceted nature. The difficulty lies in identifying an approach which recognises the unity of a cultural environment and the multifarious changes taking place within it, and is sufficiently comprehensive to inform and guide landscape management.

The Countryside Commission (UK) has devised a methodology of landscape assessment for identifying the character of landscapes with planning, management and designation

---

11. UNESCO, *Intergovernmental committee for the protection of the world cultural and nature heritage operational guidelines for the implementation of the World Heritage Convention* (WHC/2, Paris, 1994); J. Aitchison, 'The World Heritage Convention: cultural sites and landscapes' in *Landscape study*, pp 183-93, see pp 188-90; H. Cleere, 'Cultural landscapes as world heritage' in *Conservation and management of archaeological sites*, i (1995), pp 65-8, see p. 65.

12. T. Darvill, C. Gerrard and B. Startin, 'Identifying and protecting historic landscapes ' in *Antiquity*, lxvii (1993), pp 563-74, see pp 564-5.

13. F. Aalen, 'Approaches to the study and management of the landscape' in Aalen (ed.), *Landscape study*, pp 1-12, see pp 3-5.

purposes in mind.[14] This approach is systematic and structured and has been used on a variety of scales, from the national/regional, down to district/parish and site. This involves initial planning and paper study, followed by a field survey which focuses on the visual quality of the landscape character using record sheets. The process is designed to identify 'character areas'; it is more concerned with the overall composition of different landscapes than with individual components such as the archaeological, historical features and natural habitats.[15] This results in qualitative observations which emphasise the visual aesthetic quality of areas more than their cultural and historical associations; this technique is useful for providing a national picture of distinct regions but is less helpful for evaluating individual protected landscapes.

Aware of the need to incorporate an historical dimension into landscape character assessments, Historic Scotland have developed a methodology to input information about the built heritage into landscape databases using Geographical Information Systems (GIS). Their Historic Landscape Assessment (HLA) project allows priorities to be drawn within wider landscape management policy which gives proper weight to the historical dimension of the landscape.[16]

Cultural landscape evaluation can and should operate on the principle that the landscape preserves the evidence of human history in monuments, buildings and past landuse traces. Rather than the largely aesthetic evaluation adopted by the Countryside Commission, this historical approach brings together the separate strands of cultural heritage and will help identify and retain valuable landscape elements. Landscape archaeology and historical geography marry well in providing this holistic approach.[17] Landscape archaeology with its emphasis on field evidence provides a long term sequential record of features in the landscape. Historical geography makes sense of the pattern of these features in the past and helps to determine the processes underpinning their making. It deepens the understanding of specific landscapes by concentrating attention upon the interrelationships of the various components and by facilitating the use of additional, non-landscape evidence within precise and meaningful historico-geographical contexts.

Historical geographers have contributed to the debate on the place of humans in nature and their writings have been concerned with the modification of natural landscapes by human culture to produce cultural landscapes.[18] In the Netherlands, where landscapes are deeply humanised, landscape studies have often adopted a historico-geographical approach. For instance, historical geography acted as the central, integrating discipline in an examination of the cultural landscape in the

14. Countryside Commission, *Landscape assessment guidance* (CCP423, Cheltenham, 1993); P. Lucas, *Protected landscapes: a guide for policy-makers and planners* (London, 1992), pp 50-3.

15. Duffy, 'Locality and changing landscape, p. 26.

16. L. Dyson-Bruce, *Historic Lanscape Assessment* (Edinburgh, 1999).

17. Coones, 'The unity of landscape', p. 35.

18. Williams, 'Environmental history and historical geography', pp 10-11.

Drenthe Province, examining settlement and agriculture from prehistory to the seventeenth century.[19] This integrated research offers a longer time-perspective and is essential when re-constructing the historic landscape for each period where data exist in physical and documentary form. The theoretical structure of landscape archaeology benefits by a combination of historical and geographical perspectives.[20]

The importance of incorporating documentary evidence and other historical sources into landscape assessment has been demonstrated in the study of rural settlement in Scotland.[21] Undertaken by Historic Scotland,[22] this study centred on the preservation and management of the extensive, well preserved remains of medieval and later rural settlement in Argyll and Ayrshire which were under threat from afforestation. It considered how features could be singled out for preservation. The role of the settlement historian is crucial in aiding the selection process; selection should be made from a position of knowledge: a disciplined historical approach can lead to a better appreciation of the overall pattern of settlement and the process of change. The process of documentary research and publication also aids the selection of sites which should be treated as historical monuments because they are richly documented. The wealth of documentary material should allow the historian to make a useful contribution to the task of formulating strategies for the preservation and management of rural settlement. The surviving evidence can be utilised to establish the territorial units within which society and the economy operated and to suggest the processes of settlement change. Such evidence can also assign the relative standing of places in the settlement hierarchy.[23]

The interpretation of observed temporal and spatial patterns of human impact on landscape development can also be viewed in terms of underlying ecological and sociological processes which can achieve effective preservation in the future.[24] A recurrent theme in landscape management is the preservation and maintenance of traditional cultures in the future. Before any conservation takes place, it is considered essential to document present day, land use practices which influence ecological patterns. There has been greater acknowledgement of the importance of past human activity as a fundamental force in the structure and ecology of landscape.[25]

---

19. J. Vervloet, J. Renes and T. Spek, 'Historical geography and integrated landscape research' in Aalen, *Landscape study*, pp 112-22, see pp 117-9.

20. Fleming, 'Total landscape archaeology' in Aalen, *Landscape study*, pp 82-83.

21. M. Bangor-Jones, 'The incorporation of documentary evidence and other historical sources into preservation and management strategies' in R. Hingley (ed.), *Medieval or later rural settlement in Scotland* (Edinburgh, 1993), pp 36-42.

22. Historic Scotland is the Scottish equivalent of Dúchas, The Heritage Service, in Ireland.

23. *Ibid.*, p. 7.

24. H. Birks, 'Introduction' in H. Birks, P. Kaland, M. Dagfinn. (ed.), *The cultural landscape: past, present, future* (Cambridge, 1988), pp 7-8.

25. G. Lambrick, 'The importance of cultural heritage in a green world: towards the development of landscape integrity assessment' in Macinnes and Wickham-Jones (ed.), *All natural things*, pp 105-126, see p. 106.

Traditional practices of land use rather than modern developments are, however, viewed as the most sustainable approach to landscape conservation. In Britain, traditional methods of managing hay meadows and woodland management are being encouraged in order to aid conservation.[26]

1D Conservation of cultural landscapes

The term conservation is applied here to the dynamic process of protection and active management of elements within the landscape.[27] The motivating forces behind landscape conservation are wide ranging. Protected landscapes have environmental, cultural, archaeological, historic, aesthetic, academic, educational, recreational and economic value. In this discussion of the principal conservation mechanisms I seek to provide a background for those used with in the Park area, rather than attempting a critical review of the value *per se*. Nonetheless, the underlying assumption of this entire thesis is that conservation of the cultural landscape is an inherently good objective. Their conservation can bring a range of benefits and services.[28] The main forces for landscape conservation – environmental (i), cultural/historic (ii), educational (iii), recreational (iv) – are discussed below.

1Di – Environmental value The creation of the world's first national parks in America in the late nineteenth century was motivated by a desire to preserve the wilderness of the Western frontier which was rapidly disappearing under government policies which encouraged rapid settlement and exploitation of America's rich natural resources. In 1872 Yellowstone was designated the world's first national park; its successful establishment inspired rapid expansion of the park concept. By Yellowstone's centennial, there were over 1,000 national parks in the world.[29] These are relatively large natural areas, largely untouched by human occupation which were to be reserved from settlement or sale. In parallel with these developments in the US, a revolutionary process of economic change in Europe had forced an evaluation of its environmental resources. However, the European debate has focused on the threat to the man-made rather than the natural heritage because of the increasing awareness of the role of human influence in the form and development of European landscapes.

1Dii – Cultural/historical value Archaeological resources internationally have become depleted with an accelerating rate of destruction.[30] The traditional cultural landscape of north-west Europe is rapidly dissolving as a result of changes towards

---

26. K. Kirby, 'Conservation in British woodland' in Birks, *et al.* (ed.),*Cultural landscape*, pp 79-89, see pp 82-5; J. Hughes and B. Huntley, 'Upland hay meadows in Britain: their vegetation, management and future' in Birks *et al.* (ed.),*Cultural landscape: past, present, future*, pp 91-110, see pp 107-8.

27. B. Green, *Countryside conservation: the protection and management of amenity ecosystems*, 2nd ed. (London, 1985).

28. *Ibid.*, pp. 8-9, 15-6.

29. P. Wild, *Pioneer conservationists of western America* (Montana, 1979), p. 1; P. Lucas, *Protected landscapes: a guide for policy-makers and planners* (London, 1992), pp 3-4.

30. Council of Europe, *European Convention on the Protection of the Archaeological Heritage* (Strasbourg, 1966), p. 2; G. Cooney, 'The archaeological endowment' in J. Feehan (ed.), *Environment and development in Ireland* (Dublin, 1992), pp 70-80, see pp. 75-7..

intensive modern agriculture or silviculture. The urge to take control of future development has been fired by the threat posed to distinct cultural landscape areas within Europe by the growing trend towards standardisation of culture.[31] The cultural content of the landscape is now seen as paramount in Europe. The need to conserve our cultural heritage is considered essential to a knowledge of human history. It is valued as a precious component of communal, national and international identity. The Council of Europe has argued that this heritage constitutes:

> an irreplaceable expression of the richness and diversity of Europe's cultural heritage, [which] bears inestimable witness to our past and is a common heritage of all Europeans. It is a source of European collective memory containing vital messages for today and future generations; a system of cultural references, improving the urban and rural environment and thereby fostering the economic, social and cultural development of states and regions and enhancing a connection with place.[32]

A select number of areas around the world have been considered by UNESCO to be of outstanding global value as humanity's cultural record. They provide 'evidence of past land uses and traditional practices, exemplifying the sustainable use of resources on which the future of the world depends'.[33]

The role played by historical places in the construction of national identities in Ireland has been recently highlighted. People attach meanings to the environment and engage in different activities in a specific environment. Places are therefore socially valued – symbolic of values, experiences and emotions which are considered important. Historical places play a role in the maintenance of national identities, since national identity may be conceptualised as a form of group identity. An initial pilot study indicated that a sense of history was highly valued by Irish people and that there were four particular places – Newgrange, Clonmacnoise, Glendalough and Trinity College – which made people proud to be Irish and were perceived to be typical of the different characteristics of Ireland.[34]

1Diii – Educational value The educational value of protected landscapes is viewed as a resource of considerable importance. The policy of the National Park Service in the United States is strongly founded on public access and a genuine democratic

---

31. F. Aalen, 'The rural landscape: change, conservation and planning' in F. Aalen, (ed.) *The future of the Irish rural landscape* (Dublin, 1985), pp 1-25; J. Meeus, M. Wijermans and M. Vroom, 'Agricultural landscapes in Europe and their transformation' in *Landscape and Urban Planning*, xviii (1990), pp 289-352.

32. Council of Europe, *Convention For The Protection Of The Architectural Heritage Of Europe* (Strasbourg, 1985), p. 2; Council of Europe, *European Convention on the Protection of the Archaeological Heritage* (Valetta, 1992), p. 2; T. Greeves, 'Reclaiming the land: why archaeology is green' in Macinnes and Wickham-Jones (ed.) *All natural things*, pp 14-21, see pp 6-17.

33. S. Tictchen, 'On the construction of outstanding universal value' in *Conservation and Management of Archaeological Sites*, i (1996), pp 235-42, see p. 236.

34. P. Devine-Wright and E. Lyons, 'Remembering pasts and representing places: the construction of national identities in Ireland' in *Jn. Environ. Psych.*, xvii (1997), pp 33-45, see p. 35.

desire to provide intellectual access through interpretation. Amongst the points raised in its main policy document are the use of the park for educational purposes by universities and high schools and the provision of educational facilities for this purpose.[35] The visitor is thereby exposed to an elective education and gains first hand experience of the landscape itself. As the great park interpreter Freeman Tilden reminds us, 'here..., the visitor, meets the thing itself'. [36]

The educational approach of the US National Parks embraces interpretation in order to raise awareness. A similar situation exists in Europe; in Bavaria, for instance, the educational duty is enshrined in Bavarian nature conservation law and educational facilities are provided for all age groups in the Bavarian Forest National Park.[37] At a more academic level, relict landscapes contain large-scale evidence for patterns of successive adaptation and change by human communities. They allow themes such as burial, settlement, economy, symbolism and use of space to be explored chronologically while parameters of topography and geographical setting remain relatively stable.[38]

1Div – Recreational value Landscapes are being protected for their supreme amenity value. A founding principle of the US National Park Service (founded in 1916) was that national parks were set aside for the 'observation, health and pleasure of the people'.[39] The recreational value of protected landscapes is becoming more apparent in Europe as the public enjoyment of the countryside grows apace in importance. This is recreation in a physical sense but also 're-creation' in terms of inspirational and spiritual values.[40] The recent preparation of a recreation strategy for the Mournes in county Down has highlighted the significance of landscape resources as a fundamental opportunity for the continued development of recreation activities. This report stresses the need for an integrated approach to environmental resource development based on a commonalty of purpose between rural development and landscape conservation.[41]

---

35. H. Albright, *The birth of the National Park Service: the founding years, 1913-33* (Utah, 1985), p. 71.

36. F. Tilden, *Interpreting our heritage*, 3rd ed. (Chapel Hill, 1977), p. 3.

37. L. Laux, 'National Parks and education' in F. O'Gorman, T. Bryson and B. Green (ed.), *Tourism and protected areas; final report of the fifth European training seminar for managers of protected areas* (Dublin, 1997), p. 3.

38. Darvill, Gerrard and Startin 'Protecting historic landscapes', pp 567-8.

39. Albright, *Birth of the National Park Service*, p. 69.

40. Lucas, *Protected landscapes*, p. 29.

41. M. Murray and J. Greer, 'Prized landscapes and recreation policy in Northern Ireland: the Mournes example' in *Ir. Geog.*, xxiii (1990), pp 43-9, see p. 47; K. Mawhinney, 'Recreation' in D. Gillmor (ed.) *Irish resources and land use* (Dublin, 1979) pp 196-225; R. Buchanan, 'Landscape' in J. Cruickshank and D. Wilcock (ed.), *Northern Ireland: environment and natural resources* (Belfast, 1982), pp 265-89.

1E Legal measures and administrative structures for protecting landscapes

Management of protected landscapes has involved a combination of legislation, designation, development controls and management agreements.

1Ei – Legislation The World Conservation Union (IUCN) has stressed the need for specific legislation to authorise establishment and management of protected landscapes.[42] The laws setting up the first national park (Yellowstone National Park in the US) was passed in 1872. Subsequently, the National Park Service, another American creation, was founded in 1916 under the Woodrow Wilson administration and the Department of the Interior. The new agency adopted a multi-disciplinary approach to managing the parks and encouraged other agencies to become involved such as the Geological Survey, Biological Survey and Corps of Engineers. The administrative policy of the Service was based on three broad management principles: first that the national parks must be maintained in absolutely unimpaired form for the use of future generations; secondly, they are set aside for the use, observation, health and pleasure of the people; thirdly, the national interest must dictate all decisions affecting public or private enterprise in the parks.[43]

There is no general act governing National Parks in Ireland. The only legal framework is the Bourn Vincent Memorial Park Act of 1932 which legalised the take-over by the nation of Muckross estate in county Kerry as a National Park. This act specified that the property was given to the nation for the purposes of a 'National Park' (section 5) and that the 'management and control' was vested in the Commissioners of Public Works (section 11). The park was to be used for the purposes of 'recreation and enjoyment' (section 14). This section of the act made further provision for the making of 'bye-laws for regulating and controlling the use and enjoyment of the park by the public'.[44]

The National Parks and Access to the Countryside Act (1949) provided the foundation for the British system of protected areas, both for landscape and nature conservation. Legislation in England and Wales assigns responsibility for identification of areas for special protection to the government-appointed Countryside Commission.[45] These are currently identified under three titles; National Parks, Areas of Outstanding Natural Beauty (AONBs) and Heritage Coasts.

The World Heritage Convention concerning the Protection of the World Cultural and Natural Heritage was adopted at the General Conference of UNESCO in 1972.

---

42. P. Lucas, *Protected landscapes: a guide for policy-makers and planners* (London, 1992), p. 55.

43. Albright, *Birth of the National Park Service*, pp 43, 68-80.

44. Bourn Vincent Memorial Park Act, number 31 of 1932; Statutory instruments S.I. No. 234 of 1971 Bourn Vincent Memorial Park Bye-laws made by the Commisioners of Public Works; See also *Killarney National Park: management plan* (Dublin, 1990), p. 7.

45. Countryside Commission, *Protected landscapes in the United Kingdom*, (CCP 326, Cheltenham, 1992), p.4.

The countries which signed this convention pledged themselves to the identification and protection of those cultural and natural properties within their own countries deemed to be of outstanding universal value. It includes the category of 'cultural landscapes'. To be included on the World Heritage List, the cultural property must satisfy one or more criteria and 'have adequate legal and/or traditional protection and management mechanisms to ensure the conservation of the nominated cultural property or cultural landscapes'. In nominating sites, state parties must demonstrate a commitment to their protection through legislation, resource allocation and the implementation of management plans. This is the first international legal instrument to recognise and protect cultural landscapes.[46]

The Strasbourg Recommendations of the Council of Europe (1995) on the integrated Conservation of Cultural Landscape Areas as part of Landscape Policies advocates a multi-disciplinary approach to the identification and appraisal of landscapes and cultural landscape areas in particular and the need to embody the data obtained in legal instruments. The Council of Europe has advised that recognised cultural landscape areas should form the subject of specific protection and conservation measures laid down in general spatial planning matters or in sectoral regulations relating to the cultural heritage. These regulations may identify the sites to be protected by either defining or listing zones. Attention should be focused on the management of change and contributions from local populations.[47] The Council of Europe have advised member states of the necessity to integrate the conservation of cultural landscape areas with local and regional planning. However, directives such as this do not become law unless its principles are already incorporated in the domestic law of the member state and have been made legally binding by the domestic legislative process.

Since 1869, the Office of Public Works in Ireland has been charged with the responsibility for the identification, registration and protection of the archaeological heritage of Ireland.[48] The relevant legislation commenced with the passing of the Irish Church Act of 1869 which (together with other disparate pieces of legislation) was repealed and replaced by legislation in 1930; this was further amended in 1954 and 1987. The National Monuments (Amendment) Act of 1987 made provision for the protection and preservation of national monuments and a register of Historic Monuments (and archaeological areas) was established. Definitions are given in the legislation of 'monument', 'historic monument', 'archaeological area' and 'national

---

46. UNESCO, *Intergovernmental committee for the protection of the world cultural and nature heritage operational guidelines for the implementation of the World Heritage Convention* (Paris, 1994; Aitchison 'The World Heritage Convention: cultural sites and landscapes' in Aalen (ed.) *Landscape study*, pp 183-91; Aalen 'Study and management of the landscape' in Aalen (ed.) *Landscape studyt*, p. 2.

47. Darvill, 'European heritage' in Aalen (ed.)*Landscape study*, pp 173-82, see p. 176; Council Of Europe, *Recommendation of the committee of ministers to member states on the integrated conservation of cultural landscape areas as part of landscape policies*, Council of Europe Recommendation R/95/9 (Strasbourg, 1995).

48. H. Wheeler, 'The national monuments of Ireland' in *Arch. Camb.*, cxxxiv (1985), pp 1-10

monument'. Effectively, the National Monuments Acts 1930 to 1987 give formal legal protection to monuments in the ownership or guardianship of the Commissioners of Public Works or a Local Authority; and to monuments on the register and monuments with a preservation order. This provides a two-month moratorium on any works on or near individual monuments.[49] Under the Act, the minister may enter in the Register of Historic Monuments any monuments associated with commercial, cultural, economic, industrial, military, religious or social history of the place in which the monument is situated (including any monument predating 1700). The provisions under the National Monuments Acts contain no prejudice as to date, although the bias in their application has traditionally been towards structures of medieval or earlier date, or buildings of a later date not in active use (fig. 1.2). They provide for the registration of specific objects post 1700 AD which are considered important. A further Amendment Act of 1994 authorised the Commissioners of Public Works in Ireland to establish and maintain a Record of Monuments and Places and to exhibit this record in each county in the form of a set of annotated maps accompanied by a listing. The Act provides for the protection of monuments and places included in the record, the first blanket coverage that did not require individual notification.[50]

A National Inventory of Architecture (NIA) was also established by the Office of Public Works in 1991 on a pilot basis pending the introduction of the National Inventory of Architectural Heritage Bill (1998) which will place it on a statutory basis and link it with a system of listing buildings for preservation. Its role is to establish a survey that would provide an inventory of post-1700 AD structures.[51] This inventory will facilitate the formulation and implementation of policy with respect to the preservation of cultural property. Once this systematic programme of identification, classification and evaluation of the architectural heritage is carried out, a planned programme of preservation will be implemented, using a combination of legislative safeguards and financial incentives. Since January 1999, a grant-aid scheme is operated by local authorities.[52]

Since 1860, the Office of Public Works has also had responsibility for the protection and maintenance of parks and gardens of national importance, which are grouped into three categories; National Parks, National Heritage Gardens and National Historic Parks. Irish National Parks at Killarney, Glenveagh and Connemara differ from large protected landscapes designated as National Parks in

---

49. P. Gosling, 'An interim measure' in *Arch. Ir.*, i (1987), pp 23-27.

50. Office of Public Works, *Establishment and Exhibition of Record of Monuments and Places under Section 12 National Monuments (Amendment) Act 1994* (Dublin, 1995).

51. A. Lindsay, 'Architectural heritage inventory post-1700' in Feehan (ed.) *Environment and development in Ireland*, p. 113; Department of Arts, Culture and the Gaeltacht, *Strengthening the protection of the architectural heritage* (Dublin, 1996), p. 1.

52. Department of Arts, Culture and the Gaeltacht, *Protecting our architectural heritage* (Dublin, 1998).

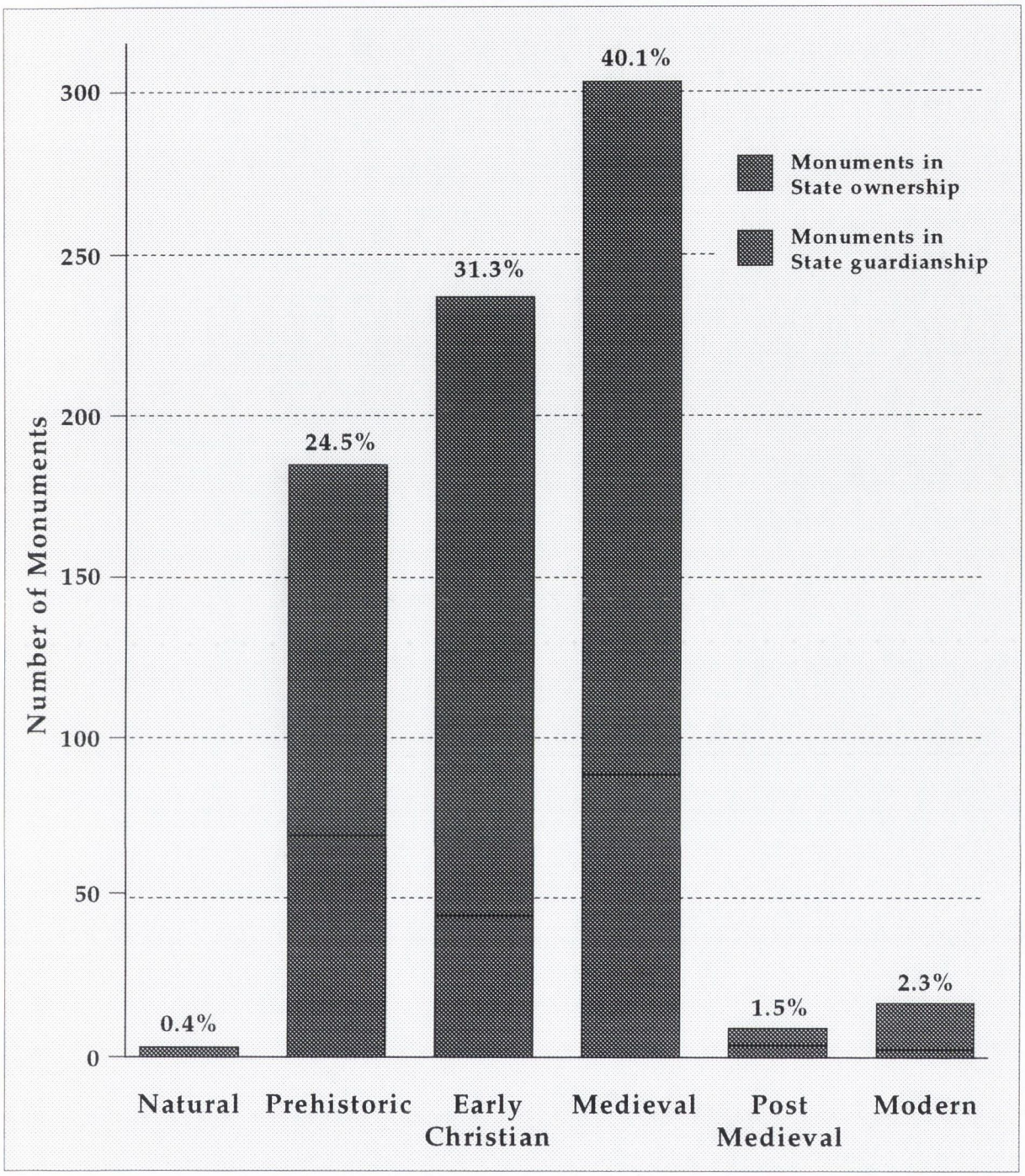


Fig. 1.2 National Monuments in state ownership and guardianship.

other countries, including England and Wales, in that they are wholly state owned.[53] The National Parks and Wildlife Service (Department of Arts, Heritage, Gaeltacht and the Islands) is responsible for the implementation of the Wildlife Acts, EU and international laws, and conventions concerned with species, habitat and landscape protection. Nationally significant ecosystems, protected species locations and natural history sites are designated as Natural Heritage Areas (NHA's) and those of European importance are also designated as Special Areas of Conservation (SAC's).[54] The legal standing of these designations in Ireland has yet to be tested.

1Eii – Development control Various approaches can be found to the protection of landscapes in relation to existing statutory planning arrangements. Powers to control land use and development planning can be vested in the body administering the protected landscape or left with the local government structure to be integrated into their development plan. National Parks in England are mainly the responsibility of the local authority: only in two National Parks (the Peak district and the Lake district) is there a special planning authority. Policies for conservation are implemented through the development plan.[55] For each protected area, the local management plan is the central mechanism to interpret and apply legislation and general policy.[56] This is a site-specific document prepared by the controlling owner, occupier or manager of a piece of land which guides the planning and integrated management of the land.[57] The document sets out the general intentions of the plan; a survey of what is present and how it is currently managed and the local, regional and national context of the site. On the basis of these criteria, objectives are formulated leading to a management prescription. Local plans have a lead role in achieving an appropriate balance between conservation and development.

In Ireland, legal provisions for protected landscapes have been incorporated in local planning legislation. The legislative framework for the limitation of private property rights in Ireland is comprised of the various local government acts collectively called the Local Government Planning and Development Acts 1963-1993.[58] The primary act of 1963 contains eleven sections empowering planning authorities to establish areas of special amenity in order to establish more stringent

---

53. E. Brennan (ed.), *Heritage : a visitor's guide* (Dublin, 1990), p. 11.

54. Aalen, 'Management of the landscape' in Aalen, Whelan and M. Stout (ed.) *Atlas*, pp 255-59, see p. 257.

55. Countryside Commission, *Countryside and nature conservation issues in district local plans: guidance notes for district councils*, CCP 317 (Cheltenham, 1990), pp 4-5.

56. Lucas, *Protected landscapes*, p. 4.

57. Countryside Commission, *Heritage landscapes: management plans* , CCP206 (Cheltenham, 1986); Countryside Commission, *Management plans: a guide to their preparation and use*, CCP205 (Cheltenham, 1986).

58. Department of Local Government, *Planning and Development Act, 1963*, No. 28 (Dublin, 1963); D. Hyde, *Building on the past: urban change and archaeology* (Dublin, 1993), p. 9. Acts were passed in 1963, 1976, 1982, 1983, 1990, 1992 and 1993.

control on development.[59] However, the planning acts in general have a pivotal role in landscape conservation.

Every area of the country is served by a planning authority; the planning authority is the County Council in a county, exclusive of any borough or urban district. Every planning authority must make a development plan for its area. The development plan consists of a written statement and a set of maps which show the authority's objectives for its area. Decisions by the planning authority on planning applications are made within the framework set out in the development plan. The preservation or protection of buildings or other structures of artistic, architectural or historical interest is another purpose for which objectives may be included in a development plan.[60] Such buildings or structures are known as listed buildings or structures; planning permission is required for the alteration or demolition of a building or other structure which is the subject of such a development plan objective. Buildings or structures of archaeological interest may also be listed in the planning authority's development plan. A planning authority may secure the preservation of any site of geological, ecological or archaeological interest (1963, Section 77); a planning authority may assist, by money or facilities, bodies or persons concerned in the preservation or development of amenities, including the preservation of buildings, caves, sites, features and objects of archaeological, ecological or historical interest (1963, Section 14).[61]

An important court judgement with wide implications for archaeology and planning dealt with Carrowmore, county Sligo in 1989. With regard to the setting of National Monuments and the role of the development plan, it was judged that a 'fallow area' should extend outside the immediate area of the amenity.[62]

Further control for large scale developments is provided by the EC Directive (85/337/EC) on the assessment of the effects of public and private projects, which came into force in 1988, but was not substantially implemented until the Local Government Planning and Development Regulations, Ireland Act in 1990. This demanded an Environmental Impact Assessment (EIA) – a systematic examination of the likely impacts of development proposals on the environment – prior to the initiation of any activity likely to have a significant environmental effect.[63] The scope of an EIA is considerable and includes the landscape with its cultural heritage. This has a practical, preventive role in protecting the archaeological heritage as it includes

---

59. J. Shine, 'Rural landscape and the planner' in Aalen (ed.) *The Irish rural landscape*, pp 73-201, see pp 178-9.

60. Hyde, *Building on the past*, p. 1.

61. *Ibid.*, p. 5.

62. *Ibid.*, p. 2, The Attorney General vs Sligo Countyt Council (1989).

63. Y. Scannell, 'The European Community Directive on Environmental Impact Assessment and its implementation in Ireland' in K. Bradley, C. Skehan and G. Walsh (ed.), *Environmental impact assessment: a technical approach* (Dublin, 1991), pp 7-20.

provision for an archaeological Environmental Impact Statement (EIS) to be prepared as part of an overall EIA.[64] With regard to clearly identifiable archaeological remains, the archaeologist can take specific steps (avoidance, preservation or excavation) to mitigate impacts. EIAs have been integrated into some existing decision-making procedures, notably the development control procedure established under the Local Government (Planning and Development) Act of 1963. The EIA Directive is supplemented by numerous other initiatives currently under consideration within the EU including Strategic EIAs for policies, plans and programmes which will be applied to the whole planning process. This will eventually become mandatory for agriculture, forestry, fishing and tourism.[65]

1Eiii – Management Agreements In 1973 the Countryside Commission for England and Wales published a paper entitled *Landscape Agreements* which proposed that the range of legal powers under which public authorities could make agreements with private interests concerning the management of land should be extended to cover matters relating to landscape conservation. This view was accepted by the UK government and subsequently given effect by Section 39 of the Wildlife and Countryside Act, 1981.[66] Under Section 41 of the same Act, National Park authorities are obliged to offer a management agreement where they have objected to an application for a farm capital grant under the Agriculture Act of 1970. The main objective of these agreements are conservation and enhancement of public amenity value. The management activities which are grant-aided continue over a period of years.[67]

Since the European Community's initiative in the late 1980s to promote farming that is sympathetic to the 'traditional countryside', a number of conservation schemes focused on the farming community have been launched in various European countries. These agri-environmental schemes usually involve a management agreement between the farmer and a state body. In Great Britain the designation of Environmentally Sensitive Areas (ESAs) attempted to integrate land management by combining conservation with farming. Launched in England in 1986 by the Ministry of Agriculture, Fisheries and Food, the ESA programme includes archaeology, though ecological considerations seem to have been the main concern.[68] In Scotland the designators of ESAs seek to manage agricultural land in an environmentally

---

64. T. Condit, 'Archaeology' in Bradley, Skehan and Walsh (ed.) *Environmental impact assessment*, pp 111-5.

65. S. Hewitt, 'European policy and management at European level' in Feehan (ed.) *Environment and development*, pp 259-70, see 259-60.

66. Countryside Commission, *Management agreements: policy statements and grants*,, CCP 156 (Cheltenham, 1983), p. 4.

67. *Ibid.*

68. K. Smith, 'Protected landscapes: integrated approaches to conservation management' in Macinnes and Wickham-Jones (ed.) *All natural things*, pp 127-33, see p. 131.

sensitive way that benefits nature conservation, archaeology and landscape in distinctive areas. Management is carried out within individual farm units. The farmer must agree when joining the scheme to protect and enhance the conservation elements and features.[69] Management agreements have been in use in Northern Ireland in association with Areas of Special Scientific Interest (ASSIs).[70] The Peak Park Joint Planning Board in England implements integrated management projects through its Farm Conservation Scheme. Conservation-minded farmers approach the Board for advice on how best to farm either part or all of their holdings. The Park Board draws together grants from appropriate bodies, with some financial input of its own and enters into a management agreement with the farmer. Archaeological, ecological and landscape considerations are included in the draft agreements.[71]

The Rural Environment Protection Scheme (REPS), launched in 1994, is the Republic of Ireland's Agri-Environmental Programme.[72] It is being implemented pursuant to EU Council Regulation. Amongst its fundamental aims is the promotion of active maintenance of features in the landscape. Participating farmers are asked to manage their farms in an environmentally friendly manner. The farmer must implement a wide range of measures; those of most relevance to this study are the preservations of field boundaries on the farm, the protection of historical and archaeological features and the upkeep of the aesthetic appearance of the farmyard and farm. A supplementary measure gives the farmer an extra 20% on the standard grant if public access is provided to their land for environmentally friendly leisure and sporting activities. These farming activities must be sustained over a five-year period in accordance with an agri-environmental plan which is specific to each farm. The scale of participation in this scheme (23,000 by 1997) indicates the significance to landscape conservation of such an initiative. With an uptake of £100 million in 1997, the programme is one of the principal publicly funded schemes currently available to farmers. The highest uptake in this scheme has been in the small farm, non-dairying areas of the Midlands and the West; the two main farming groups that are not participating in this scheme are small drystock farms and intensive dairy farmers (fig. 1.3).[73]

---

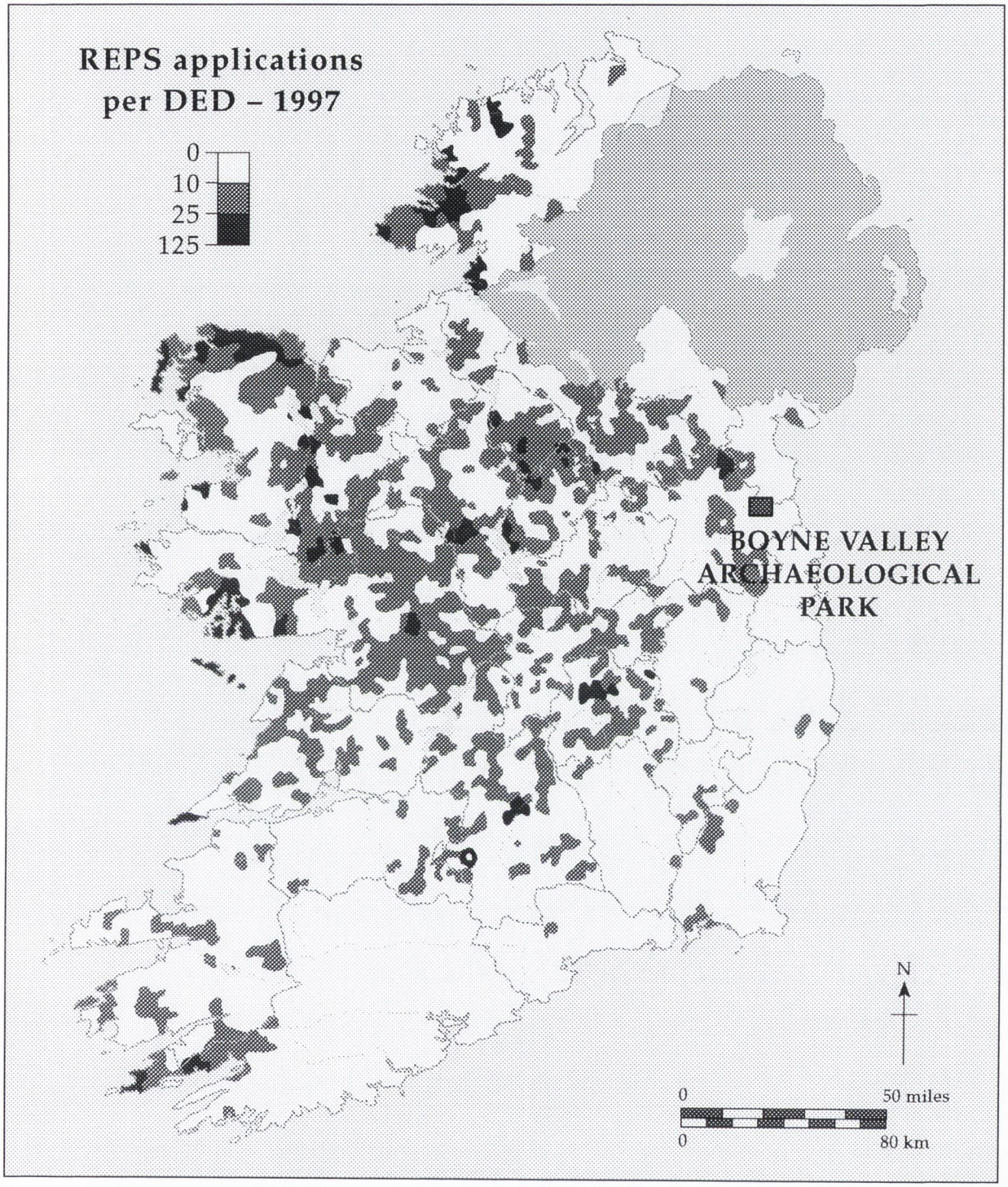
69. L. Macinnes, 'Between idea and reality: integrating landscapes in practice' in Aalen (ed.) *Landscape study*, pp 135-150, see pp 142-3.

70. J. Balfour, *A new look at the Northern Ireland countryside* (Belfast, 1984), p. 2.

71. K. Smith, 'Protected landscapes: integrated approaches to conservation management' in Macinnes and Wickham-Jones (ed.) *All natural things*, pp 127-33, see pp 129-30.

72. Department of Agriculture, Food and Forestry, *Rural Environment Protection Scheme* (Dublin, 1994).

73. T. Leavy and B. Coulter, 'REPS: Highest uptake in Midlands and West' in *Today's Farm*, vii (1997), p. 42.



Fiig. 1.3 REPS uptake – 1997 (after Leavy and Coulter, 1997).

1F The role of the local community in cultural landscape conservation

There is a hierarchy of stewardship in landscape conservation; the stewards include the state parties who signed the World Heritage Convention (1972) and pledged themselves to the identification and protection of those cultural properties within their own countries that are deemed to be of outstanding value; the member states of the Council of Europe recognise that it is their moral responsibility to protect the European archaeological heritage. Primary responsibility rests at government level, but conservation is also the concern of the local authority, community, landowner and farmer. The ratification of the Single European Act enshrines this principle; it legitimises the community's role as guardian of the heritage of Europe and as an advocate of maximum protection.

Aldo Leopold, one of the foremost American conservationists of the twentieth century, identified the need for a land ethic. Conservation is a state of harmony between the people and the land, but there was no ethic dealing with human relations to the land, and with the animals and plants which grow upon it. Commenting on the management of conservation in America, he observed 'a clear tendency in American conservation to relegate to government all necessary jobs that private landowners fail to perform'.[74] This *top-down* approach is apparent in legislation for protected landscapes internationally which usually provide for a local administrative structure involving the range of skills and interest present on the national authority, to be responsible for implementing the concept on the ground. This approach is apparent in the English/Welsh model where there are boards with local and central government appointees headed by a National Parks Officer who exercise statutory planning powers with policy guidance from the Countryside Commission. They work through local authority administration. In France, the reverse is the case; regional parks are run by local boards with representatives of regional and local government and no state representation.[75]

Our rural landscape cannot be satisfactorily protected solely by a managerial elite; more vital is the informed stewardship of local communities, supplemented by an enhanced self-awareness and deeper environmental understanding. Local communities should be immersed in the management of their landscapes.[76] Almost every piece of landscape is valued by someone. Local communities can be involved in identifying the things they value about their local area. One of the ways of doing this has been the parish maps concept initiated by an English conservation group known as Common Ground. Another is the Countryside Commission's Local Jigsaw

74. A. Leopold, *A Sand County almanac*, 3rd ed., (Oxford, 1989), pp 201-26.

75. Lucas, *Protected landscapes*, pp 62-64.

76. Aalen, 'Irish rural landscape' in Aalen, Whelan and M. Stout (ed.), p. 7.

Initiative.[77] A co-operative approach to managing a protected landscapes is being tried in parts of Scotland. In the Kilmartin Glen Project in Argyll, Historic Scotland and the local planning authorities collaborated to set up a steering group of the six key funding agencies. Their aim is to work with local communities to enhance public awareness, understanding and enjoyment of Kilmartin glen through a co-ordinated approach to countryside management and visitor management. A project development officer has been appointed with responsibility for the day-to-day management of the project and for converting its objectives into practical action.[78]

Rural landscape should be managed so that change is allowed to proceed at a pace which maintains what we believe to be important, without diminishing the well-being of local communities. Accommodating change, whilst maintaining desired features, is the great challenge of landscape conservation.[79] Concern about sustainability has long been a feature of landscape management. Human use and enjoyment of the world's cultural and natural resources should not diminish or destroy them. One of the most important ways of maintaining these resources is through the establishment of national parks.[80] However, the social and economic well-being of residents is also an essential consideration in protecting the landscape. Employment in the tourist sector and related service industries remains a key part of the economy of protected areas.[81] For instance, the policy of the Isle of Skye and Lochalsh District Council is that they will safeguard ancient monuments and other archaeological sites insofar as this is compatible with the aims of achieving a sound employment base for the local population. The Council has a museums officer and a sites and monuments record. With the assistance of professionals and amateurs, the island's archaeology and history is receiving significant attention. Safeguarding the landscape here entails equal concern for the financial well-being of the rural community.[82] Closer to home, the development of facilities in the Area of Outstanding Beauty (AONB) in the Mourne Mountains are being approached on the basis of a commonality of purpose between rural development and conservationists.[83] The EU initiative in the Republic of Ireland, The Integrated Rural Development (or Leader) Programme, enables groups in rural areas to implement

---

77. Countryside Commission, *Countryside and nature conservation issues in district local plans: guidance notes for district councils*, CCP 317 (Cheltenham, 1990), pp 17-8.

78. Macinnes, 'Between idea and reality' in Aalen (ed.), *Landscape study*, pp 140-2.

79. B. Green, 'Landscape conservation or landscape preservation' in Aalen (ed.) *Landscape study*, pp 161-72, see p. 161.

80. Countryside Commission, *Position statement*, CCP 432.

81. Lucas, *Protected landscapes*, p. 67.

82. D. Mackay, 'Scottish rural highland settlement: preserving a people's past' in R. Hingley (ed.), *Medieval or later rural settlement in Scotland: management and preservation* (Edinburgh, 1993), pp 43-51.

83. M. Murray and J.V. Greer, 'Prized landscapes and recreation policy in Northern Ireland: the Mournes exemplar' in *Ir. Geog.*, xxiii (1990), pp 43-9.

their own multi-sectoral integrated business plans for the development of their areas which includes the preservation and improvement of the environment.[84]

The EU have recognised that farming communities have an increasingly pivotal role to play in safeguarding their environment and the countryside.[85] The reforms of the Common Agricultural Policy (CAP) have forced farmers to consider alternative uses for their land, buildings and resources. Farming is, after all, about using the resources of the land to support the community that lives on the land.[86] Farmers aware of these developments and concerned about their future survival have been seeking new enterprises to maintain or increase their income. The EU and the government are encouraging farmers to diversify and are grant aiding activities which relate to cultural resources. Agri-tourism is the growth industry of the latter half of the twentieth century. Within most countries, farm tourism is one of the leading types of rural development.[87] The environmental heritage of the rural landscape could be the single resource with the widest potential in rural tourism.[88] Continued development here is dependent on conservation of the landscape resource.

1G Case Study: The Boyne Valley Archaeological Park

1Gi – Introduction This aspect of the study seeks to examine how landscape conservation theory and practice impinge on the area established in 1989 as the Boyne Valley Archaeological Park or 'Protected Area'. The entire thesis is focused on the current area of Park; the study is not specifically aimed to evaluate whether the area itself needs to be reviewed. The study area, which coincides with the boundaries of the 'Park', lies east of the village of Slane and west of the town of Drogheda, incorporating the village of Donore (fig. 1.4). It measures 8km from east to west and 6km from north to south, comprising an area of 3,300ha.[89] All of 10 townlands and parts of 11 others are in the Park area which falls within the counties of Louth and Meath, three baronies and six parishes (table 1.1).

This area fulfils the criteria of a 'cultural landscape' discussed above (1B); it has been so long and closely settled that the human impress on its countryside is all pervading. The valley has been progressively transformed into a cultural landscape over seven thousand years of human settlement. Its historical interest lies in the accumulating layers of well preserved features which are the products of different land uses in earlier times. William Wilde claimed in 1845 that the valley is 'so

---

84. Department of Agriculture, Food and Forestry, *Schemes and services 1996* (Dublin, 1996), p. 9.

85. G. Stout, 'Grant-aided change in the Boyne Valley Archaeological Park: agricultural grants 1950-1990' in *Ir. Geog.*, xxvi (1993), pp 79-88.

86. J. Feehan, 'A direction for rural tourism on the farm' in J. Feehan (ed.), *Environment and development in Ireland* (Dublin, 1992), pp 577-82, see p. 578.

87. D. Gilbert, 'Appropriate rural development for social and environmental sustainability' in Feehan (ed.), *Environment*, pp 568-76.

88. Feehan 'A direction for rural tourism' in Feehan (ed.), *Environment*, p. 577.

89. The study area lies between 7°21' – 7°30' west longitude, '53°39' – 53°44' north latitude.

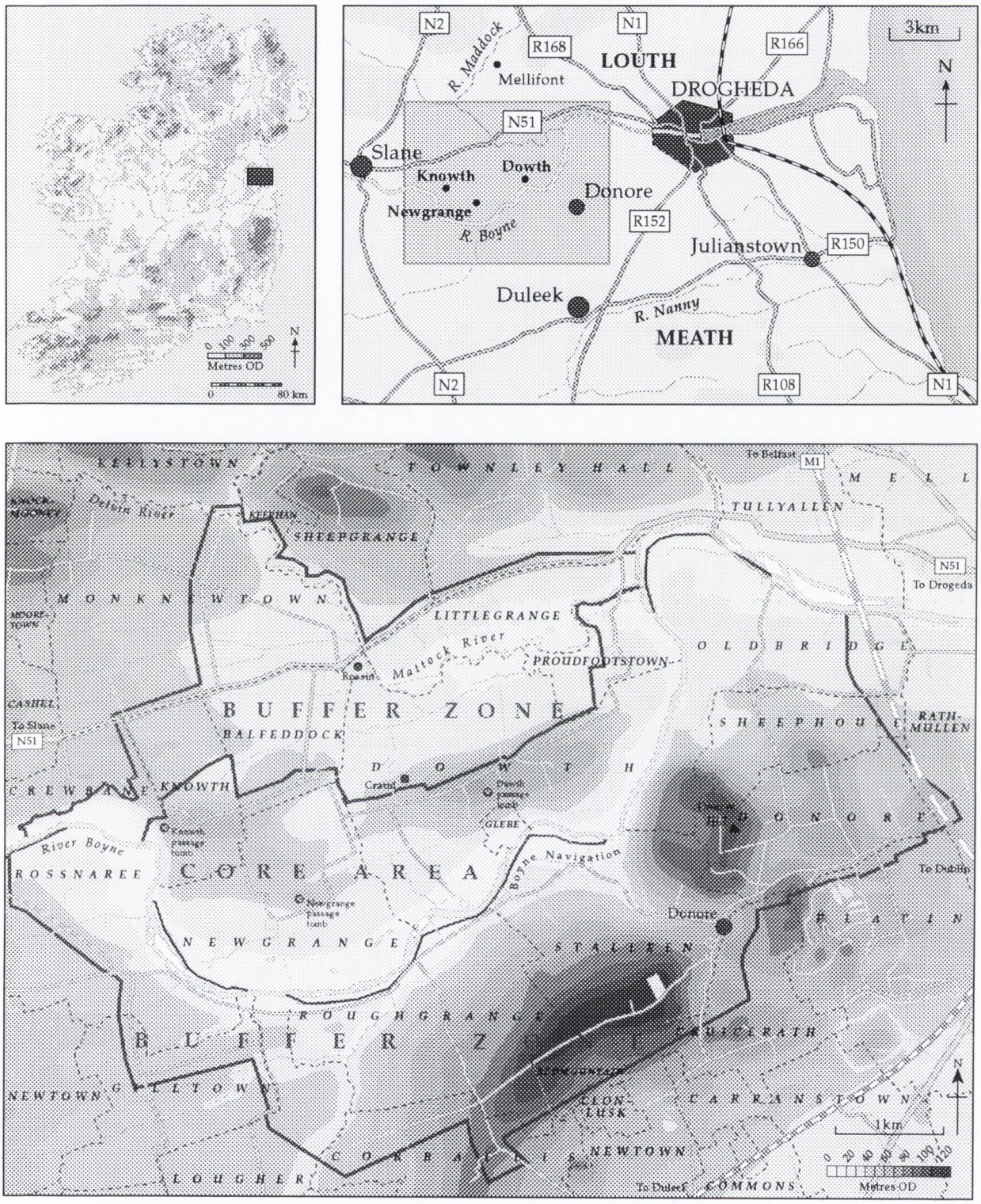


Fig. 1.4 The Boyne Valley Archaeological Park, county Meath. The proposed park measures 8km by 6km comprising a core area of 780ha surrounded by a buffer zone of 3300ha.

Table 1.1
Townlands in the Boyne Valley Archaeological Park

Townland	Parish	Barony
Balfeddock	Monknewtown	Upper Slane
Corballis (part)	Duleek	Lower Duleek
Cruicerath (part)	Donore	Lower Duleek
Donore	Donore	Lower Duleek
Dowth	Dowth	Upper Slane
Gilltown (part)	Knockcommon	Lower Duleek
Glebe	Dowth	Upper Slane
Knowth	Monknewtown	Upper Slane
Littlegrange	Tullyallen	Ferrard (county Louth)
Lougher (part)	Duleek	Lower Duleek
Monknewtown (part)	Monknewtown	Upper Slane
Newgrange	Monknewtown	Upper Slane
Oldbridge (part)	Donore	Lower Duleek
Platin (part)	Duleek	Lower Duleek
Proudfootstown	Dowth	Upper Slane
Rathmullen (part)	Donore	Lower Duleek
Redmountain (part)	Duleek	Lower Duleek
Rossnaree (part)	Knockcommon	Lower Duleek
Roughgrange	Duleek	Lower Duleek
Staleen	Donore	Lower Duleek
Sheephouse (part)	Donore	Lower Duleek

memorable in ancient history... that the history of Ireland might be written in tracing its banks.'[90]

The establishment of an Archaeological Park for the Boyne Valley was first mooted by the National Monuments Advisory Council in the early 1970s.[91] In December 1985 a committee consisting of representatives of Meath County Council, the Office of Public Works, Bord Failte, National Museum and the Department of Archaeology, University College Dublin recommended in principle that an Archaeological Park be established. To assist the committee in their work, a specialist Landscape and Planning Consultant was commissioned to implement a study of the planning issues involved, notably visitor facilities, access and interpretation (see below). Following this study the Irish government approved (in 1987) the establishment of a 'Protected Area', focused around the celebrated passage tombs of Knowth, Dowth and Newgrange. The Area has received international recognition as a World Heritage Zone by UNESCO. The motivation behind the establishment of an Archaeological Park in the Boyne valley reflects factors (environmental, educational and academic) raised in the previous discussion . The Boyne Valley Archaeological

90. W. Wilde, *The beauties of the Boyne and Blackwater* (Dublin 1849), p. 4. Jane Elgee (Speranza) wrote a favourable review of this work, which led to contact with William Wilde, and marriage. Their famous offspring was Oscar Wilde.

91. Mitchell and Associates, *Environmental impact statement, Park Centre Building for Boyne Valley Archaeological Park: non-technical summary* (Dublin, 1992), pp i-iii.

Park was proposed to provide strict protection for a remarkable archaeological complex and to benefit from the highest planning standards, to cater for the strong tourist potential and to facilitate the continuation of archaeological research by students at home and abroad.[92]

Awareness of the outstanding cultural heritage together with infrastructural difficulties at Newgrange led to the final decision to establish the Boyne Valley Archaeological Park in 1989. For several years, visitor numbers to Newgrange passage tomb, the most famous monument in the valley, had been increasing at a phenomenal rate (fig. 1.5).[93] The pressure on Newgrange and on access roads encouraged the rationalising of access to this part of the valley and the creation of alternative attractions in the immediate area to alleviate visitor pressure. The National Monuments and Historic Properties Service (NMHPS) have implemented a management regime, devised to increase carrying capacity and present the overall 'site' as an entity.[94] A new visitor centre at Donore provides visitor services, information and interpretation. The management has focused on the presentation of the megalithic cemetery as a whole rather than as a group of individual monuments. The strategy is to focus on the Neolithic, whilst not ignoring other remains.[95]

A landscape architect, Tony O'Neill, was commissioned in the 1980s to study the planning issues involved in establishing the Boyne Valley Archaeological Park, and to advise on visitor facilities, access and interpretation. Within this strict brief, O'Neill was required to look at the protection and enhancement of the area. A major objective of this study was to develop a coherent strategy for the preservation of the archaeological sites on a large scale, the emphasis being on the Neolithic remains. The main activities in conflict with the monuments were identified as agriculture, mining, recreation or its lack, tourism, residential and other land uses. The study sought to determine their effects on the archaeological resources. This study was approached in a qualitative rather than quantitative manner. The study examined the physical and man-made resources of the area and highlighted how they could be best protected by the current planning process. The evolution of the present cultural landscape received little attention with a brief resumé of human interaction with this landscape, followed by a discussion of the present land ownership structure. The introduction of new legislation for this protected landscape was dismissed as was the application of a Special Amenity Order which was examined and rejected in favour of the current policy of listing views for protection in the County Development Plan. From a management point of view, the study recommended purchase of monuments

92. A. O'Neill, National Archaeological Park: Boyne Valley (Unpublished consultancy report, 1989), pp 4-5.

93. F. Convery and S. Flanagan, *Tourism in County Meath: a strategy for the 90s* (Dublin, 1991), p. 64.

94. Brady, Shipman and Martin, *Boyne Valley Integrated Development Plan* (Dublin, 1996), p. 11.

95. Convery and Flanagan, *Tourism in county* Meath, p. 3.

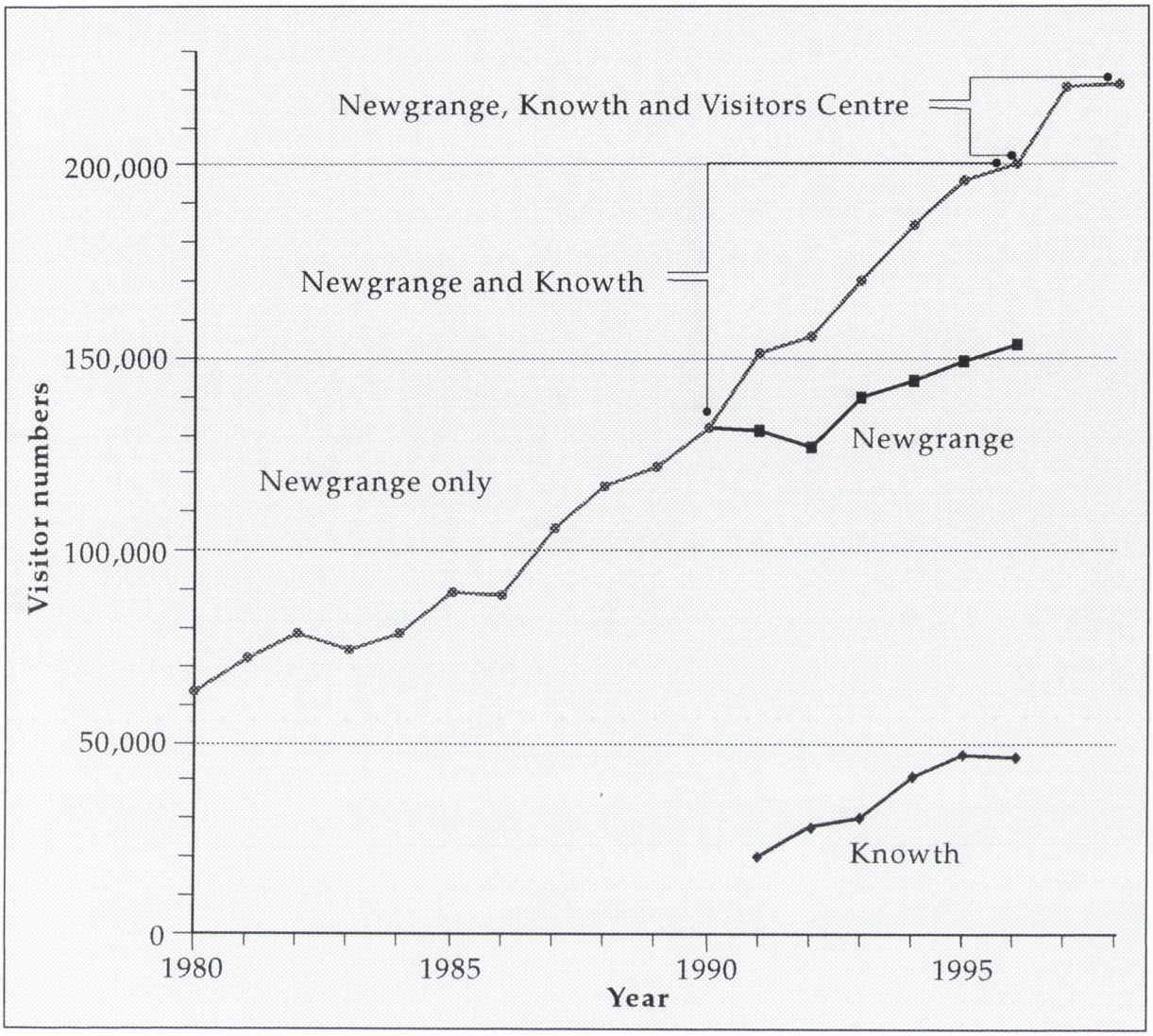


Fig. 1.5 Visitor numbers to sites in the Bend of the Boyne – 1980-1998.

in the core area and site management through management agreements between landowners and NMHPS which could also be tied into EU schemes. This study suffered from a limited knowledge of the area's cultural heritage and an inadequate understanding of internal variations, particularly in regard to farming. The recommended management structure is too limited and failed to integrate the objectives of a range of managing authorities and organisations, each responsible for a different aspect of the valley's heritage. The emphasis on architectural and planning procedures in O'Neill's study is a standard approach taken by landscape architects, an approach which views the living landscape negatively as 'inert matter' thereby 'simplifying its complex interactive components'.[96]

1Gii – Legislation and administrative structures When the government approved the establishment of an Archaeological Park or Protected Area focused around the passage tombs of Knowth, Dowth and Newgrange this act was aspirational in nature and was not supported by any specific legislation.[97] General environmental protection is afforded by statutory measures in the Planning Code and National Monuments Acts. The official management of the Protected Area is in the hands of the NMHPS who work in collaboration with the Department of Archaeology at NUI Dublin (formerly UCD). Responsibility at a regional level is in the hands of Meath County Council (fig. 1.6). The NMPHS has direct links to the Waterways Service and the National Parks and Wildlife Service as all three agencies are in the Department of Arts, Heritage, Gaeltacht and the Islands. Since 1989, a programme for the presentation of the Protected Area has been pursued by the NMHPS. This has involved the completion of major conservation work at Newgrange, the acceleration of conservation and presentation work at Knowth, and land conservation. Increased public access through the area is being facilitated through agreements with landowners.

The National Parks and Wildlife Service (NPWS) is charged with the preservation and maintenance of habitat sites in the area. They designate areas of scientific value and importance as Natural Heritage Areas. Many of these correspond to the former Areas of Scientific Interest. The National Parks and Wildlife Service are also responsible for identifying Special Areas of Conservation (SACs) under the European Habitats Directive.[98]

Meath County Council is the regulatory authority on environmental protection in the county. The role of Meath County Development Plan in relation to the protection

---

96. M. Cregan, 'Landscape architecture: a view of the profession' in Aalen (ed.) *Landscape study*, pp 55-80, see p. 64.

97. Brady, Shipman and Martin, *Boyne Valley Integrated Development Plan*, p. 11; Pers. Comm, Eugene Keane, Project Manager, Dúchas.

98. Brady, Shipman and Martin, *Boyne Valley Integrated Development Plan*, pp 5-16; habitats directive 92/43/EEC.

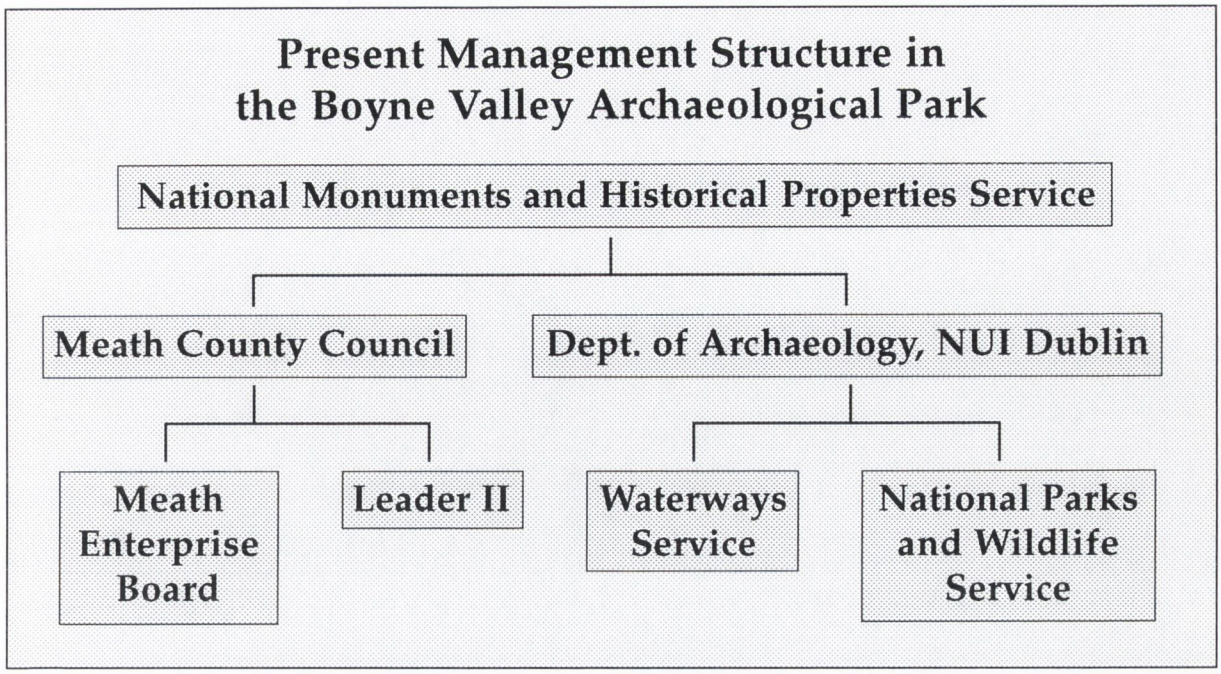


Fig. 1.6 The management structure in the Boyne Valley Archaeological Park.

of the Boyne Valley Archaeological Park is stated in the current Plan (1994) which has designated the park as an Area of Special Archaeological Protection.[99] This is one of four areas in county Meath – including Tara, Teltown, and Fourknocks (Loughcrew is unaccountably omitted) – which have been designated as Areas of Special Archaeological Protection by Meath County Council. In practice all proposed development is referred to the National Monuments Advisory Council who are afforded an opportunity to make an inspection and recommendations. Only housing necessary for acceptable activities in these areas is permitted.[100]

With regard to architectural heritage, the policy of the County Council is to encourage the preservation of buildings and items of artistic, architectural and historic interest included in their limited listings. 'Preservation' includes the wider protection of the area's setting and character through the planning process and the possibility of future legislation. The sympathetic renovation or re-use of buildings is encouraged and promoted.[101] Meath County Council have designated the main channels of the Boyne River as an Area of High Natural Beauty and High Amenity in the County Development Plan. It is the policy of the Council to preserve, improve and open up places or areas from which views or prospects of high visual amenity may be enjoyed.[102] Finally, local initiatives funded by Leader and the Meath Enterprise Board have provided funding for the development of Battle of the Boyne and Corracle/Boyne Fishing interpretive centres.

1H Summary and conclusions

The Boyne Valley 'Archaeological Park' or 'Protected Area' is a cultural landscape of outstanding international importance. The desire to establish a 'Protected Area' here has borrowed from widely accepted international principles and precedent. It has been influenced by international accords and is motivated by environmental, educational, academic and tourism factors. However, landscape evaluation of the area to date has been based on a superficial study which has concentrated on narrow planning and infrastructural issues.

Nonetheless, the creation of this 'Protected Area' in the Boyne valley is, undoubtedly, a significant step in landscape conservation in Ireland. It recognises the importance of the cultural content of a landscape and the need to conserve it *en masse*. However, the general focus to date on Neolithic remains – only one, albeit outstanding, period in the valley's history – might be viewed as an 'á la carte

99. Meath County Council, *County Meath Development Plan* (Navan, 1994).

100. *Ibid.*, Sections 5:26; 12:7.

101. *Ibid.*, Sections 5:3.

102. Meath County Council, *County Meath Development Plan*, Section 12:56.

approach' to cultural landscape conservation.[103] The creation of a protected area along the Boyne offers a unique opportunity to recognise its broader cultural content. The Neolithic era and its physical legacy in the valley is only part of a continuum of settlement that has evolved over seven millennia. Therefore, evolutionary interpretation is essential to its landscape management. Such a time-depth approach will aid recognition and improve an understanding of the close integration between the human and natural aspects of its landscape. It will illuminate this landscape and how people have related to it in the past. Only a study which recognises and reflects the unity of this cultural environment and is capable of making a full assessment of the changes taking place within it, can manage future change.

The present conservation strategy in the Boyne Valley Archaeological Park is too narrowly focused on its prehistoric remains. If properly informed decisions are to be made about the preservation of specific landscape characteristics, management should take into account the complex history of its wider landscape formation. Landscape archaeology and historical geography can play an essential role in providing this fuller picture. These disciplines offer the most complete approach to a cultural landscape assessment of the area and will be shown in this study to be an important tool in the management of protected landscapes. The merits of this approach to cultural landscape conservation will be demonstrated using the Boyne Valley Archaeological Park area as a case study. On the basis of a detailed historic landuse assessment of the area, conservation priorities will be identified for specific features that are considered critical to the preservation of the landscape evidence for a particular aspect of the area's prehistory and history. An informed conservation statement will be prepared for each critical period of landscape change in the valley. These statements form the basis of a management policy for this protected cultural landscape.

103. See, for example, E. Keane, 'Interpreting, preserving and managing ritual landscapes' (unpublished abstract from the 60th anniversary conference of the Prehistoric Society, Dublin, 1995); E. Keane, 'The visitor centre: gateway to Brú na Bóinne' in *Brú na Bóinne*, supplement to *Arch. Ir.*, xi (1997), pp 36-7; Indeed, judging by some of the literature related to the park, some analysts are not even aware that there is a menu.

CHAPTER 2
THE NATURAL LANDSCAPE

2A Introduction

A cultural landscape such as the Bend of the Boyne is the product of dynamic interaction between cultural components and the natural environment which combines bedrock, drainage, soils and climate. Its natural landscape has been continuously shaped by geological, climatic and biological processes which have given the area its unique regional character and physical resources. Physical geography has, in turn, had a significant impact on the seven millennia of human land-use in the valley, particularly on agriculture, communications and local industries. All the sites on which its archaeological monuments occur were chosen as a result of their shape size, and position in the landscape.[1] The natural processes which created the Bend of the Boyne will be examined below under the headings of geology (2B), drainage (2C), soils (2D) climate (2E) and vegetation and wildlife (2F).

The Bend of the Boyne lies in the lower Boyne valley in the Central Lowlands region, a landscape type characterised by its undulating drift covered relief (fig. 2.1). This region is characterised by prosperous, medium to large size farms of meadow, pasture and arable with deciduous woodland occurring in demesnes and steep river valleys.[2] For the most part, it is an area of heavy grassland soils which traditionally, and in modern times, has been part of a cattle fattening belt.[3] The lower Boyne valley opens onto an area of the coastline where the near-continuous upland perimeter of the island is absent; here the lowlands reach to the Irish sea and the Boyne valley provides one of the few easy eastern avenues of access to Ireland's interior. Moreover, this area also lies within the 'eastern triangle', a part of Ireland which receives less rain, and contains less bog and mountain than any other compact area of similar size in the country (fig. 2.2).[4] The 'eastern triangle' in general, and the Boyne Valley in particular, traditionally represents the geopolitical focus of Ireland.[5] Accessibility and environmental resources have combined to make the area attractive to a succession of groups and conducive to striking indigenous cultural developments.

---

1. R. Meehan and W. Warren, *The Boyne valley in the Ice Age; a field guide to some of the valley's most impressive glacial geological features* (Dublin, 1999), see preface.

2. F. Aalen, 'The Irish rural landscape: synthesis of habitat and history' in F. Aalen, K. Whelan and M. Stout (ed.), *Atlas of the Irish rural landscape* (Cork, 1997), pp 4-30, see pp 10-12; G. Herries Davies and N. Stephens, *Ireland* (London, 1978), see pp 17-24, 97.

3. M. Gardiner, T. Finch, M. Comey and T. Radford, 'Over one-third of Meath land has a drainage problem' in *Farm and Food Research*, vi (1975), p. 15.

4. J. Andrews, 'A geographer's view of Irish history' in T. Moody and F. Martin (ed.), *The course of Irish history* (Cork, 1967), pp 17-29, see p. 21.

5. *Ibid.*, pp 19-21.

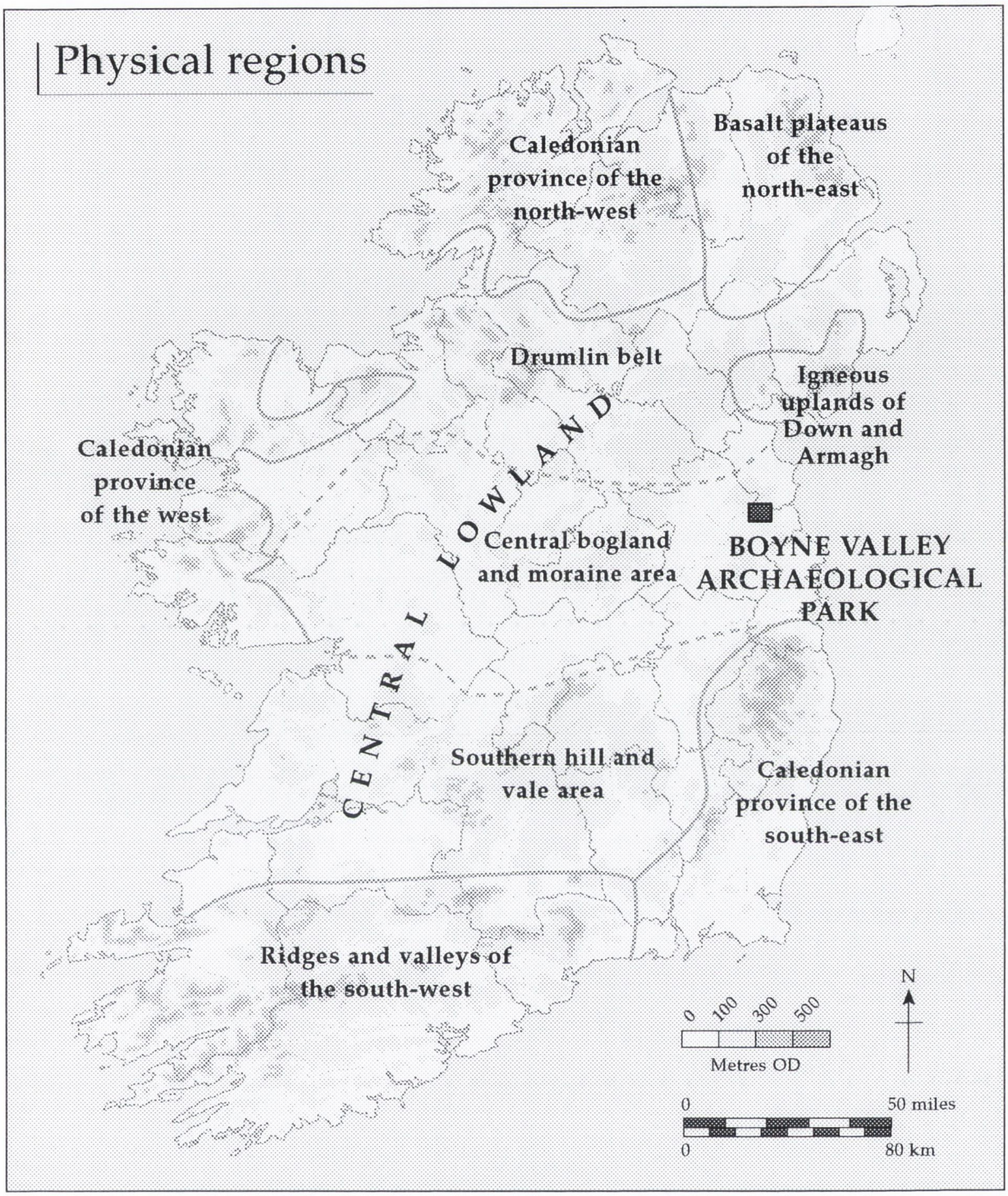


Fig. 2.1 Physical regions of Ireland (after Aalen, 1997). The Boyne Valley Archaeological Park lies in the east of the Central Lowlands, a lowlying region dominated by glacial features.

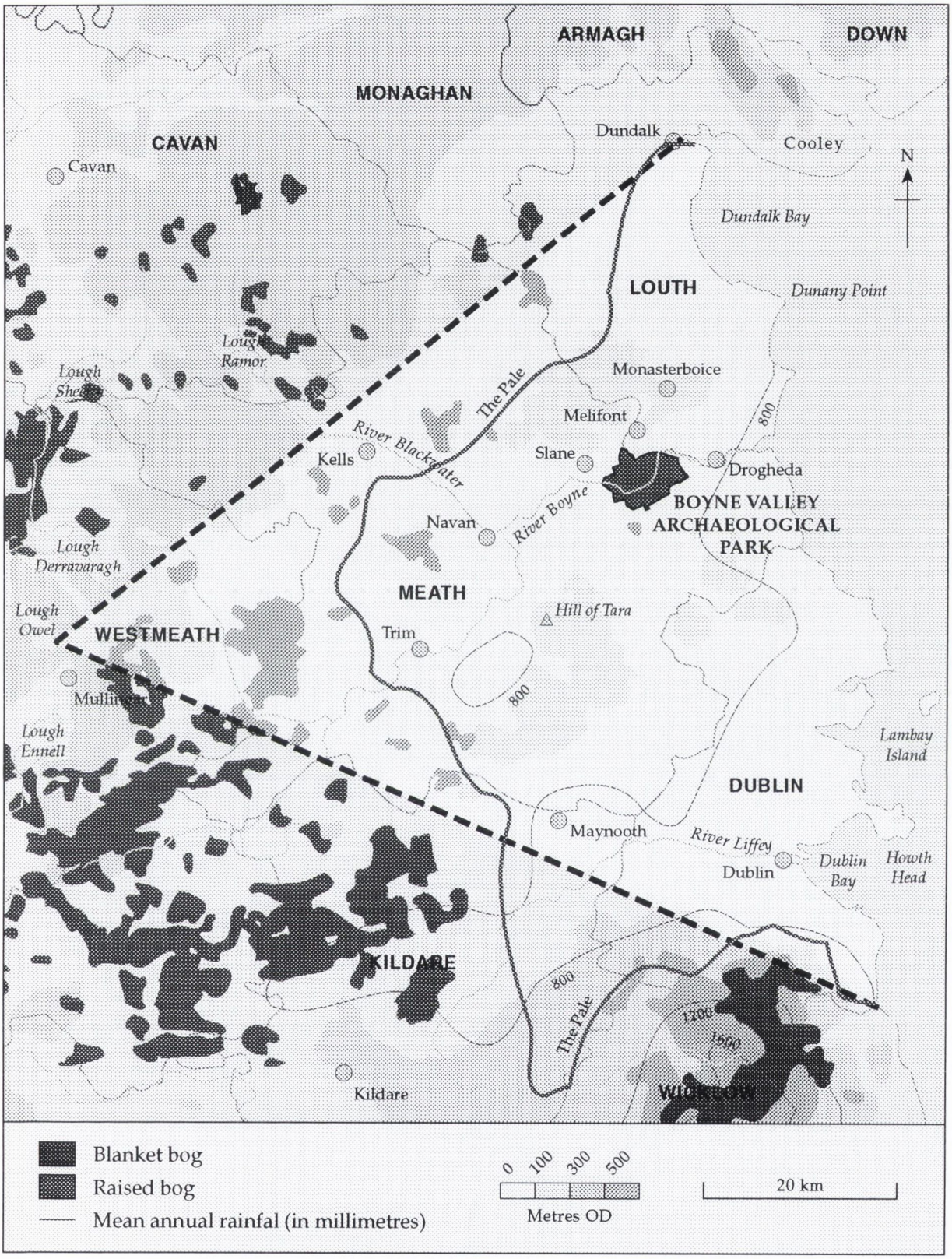


Fig. 2.2 The 'eastern triangle' represents the geopolitical focus of Ireland (after Andrews, 1967).

2B Geology

The Boyne landscape has developed on ancient rocks influenced by the folding and faulting of the Caledonian mountain building phase and largely blanketed by drift deposits derived from the last Ice Age.[6] The area consists mainly of rocks of Carboniferous age and lies between two inliers of Lower Palaeozoic rock, the Louth massif to the north and the Balbriggan massif to the south (fig. 2.3). The oldest rock types in the area are the Lower Palaeozoic rocks (slates) which form an east-west ridge on the northern edge of the valley, dominating its northern prospect; they lie close to the north bank of the Mattock river and extend northwards outside the study area as far as Nobber in north-west Meath. They make contact with Carboniferous limestones to the north of the Boyne on a fault line running through the townlands of Monknewtown and Littlegrange. They are strongly folded and consist of steeply dipping beds of green quartzites or greywackes, hard greenish-grey and buff mudstones, slates and black-brown slates.[7] Lead and zinc can often be deposited at these contact points and exploration licences have been taken out in these areas.[8]

Lying stratigraphically above the Lower Palaeozoic rocks are the Carboniferous rocks. The lower Boyne valley is essentially a Carboniferous syncline with a dominant northeast/southwest axis reflected in the local topography.[9] The core of this syncline is formed of Namurian shales and sandstones. The Carboniferous shales in the area lie stratigraphically above the limestone and will be described later.

The Platin limestone is the best exposed of all the Carboniferous limestone in the area. It lies in a belt stretching from the southwest near Duleek, through Platin cement works and Sheephouse, to Oldbridge in the north. All the limestone north of the Boyne also appears to be of this type. It is exposed as limestone outcrop with low crags and hollows visible north of Duleek and at Cruicerath.[10] In general it is thick bedded, medium to coarse grained, mainly pale limestone. The top of the Platin limestone is found at Mullaghcrone House quarry where the limestone is exposed. Near Duleek, the Platin limestone is obscured by marshy river flats but re-appears near Newtown Bridge. There is a still younger limestone in the area which consists of well bedded limestones with some cherty bands. Most are dark and fine-grained. It outcrops in two places; to

---

6. G. Mitchell, 'The landscape ' in G. Eogan, *Excavations at Knowth I* (Dublin, 1984), pp 9-11; G. Mitchell 'The geology of the Bend of the Boyne' in *Brú na Bóinne: A supplement to Archaeology Ireland*, xi (1997), pp 5-6.

7 A. Bowden, 'The Carboniferous geology of P.L. 1039 and P.L. 1040 and adjoining application areas near Drogheda, county Louth' (unpublished GSI report AB1/71, 1971), pp 1-30.

8. A. O'Neill, National Archaeological Park: Boyne Valley (Unpublished consultancy report, 1989), pp 15-6.

9. A. McCabe, 'Directions of late-Pleistocene ice-flows in eastern counties Meath and Louth, Ireland', in *Ir. Geog.*, xx (1972), pp 443-61, see p. 443.

10. W. Neville, 'The Carboniferous knoll-reefs of east central Leinster' in *R.I.A.Proc.*, B, lix (1957-59), pp 285-303.

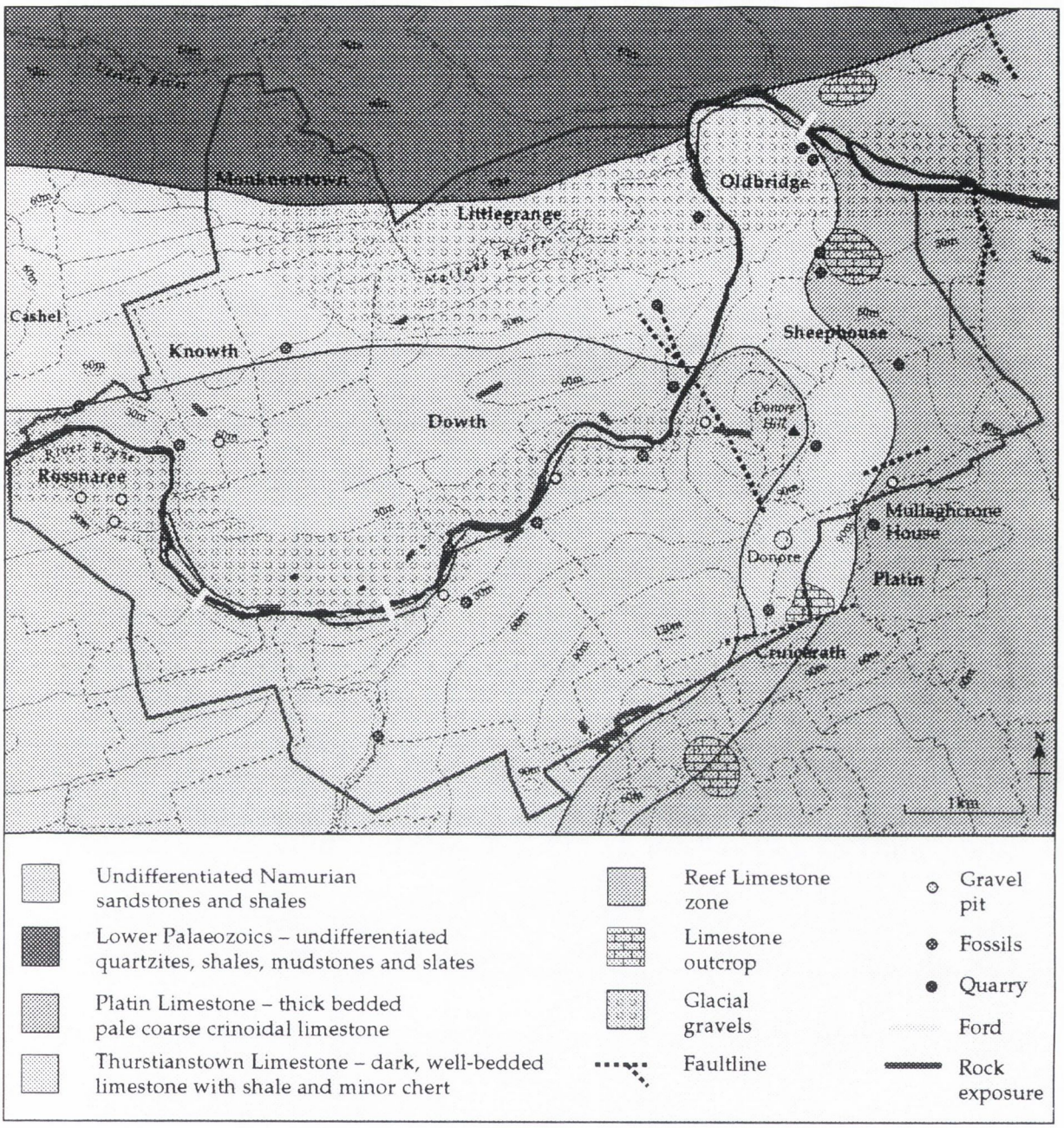


Fig. 2.3 Geological map of the Boyne Valley Archaeological Park (after Bowden, 1971).

the north of Newgrange and Dowth, and also in a north-east to south-west belt from Oldbridge to as far south as Cruicerath.[11]

The presence of limestone is mirrored in the building stone used locally and in the names of houses such as Whiterock House near Duleek and Rock House at Staleen. The carboniferous rock formation is similar to that at Fennor which was used in the building of the church and fortified house. There were building stone quarries at Sheephouse and Oldbridge which provided this ashlar limestone for the front of the present church at Donore opened in 1838, the parochial house built in 1860 and many of the stone houses in Donore village and churches in Drogheda.[12] Between 1866 and 1884, four churches were built in Drogheda, all using Sheephouse stone.[13] The Boyne viaduct was also constructed with this stone in the 1850s.[14] In the eighteenth and nineteenth centuries, there were additional quarries at Slane, Cashel, Dowth and Proudfootstown (fig. 2.3).

Fossil rich deposits are recorded in this Carboniferous limestone in a number of locations in the Bend of the Boyne; in a quarry east of Slane, Sheephouse quarry, Cruicerath, a limestone cave at 'Corragubbin' near the boundary of Corballis and Newtown, and in quarries one mile east of Platin House (fig. 2.3). The reef of limestone at Cruicerath is remarkable in the number and quality of fossils, with over seventy species recorded from this single locality .[15]

North of the Boyne river lies an elongated ridge of Carboniferous shale, overlying the earlier Carboniferous limestone (fig. 2.3). The shales form the core of the south-west plunging syncline. Exposure is mainly confined to stream beds and banks (such as that beside Rock House opposite the visitor centre) and two quarries. On the south side of the river, this shale forms a still higher rock ridge between Donore and Redmountain and stretches south-west as far as Kentstown. The Redmountain shale group consists of black shales and massive sandstones. A shale group of black shales and minor beds of limestone is found south of Glenmore. The eastern extremity of these shales are being quarried at Donore by Irish Cement. Before the Ice Age this northern ridge of black shale continued southward to the present Donore village but today it is cut by a glacial gorge running south-west from the Boyne. At some stage in the Ice Age, large quantities of meltwater spilled across the ridge and cut a narrow gorge through the rock along the course that the river now takes. This event created a dramatic, deep and narrow ravine at Oldbridge. Glenmore, an eighteenth-century estate

11. Bowden, 'Carboniferous geology', pp 11-2.

12. S. Matthews, 'Under the hill of Donore' in *Jn. Old Drogheda Soc.*, ix (1994), pp 118-28, see p. 126.

13. S. Matthews, Place and people: a family exploration (unpublished family history, 1980), p. 16.

14. Geological Survey of Ireland, 'Explanatory memoir to accompany Sheets 91 and 92' (unpublished memoir, 1871), p. 22.

15. *Ibid.*

house, was erected overlooking the chasm. The presence of estuarine material as far inland as Glenmore shows that the tide had once flowed freely to this point.[16]

Fossil-rich deposits have been recorded in this shale: on the north side of the river near Knowth House; in a quarry in junction beds between shale and limestone a little east of Rossnaree House; on the north side of the river east of the lock south of Newgrange House; on the south side of the river in a cutting for the road to Duleek at Roughgrange; on the south side of the Navan to Drogheda road about a quarter of a mile east of the preceding site; on the south side of the river close to the 'cottage' at Staleen; on a road- cutting a half a mile south-west of Donore; and on the banks of a stream in Sheephouse (fig. 2.3).[17]

Copper resources occur in the lower Boyne valley.[18] Deposits of coal and copper ore were exploited to a limited extent near the Boyne in the eighteenth and nineteenth centuries. Isaac Butler, visiting Slane in 1744, was told of a deep and dry copper mine in the townland of Cashel, known as the Golden Spot, the site of which has not been clearly identified.[19] There are also lead and copper deposits west of Oldbridge.[20]

Glacial History The surface landforms of the lower Boyne valley have been moulded by relatively recent geological events during the last Ice Age. The glacial deposits were mainly laid down during the most recent glaciation when the area was smothered by ice and these vary in form and sedimentology. The pattern of glacial movement and deposition in the area can be interpreted from these geomorphological and geological features.[21] The area was influenced by ice coming from two sources; the north-central midlands and the Irish sea basin. The Drogheda till is the oldest glacial deposit known in the area. It indicates that a sizeable ice sheet built up somewhere to the north-west of the area in central and northern Ireland – which subsequently moved over the valley in a north-west to south- eastwards over the Drogheda region. Indirect evidence for this glaciation occurs at Monknewtown in the Mattock valley where distinctive erratics of inland provenance are found in a till underlying the Tullyallen deposits (fig. 2.4A).[22] The Drogheda ice withdrew

16. G. Mitchell, 'Did the tide once flow as far as Newgrange?' in *Living Heritage*, xii (1995), p. 34.

17 Geological Survey of Ireland, 'Explanatory memoir'.

18. G. Stout, 'Embanked enclosures of the Boyne region' in *R.I.A.Proc.*, xci (1991), C, pp 245-84, p. 253, fig 5); G. Cole, *Memoir and map of localities and minerals of economic importance and metaliferous mines in Ireland* (2nd ed., Dublin, 1956); J. Jackson, 'Metallic ores in Irish prehistory: copper and tin' in M. Ryan (ed.), *The origins of metallurgy in Atlantic Europe* (Hojberg, 1978), pp 107-25.

19. Quoted in C. Ellison, *The waters of the Boyne and Blackwater* (Dublin, 1983), p. 58.

20. Geological Survey of Ireland, 'Explanatory memoir', p. 42.

21. Meehan and Warren, *The Boyne valley in the Ice Age*.

22. A. McCabe, 'Directions of late-Pleistocene ice-flows in eastern counties Meath and Louth' Ireland', in *Ir. Geog.*, vi (1972) pp 443-61, see p. 448.

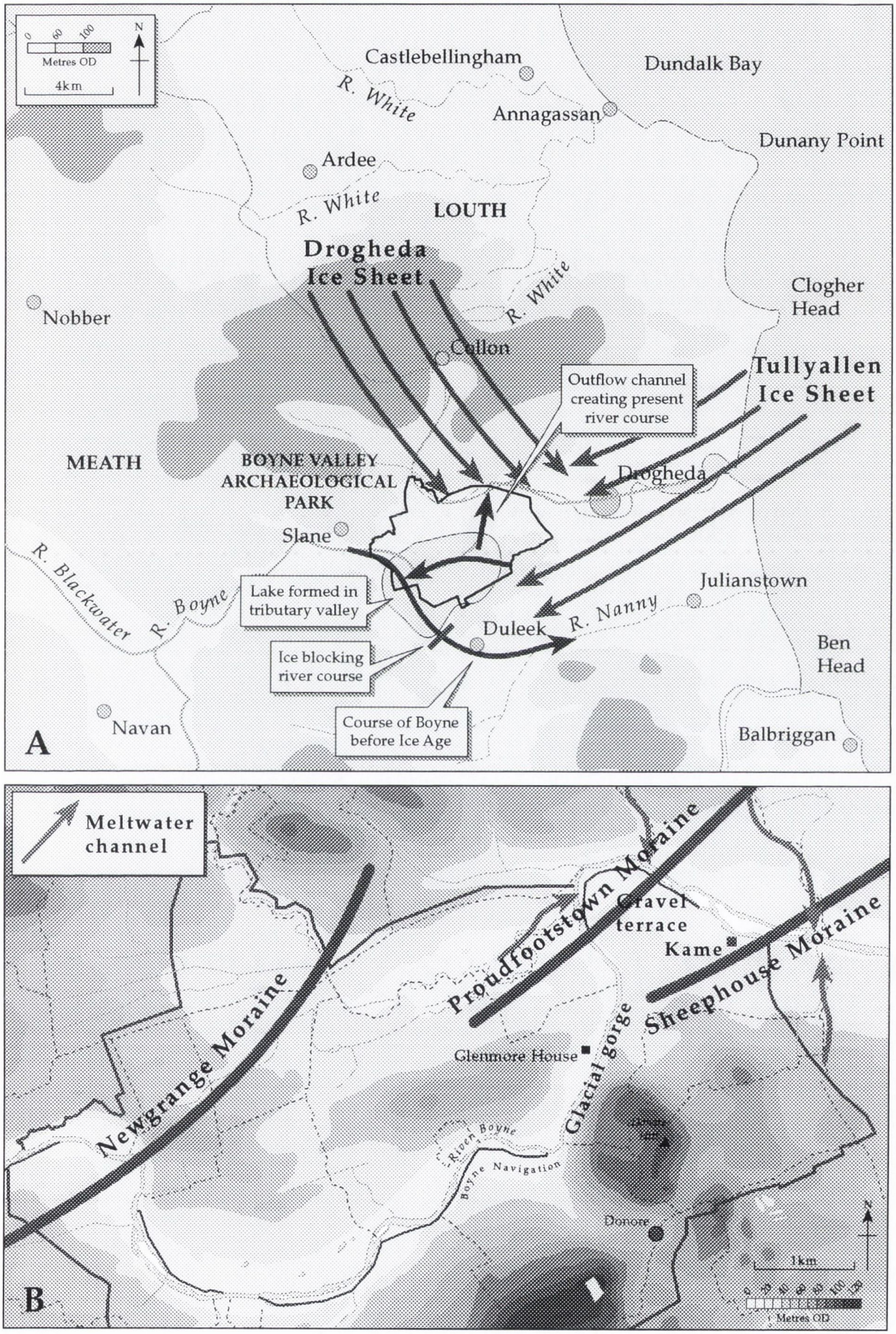


Fig. 4A The direction of the main ice sheets which influenced the topography of the Boyne valley. Fig. 4B Glacial features in the Bend of the Boyne. The moraines which straddle the Boyne are aligned southwest to northeast, indicating that the ice margin was orientated in this direction during its retreat (after McCabe, 1972; Meehan and Warren, 1999).

inland immediately prior to the main south-westward advance of the ice sheet which deposited the Tullyallen till deposits which is associated with the ice sheet in the Irish sea basin (fig 2.4A). There are some erratics of volcanic rock from the Mourne mountains in the gravel pits at Oldbridge associated with this glaciation.[23] At Oldbridge there are also hummocks or kames which were deposited by the melting ice. Inland penetration of the Tullyallen ice was restricted by the presence of the Drogheda ice sheet to the west of Slane. The inland Drogheda ice sheet and the Tullyallen ice sheet were roughly coeval during the maximum stage of the Tullyallen glaciation.[24] Subsequently, sea level fell 100m and a major re-advance of ice from a source in the Irish Midlands took place. This laid down the Newgrange moraine. Detailed field mapping and laboratory analysis of till deposits demonstrates that there was a withdrawal of inland ice to the Boyne. The effects of this retreating ice sheet can now be detected in the landscape by the presence of the Sheephouse and Proudfootstown moraines.[25] .

Glacial debris was frequently deposited at the ice margin as accumulations of tills, gravels, sands and silts, in the form of ridges called moraines. In the valley of the lower Boyne, the association of moraines and outwash terraces influenced by rising sea-level is particularly clear.[26] Between Slane and the coast, there are three terraces – at Newgrange, Proudfootstown and Sheephouse – associated with glacial outwash from a particular morainic stage of the ice sheet (fig. 2.4B). Their presence suggests that sea level was initially rising as the ice margin receded up the Boyne valley but it then fell as the ice margin receded further.[27] The ice sheet stood still at Sheephouse creating a moraine; subsequently it withdrew to Proudfootstown where it left morainic drift straddling the townlands of Proudfootstown and Drybridge. The gradient of the lower outwash terraces indicate that the sea level fell rapidly while the ice front still lay stationary at Proudfootstown. A well-developed, flat-topped terrace is visible to the south of the bridge at Oldbridge. This terrace represents the river flood plain during deglaciation. Since deglaciation, the river has cut its way down to the modern floodplain. At Oldbridge there are mounds (or kames) which were deposited by the ice.[28]

---

23. Meehan and Warren, *The Boyne valley in the Ice Age*, p.6.

24. A. McCabe, 'Directions of late-Pleistocene ice-flows', p. 448.

25. T. Finch, M. Gardiner, M. Comey and T. Radford, *Soils of county Meath* (Dublin, 1983), p. 12.

26. F. Synge 'The coasts of Leinster' in C. Kidson and M. Tooley (ed.) *The quaternary history of the Irish sea* (Liverpool, 1977), pp 199-222, see pp 212-15.

27. F. Synge, *Field Handbook: Annual field meeting 1979* (Irish Quaternary Association, Dublin, 1979), pp 12-13.

28. Meehan and Warren, *The Boyne valley in the Ice Age*, p. 6.

2C Drainage

The development of the modern fluvial system was largely controlled by the pre-existing glacial landscape. Meltwater erosion cut spectacular channels in the area, which now house streams much smaller than would be expected. For instance, there are two deep feeder meltwater channels on the south side of the river at Roughgrange which were cut by powerful flows of meltwater during the de-glaciation.[29] The floors of these valleys take the form of alluvial floodplains. The very steep flanks of the Boyne channel itself reflect this glacio-fluvial erosion during the de-glacial period. The 'bend' in the Boyne was formed at the end of the Ice Age *c.*12,000 years ago. As the ice sheet retreated to the north-west, it left a mantle of glacial till. The Boyne incised itself into this glacial plain and wound a course dictated by a fault line in the underlying shale. East of Crewbane, the river abruptly changes direction and runs southwards below an elevated ridge. Subsequently, the river flows parallel to the shale ridge for some distance until it twists northwards through a glacial gorge, thus completing the Bend of the Boyne. Near King William's Glen, at the point on the river where the Delvin and the Mattock join the Boyne, the river resumes its eastward course to the Irish sea (fig. 2.5).

Before the Ice Age the Boyne flowed southeast towards Duleek and followed the course of the Nanny to the sea. A small tributary of the Boyne started in the vicinity of Donore and flowed westward on the south side of the shale ridge, before joining the Boyne below Knowth. At some late stage in the Ice Age, ice occupied the area and blocked the course of the Boyne flowing into the Nanny valley. A lake formed in the valley of this small tributary river. The lake eventually overflowed by cutting a new channel through the shale ridge that joined Donore Hill to Dowth, not following the blocked up tributary valley, thus escaping into the Mattock river valley (fig. 2.4A)

The Boyne in its lower reaches trends generally slightly north of east and flows across rocks of carboniferous age, chiefly limestone buried by glacial deposits. The trench is largely floored by glacial outwash gravels rich in limestone. In places the gravels have a more morainic character. The valley of the Mattock is similarly incised and choked with gravels. Gravel pits line the south side of the river at Rossnaree, Roughgrange, and Staleen taking advantage of this resource (fig. 2.3). The Boyne is joined from the north by several large streams which originate in the Louth massif, the largest of which is the River Mattock. The Boyne formerly occupied a higher elevation, as is evidenced by the steep flanks of the Boyne channel, which is a striking feature between Oldbridge and Slane.[30]

---

29. *Ibid.*

30. Geological Survey of Ireland, 'Explanatory memoir', p. 13.

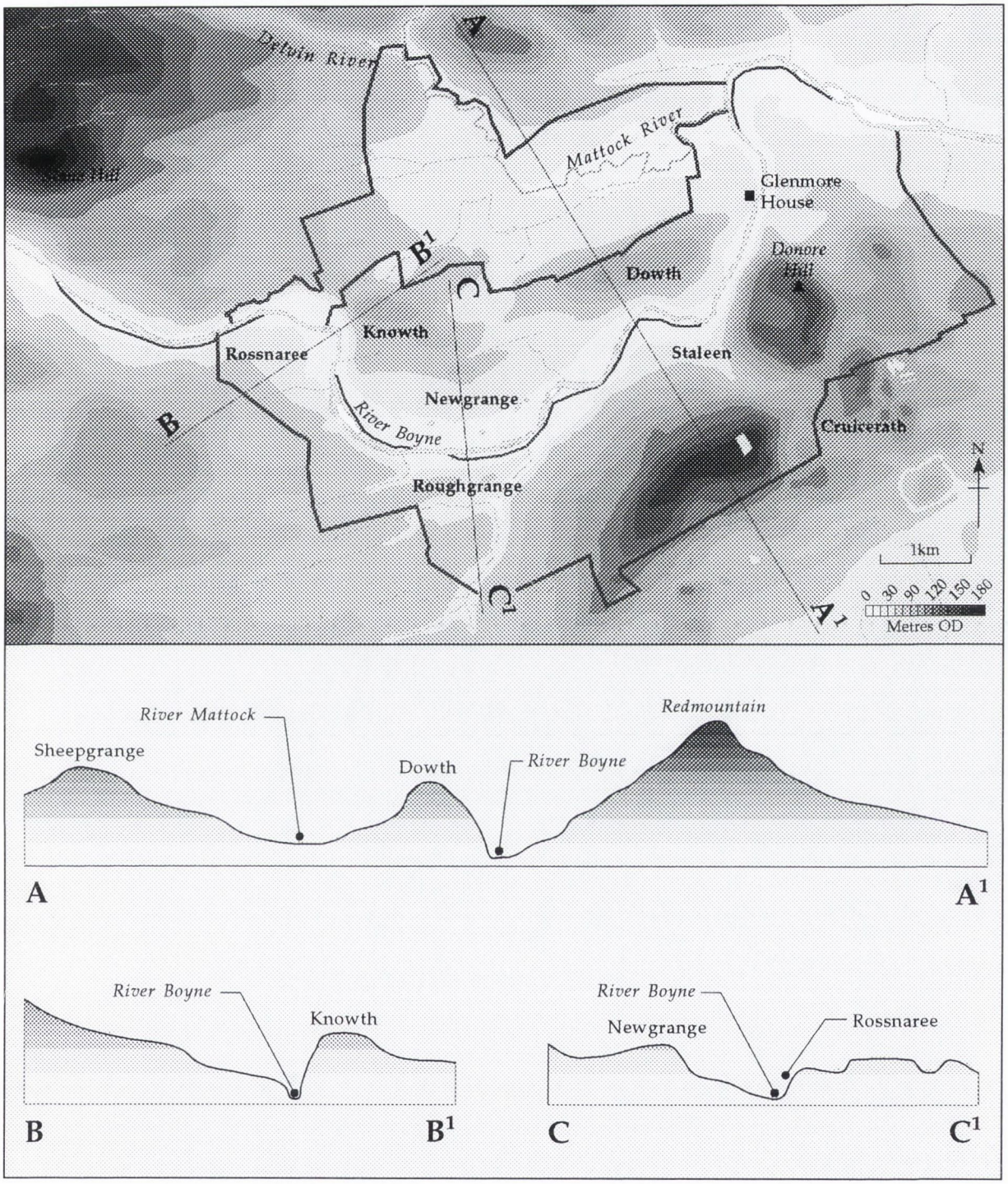


Fig. 2.5 Topography and elevations of the Bend of the Boyne.

There are five drainage systems in the area. At Roughgrange an extensive stream system drains an escarpment and flows through the wetland below. There is a high water table on much of this escarpment which, in the Battle of the Boyne, impeded an engagement between Williamite and Jacobite forces. The second system is also at Roughgrange and consists of a series of short drainage channels created in the floodable callows of the Boyne. North of the river at Knowth, a system of streams drains into the Mattock. This system has created a marshy area between Newgrange and Dowth. Two of the streams flow north/south and drain into floodable land adjoining the Boyne. One forms a townland boundary, the other runs east to west between Newgrange and Dowth. The fifth stream system in the area flows from Donore Hill. Further underground drainage have been suggested in the limestone areas, but the only direct evidence for this is a dry stream valley with caves which may follow a fault east of Sheephouse, opposite Drybridge.[31]

Five and a half thousand years ago, the sea was four metres above its present level and was tidal at least as far as Glenmore.[32] The Boyne is now tidal as far upstream as Oldbridge at the junction of the Mattock and Boyne rivers. There are three shallows upstream along this particular section of the Boyne which were used as fording points; one between Tullyallen and Oldbridge, two between Roughgrange and Newgrange. These shallows formed where rivers cut through glacial ridges. They were particularly favoured as fords because the glacial ridges formed natural routeways over the landscape. Fords, depending on how they are used, may constitute either aids to river crossings or barriers to river travel. Rivers functioned as territorial boundaries, and being places where tribal territories meet, fords were often places of strategic importance and conflict. When many Irish rivers were dredged in arterial drainage schemes of the late nineteenth and early twentieth centuries, fords were disturbed and large bodies of archaeological material discovered, thereby emphasising their strategic importance.[33]

2D Soils

In this lowland area, the dominant action of the ice was the deposition of drift sheets on which the productive soils of the Bend of the Boyne subsequently developed. Two parent materials contribute to these glacial deposits, an eastern component from the Irish Sea basin, rich in clay with a high content of calcium carbonate, and a less rich western component. The calcareous drift in this area is

31. Bowden, 'Carboniferous geology', p. 3.

32. Mitchell, 'Tide', p. 34.

33. E. Kelly, 'Investigation of ancient fords on the river Suck' in *Inland Waterways News*, xx (1993), pp 4-5.

technically referred to as 'Tullyallen Till'.[34] The soils derived from this drift of limestone and shales consist mainly of grey brown podzolics. Flint occurs sporadically in this material. The soil profile is very deep tending to be slightly shallower on the hill slopes.

The National Soil Survey of Ireland has completed a detailed soil survey of County Meath for the purpose of providing basic information for land-use planning.[35] The dominant soil type in the Bend of the Boyne is a fertile, grey brown podzolic (fig 2.6).[36] It is a medium to heavy clay loam with a wide use range but in the Boyne valley it is largely devoted to grassland. It occurs in a broad band across the north side of the river in the townlands of Knowth, Newgrange, Dowth and Glebe and south-east of the Boyne in the townlands of Oldbridge, Sheephouse, Donore, Staleen and part of Roughgrange and Cruicerath.[37] Brown earths have developed on the first glacio-fluvial terrace to the south of Newgrange and continues west along the south side of the river to Rossnaree and east to Oldbridge.[38] These soils are moderately deep and well drained with a gravely loam texture that is easy to cultivate. They have a 'moderately wide' to 'wide' use-range and are suited to pasture and tillage. At present much of these areas are in tillage. An organic regosol covers the low-lying floodable lands adjoining the Boyne's north and south banks and along the Mattock edges.[39] These are notoriously susceptible to poaching and are used largely for summer pasture because of flash flooding. North of the shale ridge sloping down to the Mattock valley, the land has a northerly aspect with areas of ill drained and heavy gley soils and is liable to flooding. The areas more suitable to arable farming lie west and south of Monknewtown church and south of Townley Hall. There are pockets of heavy gley soils in the study area north of Newgrange and Ballyboy in Dowth townland and this soil type predominates within the study area south of the river, forming heavy textured clay-loams, predominantly used for pasture.[40]

2E Climate

The Bend of the Boyne climate has been described as oceanic, with relatively mild, moist winters and cool cloudy summers.[41] This maritime climate is

34. A. McCabe, 'The glacial stratigraphy of Meath and Louth' in *R.I.A.Proc.*, C, lxxiii (1973), pp 355-82, see pp 356-7, 377.

35. Finch, *et al.*, *Soils of County Meath*, preface.

36. *Ibid.*, p. 54.

37. *Ibid.*, p. 30.

38 *Ibid.*, p. 54.

39. *Ibid.*, p. 53.

40. *Ibid.*, pp 40-2.

41. *Ibid.*, p. 5.

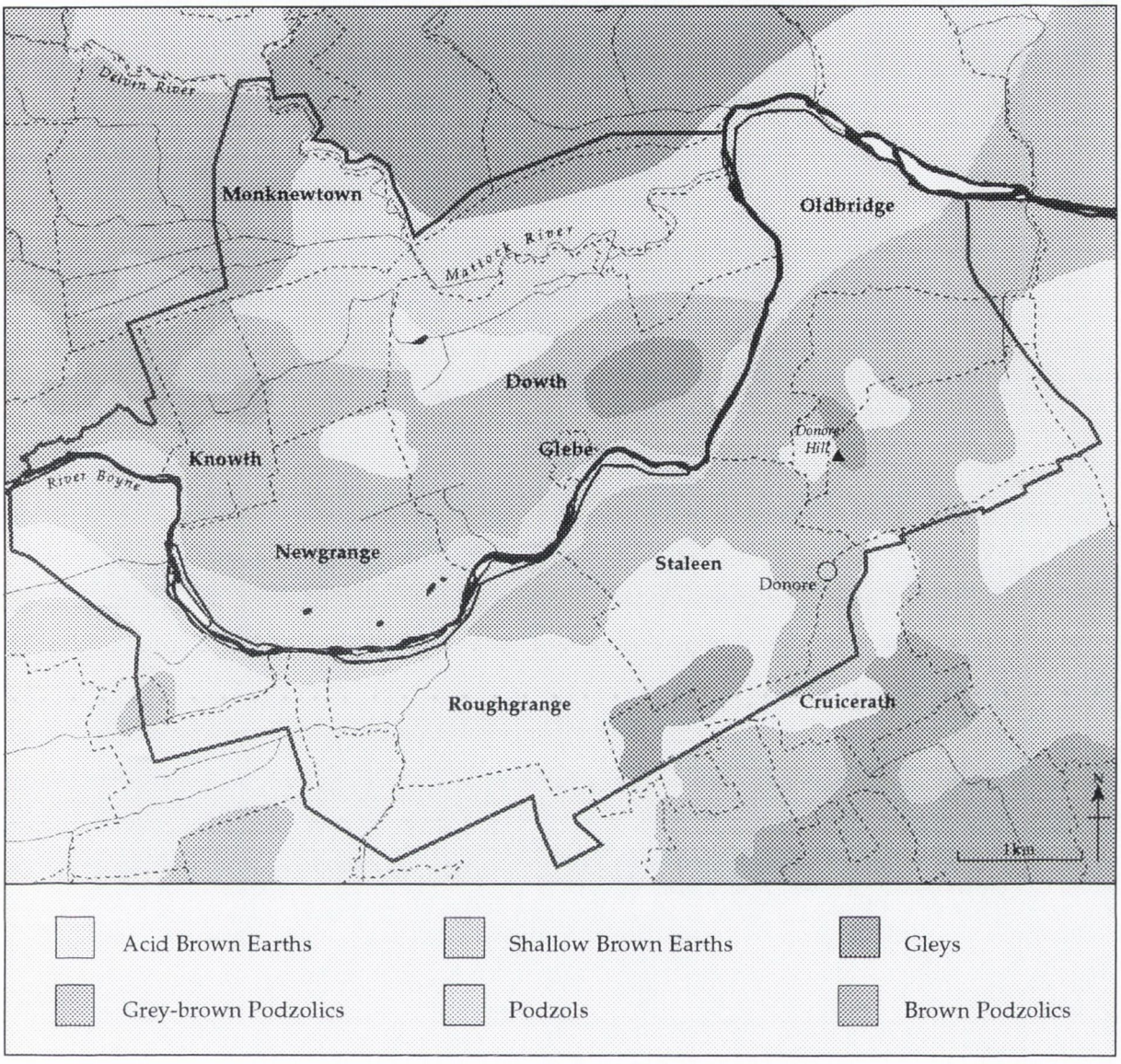


Fig. 2.6 Soils in the Boyne Valley Archaeological Park (after Finch, *et al.*, 1983).

associated with the Gulf Stream which helps to moderate temperatures; the average humidity is high and the prevailing winds are south-westerly to north-westerly.[42] Because of its coastal position this area in winter enjoys higher air temperatures than inland areas.[43] The nearest stations which record temperature in the vicinity to the Bend of the Boyne are at Dublin airport and Warrenstown Agricultural College.[44] For the period 1931-1960, the mean air temperature in January was 4.7°C (Dublin) and 3.8°C (Warrenstown). Temperatures rise to 15.0°C (Dublin) and 14.8°C (Warrenstown) for July and August. It rains most in December, least in February and March.[45] However, the average annual rainfall figures (1951-1968) for Slane, county Meath is just 875mm.[46] This places the study area within the driest part of the country.[47] This favourable climate provided few obstacles to agriculture and settlement from Neolithic times onwards.

2F Natural Vegetation and Wildlife

The study area lies within the catchment area of the Boyne and provides varied habitats for vegetation, especially on the floodplain of the river. The Boyne wetlands harbour many forms of wildlife. Seasonal floodwaters cover it in the winter and coarse vegetation traps enriching silt and encourages accretion. In summer it dries out sufficiently to allow grazing, while its ditches support a diverse aquatic and avian life. Green algae and mosses are a natural feature of the river. The National Parks and Wildlife Service (NPWS), Department of Arts, Heritage, Gaeltacht and the Islands, is charged with the preservation and maintenance of habitat sites here. Along this stretch of the river, they have designated four areas of scientific value as Natural Heritage Areas (fig. 2.7).[48]

Crewbane Marsh (NHA 00553) is a small area of freshwater marsh which occurs on a very wet alluvial floodplain along the north bank of the river. It contains one of the last remaining examples of floodplain marsh on the banks of the Boyne. The main habitat is the freshwater marsh dominated by yellow flag, creeping bent, reed grass, marsh bedstraw and water forget-me-not. In the wetter areas of the marsh, common meadow-rue is found. Between the marsh and river, there is a drier elevated area with wet grassland. The south facing slope above the marsh is covered by deciduous woodland dominated by ash, sycamore,

---

42. J. Houghton (ed.), *Atlas of Ireland* (Dublin, 1978) p. 32

43. P. Rohan, *The climate of Ireland* (Dublin, 1986), p. 18.

44. Finch, *et al.*, p. 8.

45. *Ibid.*, p. 7.

46. *Ibid.*, p. 6.

47 J. Houghton (ed.), *Atlas of Ireland*, p. 32.

48. Information provided by the National Parks and Wildlife Service, 51 St Stephen's Green, Dublin 2.

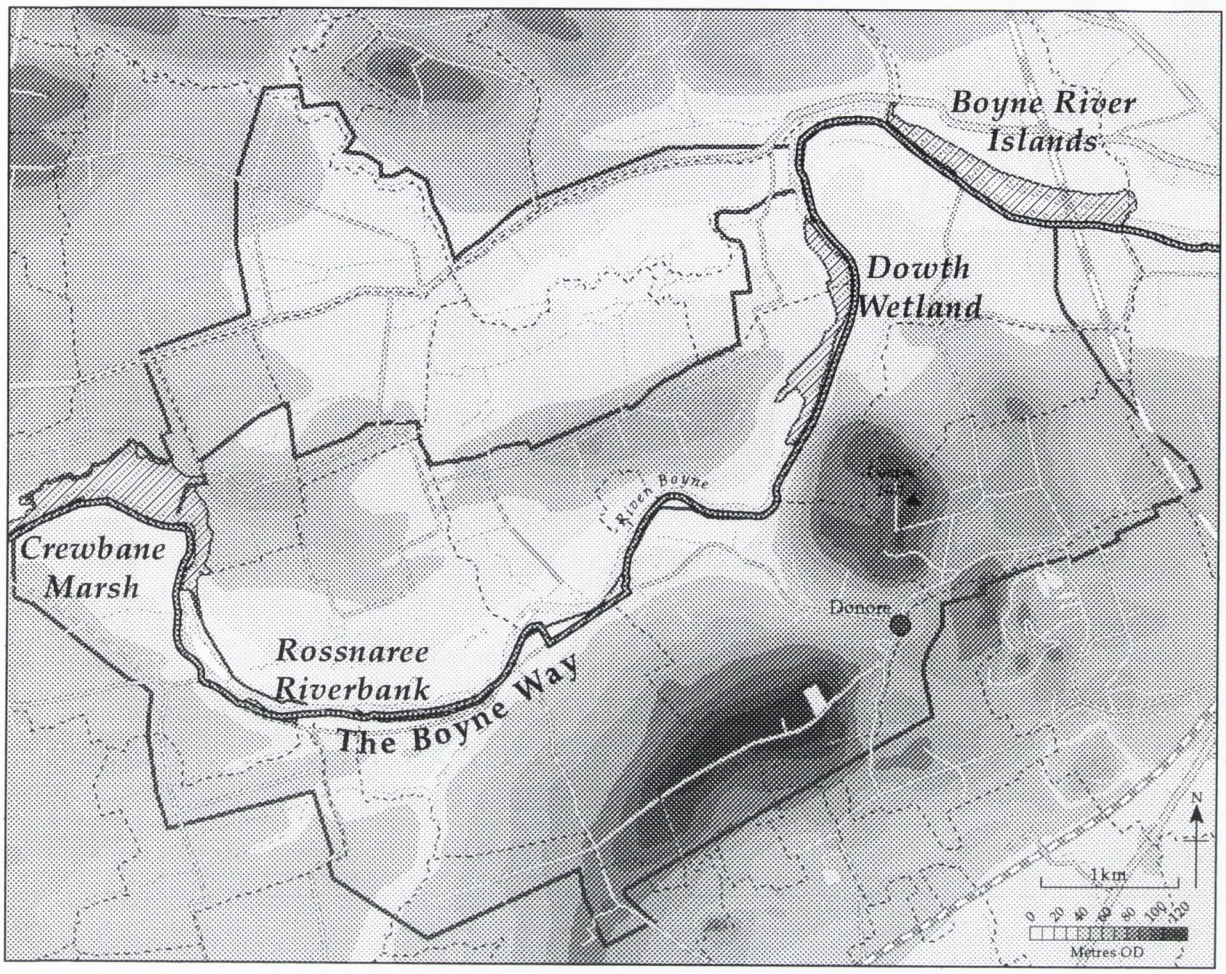


Fig. 2.7 Natural Heritage Areas (NHAs) in the Boyne Valley Archaeological Park.

hawthorn, blackthorn and elder. This area of deciduous woodland is one of the best examples in the Boyne valley. Animal life in the woodland is relatively rich with fox, badger, stoat, red squirrel and grey squirrel. Pine marten and otter have also been recorded.

Rossnaree Riverbank (NHA 01589) is a small site on the banks of the Boyne. It is of national scientific interest due to the presence of round-fruited rush. This rare plant is only found in three counties in Ireland and it was first recorded in Ireland at Rossnaree. It is found in alluvial pasture with yellow flag, creeping buttercup and perennial ryegrass.

Dowth Wetland (NHA 01861), along the north bank of the Boyne, is an area of floodplain marsh with an associated area of deciduous woodland on steep slopes. The main canopy species include the woodland ash, sycamore, hazel, lime, beech, cherry laurel and bird cherry. This site is the finest remaining example of a floodplain marsh on the river Boyne. Because it is not grazed, it is in exceptional condition. A small herd of red deer graze here. The main area of freshwater marsh is dominated by canary reed-grassland, marsh bedstraw, reed grass and meadow-sweet. Sedges are common. Fen bedstraw, a rare species, is also found here.

The Boyne River Islands (NHA 01862) is another area where species rare in Ireland are found. They are a small chain of three islands formed by the build-up of alluvial sediment in this sluggish part of the river. The islands are covered by dense thickets of wet, willow woodland composed of the following species; willow, osier, crack willow, white willow, purple willow and grey willow. The NPWS are also responsible for identifying Special Areas of Conservation (SACS) under European Habitats Directive (92/43/EEC) and the Boyne River Islands have been so designated. These are nationally significant ecosystems with protected species locations and natural history sites (fig. 2.7).

The Boyne island's willow has been used for basket, mat and coracle making in the Oldbridge area. This type of alluvial woodland is scarce in the country. It is notable for its natural, unmodified condition and diversity of willow species. The site includes an area of wet grassland found along the riverbank to the north of the islands. This grassland is dominated by soft rush and hard rush with creeping buttercup, red fescue, creeping bent and marsh thistle. In places, this wet grassland grades into freshwater marsh, which supports a diverse assemblage of sedge. At the water's edge, there are tall plants such as reeds (in gravelly areas), horsetail and common club-rush which are used in rushwork. Between the reedswamp and dry land sedge and purple loosestrife flourish. In summer, birds such as coot, mallard, water hens and swans disappear into these reedswamps.

The edge of the river attracts kingfishers and herons to the minnows or pinkeens that collect there. There is a large otter community on the river islands

and the south bank of the river at Rossnaree. Since the passing of the Wildlife Act in 1976, the otter has been a fully protected species. This species (*Lutra lutra*) of otter has a range that stretches from the Atlantic coastline, across Europe and Asia. Because their numbers are declining in Western Europe, Ireland has an otter population which is of international importance.[49]

In the winter, the flood plains of the lower Boyne are home to migrating water fowl populations, particularly the whooper swans that come to the callows below Newgrange every year. These have inspired many legends associated with the Boyne Valley. The whooper (*Cygnus cygnus*) have their breeding grounds in Iceland and are distinguished among the northern swans by their yellow bills and a trumpet-like call; in their wintering areas, they consume aquatic plants such as pondweeds, but they can also graze on winter wheat, waste grain, turnips and potatoes.[50] Their numbers have decreased considerably over the last few years at Newgrange. They are not encouraged to settle on the pools in the Newgrange callows by the landowner who has developed a winter duck shoot on the lands.

The submerged banks of fine gravel and silt provide a habitat for the mayfly, a great gift to the Boyne anglers. Accordingly, the Boyne has always been an important river for salmon if not the best in the country. The Boyne salmon is short for its size, deep shouldered and shaped like a bow. It is exceptionally strong – 'as strong as a horse and never out of season' it is said locally. Many myths have given prominence to it. It is featured in local traditional stories relating to Fionn MhicCumhaill who was said to have gained his wisdom upon tasting a magic salmon taken from the Boyne. Amongst the traditional *buadha*, or prescriptions of the High King of Ireland for a good life without misfortune, was the salmon of the Boyne, consumed at the annual festival of Lughnasa. The great and wise King Cormac MacAirt died of an obstruction of the throat caused by a salmon bone.[51]

Wild salmon fishing on the Boyne is a seasonal activity running from February to September. The salmon swim up the Boyne to spawn in August, September and October, as the floods favour. Once spent, the exhausted kelts drift downstream to the sea where they may feed again. Their predators include eels, kingfishers, herons and mink (an unfortunate recent escapee into the area). The salmon's main feeding grounds are in Greenland; the female fish returns there towards the end of December. The fry are conducted to the sea by the male and

---

49. R. Lunnon, 'Ireland: the last stronghold of the European otter' in P. Nugent (ed.), *Natural Heritage* (Longford, 1991), pp 117-9; See also Nano Reid's drawing of 'waterhens at the river's edge' in E. Hickey, *I send my love along the Boyne* (Dublin, 1966), p. 11.

50. P. Lack, *The atlas of wintering birds in Britain and Ireland* (Staffordshire, 1986), p. 66.

51. A. Went, 'Material for a history of the fisheries of the river Boyne' in *J.R.S.A.I.*, xiii (1953), pp 18-33; G. Stout 'Fishing at Brú na Boinne' in *Brú na Bóinne*, pp 34-35;

reach the estuary as smolts. The smolt goes to sea for a year and then returns to the river where it had been spawned.

Since the early nineteenth century, Atlantic salmon stocks have come under increasing pressure from industrial and commercial sources. Today, most salmon is caught within drift nets offshore (68%), with inshore draft nets (28%) and anglers (7%) taking a smaller share. The traditional quality of the Boyne salmon fishery was badly degraded by a destructive arterial drainage scheme commencing in the late 1960s and continuing into the mid 1980s. This largely destroyed the natural habitat and in many cases fundamentally altered the topography of the banks, thus impeding access.[52] Its impact is lamented by Trim angler Jimmy Reynolds in his memoir *Life on the Boyne*.[53] This arterial drainage scheme was not undertaken in the lower Boyne Valley but the works upstream impacted on water levels and fish quality and quantity.

The Boyne has been designated as a salmonoid river under an EU Freshwater Fish Directive and given effect in Irish law under an act passed in 1988.[54] Three official bodies are involved in administration of the Fisheries on the Boyne; the Department of Marine, Central Fisheries Board, and the Eastern Regional Fisheries Board (ERFB).[55] The ERFB has responsibility for the management, conservation, protection, development and improvement of the inland fisheries in their region and for the development of angling. It consists of representatives from local fishing interest groups, with some appointments by the Minister of the Marine. The ERFB have been involved with the protection of spawning grounds, pollution control, development of local projects and has been liaising with the OPW in respect to post-drainage rehabilitation. Both the Central and Regional Fisheries Boards are responsible for advising the Minister in respect of the designation of appropriate sites for riparian (river bank) zones under REPs to protect important fishing rivers, streams and lakes. There is currently £20 million available nationally under the Tourist Angling Measure of the Operational Programme for Tourism, to implement work on fisheries restoration and development programmes. Sections of the Boyne Valley Archaeological Park are eligible for funds under the programme for Peace and Reconciliation and under the INTERREG Programme. Funding has been received for fisheries through the European Social Fund with the aid of FÁS Schemes.[56]

---

52. J. Reynolds, *A life on the Boyne* (Trim, 1984).

53. *Ibid.*

54. Brady, Shipman and Martin, *Boyne Valley Integrated Development Plan* (Dublin, 1996), pp 16-17; 78/659/EEC, SI 293

55. *Ibid.*, pp 6-17.

56. *Ibid.*, p. 18.

2G Summary and Conservation Statement

The physical processes of glaciation and deglaciation which transformed this landscape during the last Ice Age have left their imprint on the landscape in the form of terminal moraines, terraces and soil cover. This suite of landforms and sedimentary structures allow us to reconstruct the events which took place during glaciation. Further, these glacial features represent an important physical resource and can aid public understanding of the physical evolution of the area. This story can be told through exhibitions in the visitor centre, guided field walks in the area, or sign posting and booklets such as the recently published field guide for the Boyne valley. Fossil rich rock outcrops, gravel pits and section faces have been identified and these could be made accessible as a teaching resource.[57]

In order to avoid any further visual scarring of this landscape, it is imperative that no existing quarries or gravel-pits should be re-activated, or new gravel workings opened. However, quarrying still poses a serious threat to this area. In 1989 permission was given by Meath County Council to Irish Cement for a shale quarry and settling ponds in Donore within the Boyne Valley Protected Area. This went ahead despite the fact that the Meath Development plan identified this area as an area of high amenity, an area of natural beauty and a 'special area of historic importance'. In a further planning appeal, Bord Pleanála considered the proposed site marginal in terms of its visual quality and in terms of its amenity value, which was narrowly identified as the passage tombs of Knowth, Dowth and Newgrange only.[58] The significance of this ruling for landscape conservation is that the Meath Development Plan did not set out to limit development in these areas identified as protected and that a precedent has been set to allow quarrying in the park/protected area. There are sufficient shale deposits for at least twenty-five years at Donore. It is important that there are no further extensions in any direction when this intrusive quarry is exhausted.

Mining exploration licences for lead and zinc have been taken out at various times for large areas surrounding and including the study area but none have been worked. The Heritage Services should be informed in advance when such drilling take place, particularly when they are in close proximity to archaeological sites. Even if metals are found no excavation should be permitted in the protected area.

The Boyne wetlands in the Bend of the Boyne are a nationally important habitat for flora and fauna containing some of the last remaining examples of flood plain marsh on the banks of the Boyne, the best deciduous woodland in the

---

57. On a visit to Custer State Park in South Dakota in 1998 I was impressed by the use of roadside sign posts to identifying and date geological strata. Such an approach could be adopted to highlight places of geological significance within the study area.

58. Meath County Council, PL 17/5/74394.

valley, nationally rare plants and the river islands which are of European importance because of the presence of alluvial woodland. These areas are protected under the Wildlife Act of 1976.[59] Fortunately, four areas along the river Boyne are protected as Natural Heritage Areas and management plans have been proposed for each of these sites by the Parks and Wildlife Service. However, the legal standing of these designations has yet to be tested in the Irish courts. Incredibly, in spring 1999 the ESB cleared trees from one of these islands during preliminary works for a new bridge across the Boyne. The question remains; why were they not stopped or prosecuted.

The Natural Heritage Areas (NHAs) lie along the banks of the Boyne and are either accessible or visible from the 'Boyne Way', an established walk that runs along the canal towpath from Drogheda and Navan. Information in the form of notice boards and/or pamphlets could be placed locally to inform an interested public of the natural heritage of the valley.

The greatest single threat to wildlife in the Bend of the Boyne is faced by the waterfowl population, incredibly denied the wetland habitat on which they utterly depend.[60] The callows at Newgrange should be legally protected and developed as a reserve for the whooper swan. The shooting season should also be modified so as not to disrupt the migrating populations. This could involve management agreements between the Parks and Wildlife Service and the landowners of the callows area.

59. Government of Ireland, Wildlife Act, 1976, no. 39.

60. G. Atkinson-Willes, 'The numerical distribution and the conservation requirements of swans in north-west Europe' in Anon., *Second Internations Swan Symposium* (Japan, 1980), pp 40-8.

CHAPTER 3
PREHISTORIC LAND USE IN THE BEND OF THE BOYNE

3A Introduction

The prehistoric component of the Boyne valley landscape has a high public profile and has been the subject of intensive research over the last fifty years, focused on a selection of internationally famous sites including Knowth and Newgrange. The Bend of the Boyne is the most extensively excavated area in Ireland (fig. 3.1). Knowledge of prehistoric land use in the Boyne valley has increased dramatically as a result: these excavations have highlighted the international value of its archaeological monuments and resulted in the designation of the area as a World Heritage Property (WHP) in 1993.

Research has concentrated on individual sites rather than on the relationship of sites within the broader landscape. An ever-growing, but scattered body of data (excavation reports form the primary source material) demands an overall assessment to identify the implications of these discoveries for landscape conservation policy. This assessment will identify critical landscape features and buried sites of prehistoric date. It will help to predict archaeologically sensitive areas where future discoveries are likely to occur. In addition it provides more comprehensive information for presentation to the public in the Boyne valley visitor centre and in relevant publications. Management of this protected area is best achieved from a position of knowledge: and an overall assessment of the new data will pinpoint the 'gaps'. It should also facilitate an integrated research programme in the future.

As the passage tombs are the main reason for the designation of this site as a WHP, attention is given to the nature of the tombs and the societies which built them. On the basis of this detailed assessment, the conservation issues of managing this rich cultural legacy will be outlined. The chapter thus divides into five sections. The first four discuss significant phases in prehistoric land use of the area during the Mesolithic (B), Neolithic (C) Late Neolithic/Early Bronze Age (D) and Middle Bronze Age (E). The final section analyses the conservation issues arising from such a wealth of early archaeology (F).

3B Mesolithic settlement

The earliest evidence for a human presence in the Bend of the Boyne was identified during post-excavation analysis in the early 1980s of the finds from the excavation of the Late Neolithic/Beaker levels at Newgrange. Amongst this assemblage, archaeologist Daragh Lehane identified Bann flakes which are leaf-shaped flint flakes that have been trimmed at the butt (fig. 3.2, inset). This culturally diagnostic tool has long been associated with pre-farming communities

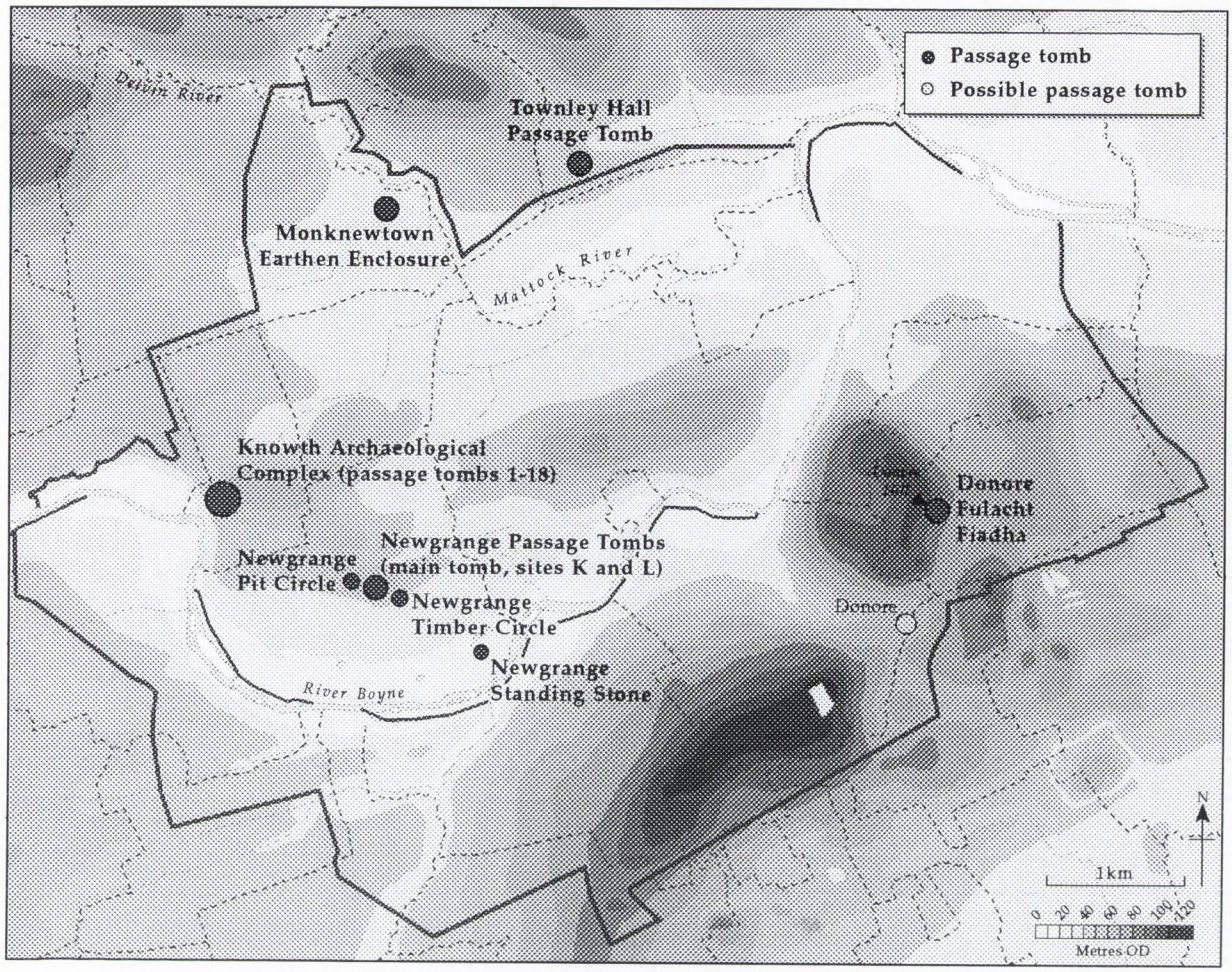


Fig. 3.1 Extent of archaeological excavations in the The Boyne Valley Archaeological Park.

in the valley of the Bann, where they were used as fishing, cutting, sawing and whittling tools in Later Mesolithic times.[1] Lehane also noted the possible survival of Mesolithic flint working techniques in some of the Late Neolithic/Early Bronze Age stone tools from Newgrange, especially microlithic forms and borers thought to have been used for piercing some comparatively soft substance.[2] These tools had been made from flint pebbles collected locally in the flint-rich glacial drift which covers much of the Bend of the Boyne (see chapter 2).

Although this evidence for Later Mesolithic activity from Newgrange was not considered conclusive at the time by the wider archaeological community, there is every reason to believe that there was a sizeable hunter-gathering community in the Bend of the Boyne, given the area's rich natural resources, its proximity to other Mesolithic coastal communities in neighbouring Louth and Dublin and following promising results from a recent fieldwalking project.[3] The lower Boyne valley is typical of locations chosen by these early communities: proximity to water – in coastal, lakeside or riverside settings – is a locational feature of 72% of the Mesolithic sites in Ireland.[4] These areas had a rich and diverse annual food supply. The Boyne was able to supply copious salmon and eels – an important component in the diet of the first hunter-gathering communities, given the limited range of mammals then present in Ireland. Excavations of Mesolithic settlements at Mount Sandel established that fish loomed large in the diet of this early community as a resource that could be exploited for much of the year. Many Later Mesolithic artifacts were probably woodworking tools used for making traps, particularly those used in fishing.[5]

Pollen and seed analysis from soil samples removed from the Knowth excavations indicates that the Bend of the Boyne was a heavily forested area during the Mesolithic period. Oak and elm on the higher ground was flanked by hazel, with birch and alder in the valley bottom.[6] The river banks presented a break in this heavily forested landscape. Further, the presence of water and adjacent vegetation in the Boyne valley attracted mammals to come out of the forest cover. Analyses of animal bones from the 1963-77 excavations at the

---

1. D. Lehane, 'The flint work' in M. O'Kelly, R. Cleary and D. Lehane (ed.), *Newgrange, county Meath, Ireland* (Oxford, 1983), pp 118-70, see pp 144-6.

2. *Ibid.*, pp 150-3.

3. V. Buckley and P. Sweetman, *Archaeological survey of county Louth* (Dublin, 1991), pp 15-16; G. Stout and M. Stout, 'Patterns in the past: county Dublin 5000BC-1000AD in F. Aalen and K. Whelan (ed.), *Dublin from prehistory to present – studies in honour of J. H. Andrews* (Dublin, 1992), pp 5-25, see pp 5-6; G. Cooney, The Red Mountain transect: the results of a pilot fieldwalking study in the Boyne Valley area (unpublished Dúchas report, Dublin, 1998).

4. G. Cooney and E. Grogan, *Irish prehistory: a social perspective* (Dublin, 1994), p. 13.

5 P. Woodman and E. Anderson, 'The Irish Later Mesolithic: a partial picture' in P. Vermeersch and P. Van Peer (ed.), *Contributions to the Mesolithic in Europe* (Leuven, 1990), pp 377-87, see p. 387.

6. W. Groenman-van-Waateringe, 'Pollen and seed analyses' in G. Eogan, *Excavations at Knowth I* (Dublin, 1984), pp 325-8.

perimeter of Newgrange revealed the presence of red deer, the most important game animal on Irish Mesolithic sites.[7] Within a ten kilometre radius of Newgrange, one hundred red deer could have been killed annually.[8] Other species in this animal bone collection from the old ground level at Newgrange included brown bear, hare, possibly a wild boar, wild cat and fox. Evidence from other Mesolithic sites indicate that hare and wild cat were occasionally hunted, but they did not constitute a regular food resource and may have been hunted for their skins. A wide variety of birds was also represented including: goshawk, a wild bird of prey usually found in deciduous woodland which may have bred in the Boyne valley in prehistoric times; the water-rail, a resident or winter visitor which haunts swampy places; the woodcock, a winter visitor; and the pied wagtail.[9] The presence of older dog bones at Newgrange suggests that dogs were used in hunting.[10]

The most prominent aspect of Mesolithic culture is technical mastery in the production of stone tools. The prehistoric lithic material contained in the ploughsoil of the Boyne valley offer our best guide to understanding the extent of Mesolithic settlement in this intensively farmed area. Systematic fieldwalking of ploughed field surfaces is widely recognised internationally as an essential archaeological technique in the location of prehistoric settlements.[11] In this decade a number of field-walking projects have been implemented in Ireland, for example at Ballylough (county Waterford), the Barrow valley, Salterstown and Mount Oriel (county Louth).[12] Gabriel Cooney has supervised postgraduate research projects in the Fourknocks area (county Meath), Barnageera and Bremore (north county Dublin), and Greystones (county Wicklow).[13] Because

---

7. L. van Wijngaarden-Bakker, 'The animal bones from the Beaker settlement at Newgrange, county Meath: first report' in *R.I.A.Proc.*, C, lxxiv (1974), pp 313-83, see pp 353-4.

8. L. van Wijngaarden-Bakker, *An archaeological study of the Beaker settlement at Newgrange, Ireland* (Amsterdam, 1980), p. 185.

9. L. van Wijngaarden-Bakker, 'The animal remains from the Beaker settlement at Newgrange, county Meath: final report' in *R.I.A.Proc.*, C, lxxxvi (1986), pp 2-111, see p. 80.

10. Wijngaarden-Bakker, 'Animal bones from the beaker settlement', p. 344.

11. A. Schofield (ed.) *Interpreting artefact scatters: contributions to ploughzone archaeology* (Oxford, 1991); J. Steinberg, 'Ploughzone sampling in Denmark: site signatures from disturbed contexts' in *Antiquity*, lxx (1996), pp 368-92.

12. For Ballylough, see M. Zvelebil, M. Moore, J. Green and D. Henson, 'Regional survey and the analysis of lithic scatters: a case study from south-east Ireland' in R. Conway, M. Zvelibil and H. Blankholm (ed.), *Mesolithic north-west Europe: recent trends* (Sheffield, 1987); for the Barrow Valley, see M. Zvelibil, M. Mackin, M. Passmore and P. Ramsden, 'Alluvial archaeology in the Barrow valley, south-east Ireland: the Riverford culture re-visited' in *Journal of Irish Archaeology*, vii (1996), pp 13-40; for Salterstown, see D. Hodgers, 'The Salterstown surface collection project' in *Louth Archaeological and Historical Society Journal*, xxiii (1994), pp 240-68; for Mount Oriel, see G. Cooney, 'The Mount Oriel project: an introduction in *Louth Archaeological and Historical Society Journal*, xxix (1990), pp 125-33.

13. For Fourknocks, see S. Cross, An intensive survey of the early prehistoric archaeology in the environs of Fourknocks, county Meath (unpublished MA thesis, Department of Archaeology, NUI Dublin, 1991); for Barnageera, see B. Guinan, 'Fieldwalking in Irish archaeology' in *Trowel*, iii (1992), pp 4-8; for Greystones, see S. Cafferkey, Prehistory of the ploughzone in north-east county Wicklow (Unpublished MA Thesis, Department of Archaeology, NUI Dublin, 1996).

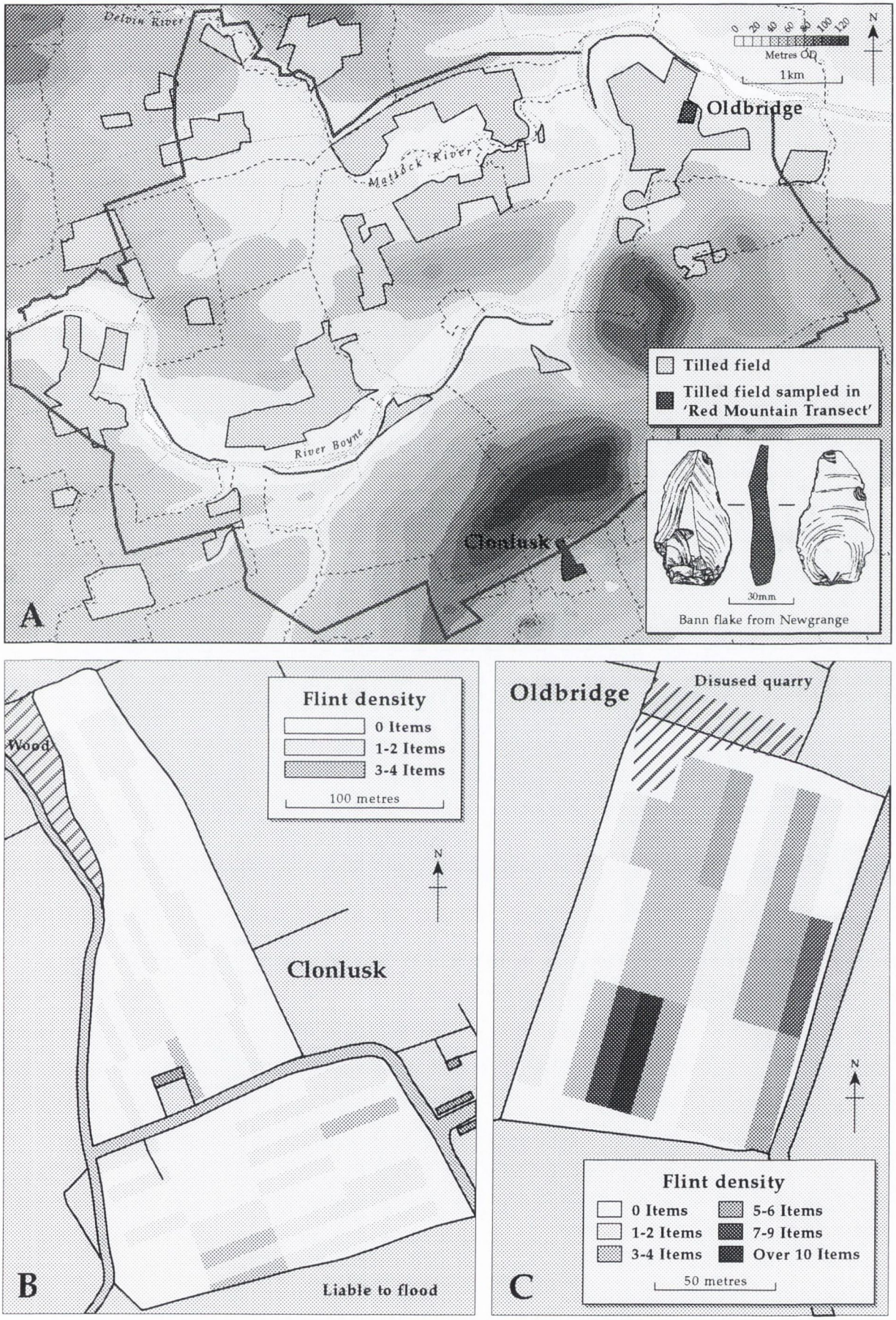


Fig. 3.2A Tillage in the Boyne Valley Archaeological Park 1990 based on aerial photography. 14.5% of the park area was tilled in that year. A Bann flake from Newgrange is shown (inset, after Lehane, 1983). Fig. 3.2B Fields sampled in Clonlusk townland (after Cooney, 1998). Fig. 3.2C Field sampled in Oldbridge townland (after Cooney, 1998).

substantial areas within and around the Bend of the Boyne are under tillage, systematic field survey could be used to identify lithic evidence for Mesolithic communities in the ploughzone (fig. 3.2A). Non-systematic fieldwalking in the Boyne Valley has indicated significant qualities of prehistoric material in the ploughzone.[14]

In Spring 1997, a pilot fieldwalking survey evaluated the potential of ploughzone archaeology in the Boyne Valley area (fig. 3.2A-C).[15] The study area formed a transect across the Boyne river, incorporating part of the Bend of the Boyne case-study area. Within this 'Red Mountain Transect', thirteen fields were sampled, including four fields in the townlands of Clonlusk and Oldbridge.[16] The methodology used was to systematically sample the surface of the ploughzone. The range of material from each field was broken down into separate types which were then grouped to indicate the stage in human use of this resource that the types represent. All the walked fields produced evidence for prehistoric stone-working in varying densities. The lithic material collected included debris resulting from the preparation and production of flint tools together with a range of finished examples, including a hollow-based arrowhead, scrapers, blades and a perforator.

These diagnostic tools indicate that this activity spanned at least the Later Mesolithic, the Neolithic and the early Bronze age. Yet there was no evidence of any surviving, upstanding traces of prehistoric sites in any of the fields walked. Flint concentrations were however noted, which could be tested in future fieldwork for settlement remains. Cooney has recommended that the cultural material in the ploughzone be treated as an important archaeological resource: any developments in the area involving the removal of these deposits should be assessed as part of a mitigation process.[17] Not to do so would surely inhibit our understanding of the Mesolithic in this area.

3C Neolithic landscape

This section is in two parts. The first examines evidence for pre-tomb Western Neolithic activity (3Ci) while the second looks at the passage tomb culture and associated Neolithic farming (3Cii).

---

14. M. O'Kelly, 'Surface collected flints from two sites in the Boyne valley, county Meath' in *Journal of the Cork Historical and Archaeological Society*, lxxiii (1968), pp 114-9; C. Brady, 'Surface collected flint from Site A, Newgrange, county Meath' in *Trowel* , vii (1996), pp 41-5.

15. Cooney, 'Red Mountain transect'.

16. *Ibid.*, for Clonlusk, see pp 31-36; for Oldbridge, see pp 55-60.

17. *Ibid.*, p. 16.

3Ci – Pre-tomb Western Neolithic The earliest *conclusive* evidence for human activity recorded in the Bend of the Boyne is derived from the ridge on the north bank of the river Boyne, focused at Knowth and Newgrange where there has been a programme of excavations for the last fifty years. Pre-tomb activity of a later date has also been identified at Townleyhall immediately north of the study area (see below). This settlement evidence had been fortuitously sealed when the passage tombs at these sites were built. The pre-tomb settlements have been dated to a distinct phase of human activity in the Bend of the Boyne – the earlier Neolithic period – between 3900BC and 3500BC.[18] The presence of sheep and cattle bones and cereal grains indicates that the occupants practised mixed farming in the environs of their homes. These remains represent the homesteads of the first farming communities to permanently settle in this part of the Boyne valley.

At Knowth, the settlement was extensive and prolonged.[19] Two phases of building have been identified, differentiated by archaeologists on the basis of pottery styles; the earliest are the remains of three houses built around 3,900BC, two of which extended beneath the mound of the main tomb. These timber houses had a simple rectangular ground plan and a single entrance. The occupants used flint tools and undecorated pottery.[20] Hazelnut shells, and charred remains of emmer wheat, barley and oat were found in the foundation trenches of one house.[21] The second stage of house building at Knowth took place around 3,500BC. Two houses were found in the western area of the main passage tomb, one beneath one of the smaller satellite tombs, the other underlying the passage of the western tomb of the main mound.[22] The latter, which was recently found to the rear of the entrance stone, was sealed with a thick natural sod layer. This layer was contemporary with the original ground level on which the large tomb was built. The stratigraphical sequence therefore showed that this house had been abandoned for a considerable time before the tomb was built. A range of stone tools (flint scrapers, blades and decorated, shouldered bowls) were found amongst the remains of this house. These houses were protected in prehistoric times by a large palisaded corral.

The second focus for pre-tomb activity in the Bend of the Boyne was again on the summit of this ridge but further east at Newgrange. Removal of the smaller

---

18. E. Grogan, 'Appendix: radiocarbon dates from Brugh na Boinne' in G. Eogan, 'Prehistoric and early historic culture change at Brugh na Boinne' in *R.I.A.Proc.*, C, xci (1991), pp 126-7.

19. G. Eogan, 'Prehistoric and early historic culture change at Brugh na Boinne' in *R.I.A.Proc.*, C, xci (1991), pp 105-132, see pp 107-8.

20. H. Roche, 'Prehistoric settlement in Brú na Boinne' in *Brú na Boinne;* supplement to *Arch. Ir.*, xi (1997) pp 28-29; G. Eogan and H. Roche, *Excavations at Knowth II* (Dublin, 1997), pp 7-16.

21. B. Collins, 'Appendix 3: plant remains' in Eogan and Roche, *Excavations at Knowth II*, pp 295-300.

22. G. Eogan, *Excavations at Knowth I* (Dublin, 1984), pp 211-44; G. Eogan and H. Roche, 'Pre-tomb Neolithic house discovered at Knowth' in *Arch. Ir.*, xi (1997), p. 31.

passage grave mound (Site L) immediately west of the main tomb exposed habitation material that was sealed by and extended beyond the mound. A stake hole and areas of burning indicated a probable cooking pit. Hollow scrapers and undecorated shouldered bowls were found at the site.[23] The pottery was similar to that found at the neighbouring houses in Knowth. Excavations of a small passage tomb (Site Z) east of the main mound at Newgrange also revealed pre-tomb activity comprising a hearth, a setting of cobbles, several postholes associated with flint chips, a hollow-based arrowhead, scrapers, a stone axe and animal bone.[24]

Clusters of timber houses and evidence for agriculture suggests a permanency about this early farming settlement in the Bend of the Boyne. This is all the more striking when placed in the context of the initiation of farming in Ireland, the dates for which have been established at *c.*4,200BC.[25] These early pioneering communities successfully exploited the rich soils of their immediate environment and took advantage of the benign, long, grass growing season to rear their cattle and sheep. The local forests provided the hardwoods needed for their house building and palisades. These pre-tomb settlements in the Bend of the Boyne are also strikingly similar to structures and cultural assemblages from other Neolithic domestic sites recently discovered in county Meath (at Newtown, near Nobber) and in other parts of the country.[26] This growing evidence substantiates the development of a 'mosaic' landscape in early Neolithic Ireland made up of dispersed yet contemporary pioneering communities.[27] Indeed the cultural traits of these early farming communities have been identified futher afield in Great Britain and Europe, suggesting a broad Atlantic culture. The new species of cereals and animal stock are non-native to the Bend of the Boyne and had to be brought into the country, presumably from the western shores of Britain or directly from Atlantic Europe. The similarity in cultural traits suggests that the earliest communities probably came from Britain: the pottery is of a style that has been identified there.[28] Despite the influx of people and animal, Mesolithic flint working techniques and tools in later tool assemblages suggest some continuity with the Mesolithic population.

---

23. M. O'Kelly, F. Lynch and C. O'Kelly, 'Three passage graves at Newgrange, county Meath' in *R.I.A.Proc.*, C, lxxviii (1978), pp 249-352, see pp 263-9.

24. *Ibid.*, pp 293-7.

25. F. Mitchell and M. Ryan, *Reading the Irish landscape* (Dublin, 1997), pp 155-60.

26. M. Gowan, 'A Neolithic house at Newtown' in *Arch. Ir.*, vi (1992), pp 25-7.

27. F. Mitchell, *The Irish landscape* (Cork, 1976), p. 104.

28. Eogan and Roche, *Excavations at Knowth II*, pp 25, 42.

3Cii – The passage tomb builders During the Neolithic, a group of people settled in the Boyne valley who were united by a religious belief and a spiritual vitality that had taken hold of much of the western fringes of Atlantic Europe. Their ideological identity was expressed in their mortuary ritual, a tomb architecture embellished with art, and a particular set of grave goods deposited with the burials which indicated a hierarchical society. Their burial tombs are the oldest surviving monuments in the Boyne valley today. These round, stone-kerbed mounds dominate the ridge top and south-facing slopes which run between the rivers Boyne and Mattock. Various figures have been given for the total number of passage tombs in the Bend of the Boyne: figures of 'up to', 'about', and 'almost' forty sites have been offered. Incredibly, no published map identifies all the sites; even the current Record of Monuments and Places has excluded some examples.[29] Thirty-one definite and nine possible passage tomb sites can be identified in the Bend of the Boyne (fig. 3.3, table 3.1).[30]

Passage tombs are found throughout the Bend of the Boyne and there is a sense of order and formality in their arrangement in the landscape. They appear in clusters or cemeteries built on the most prominent knolls, with the smaller mounds arranged around the three largest sites; a circular pattern exists at Knowth, a linear one at Newgrange, and a dispersed one at Dowth.[31] Their densest concentration is around the main mound at Knowth at the western edge of the ridge. These 'cathedrals of the megalithic religion' have thus had a more profound impact on the landscape than any other ideological force in the history of this valley, creating a 'sacred landscape' which still attracts an international audience five thousand years after they were built.[32]

A long history of field survey in the Boyne valley allows a detailed insight into the architecture of these tombs and more detailed constructional detail is available for the twenty-five excavated tombs at Newgrange, Knowth and Townleyhall. The excavation reports reveal the care taken by the builders in every aspect of the tombs' construction which appears to have followed a prescribed pattern leading to a general morphological similarity. Burial chambers are entered off passages under a mound. The mounds are usually rounded but the larger sites at Knowth and Newgrange have a flattened profile. At Dowth and Newgrange the sides of the mounds were thought to have been nearly vertical.[33] This profile may have been maintained by a retaining wall as indicated at

29. Dúchas, Record of Monuments and Places, county Meath (unpublished Dúchas report, 1997).

30. This figure does not including the passage tombs Townleyhall I and II which are just outside the study area.

31. G. Cooney, 'The place of megalithic tomb cemeteries in Ireland' in *Antiquity*, lxiv (1990), pp 741-53.

32. O'Kelly, *Newgrange: archaeology, art and legend* (London, 1982), p. 122.

33. M. O'Kelly and C. O'Kelly 'The tumulus of Dowth, county Meath' in *R.I.A.Proc.*, C, lxxxiii (1983), pp 136-90, see p. 148.

Table 3.1
Passage tombs in the Bend of the Boyne

Passage tomb		SMR No.
Knowth 1	Main mound with cruciform and undifferentiated chambers	19:30
Knowth 2	Partial remains	19:30
Knowth 3	Possible site	19:30
Knowth 4	Partial remains with undifferentiated chamber	19:30
Knowth 5	Possible site	19:30
Knowth 6	Partial remains with cruciform chamber	19:30
Knowth 7	Reconstructed with undifferentiated chamber	19:30
Knowth 8	Partial remains with undifferentiated chamber	19:30
Knowth 9	Partial remains with cruciform chamber	19:30
Knowth 10	Partial remains with undifferentiated chamber	19:30
Knowth 11	Site	19:30
Knowth 12	Partial remains with undifferentiated chamber	19:30
Knowth 13	Reconstructed with undifferentiated chamber	19:30
Knowth 14	Reconstructed with undifferentiated chamber	19:30
Knowth 15	With undifferentiated chamber	19:30
Knowth 16	Reconstructed with undifferentiated chamber	19:30
Knowth 17	Reconstructed with cruciform chamber	19:30
Knowth 18	Reconstructed with cruciform chamber	19:30
Knowth	Possible site	Herity 1967, p. 141
Knowth	Possible site	Eogan 1986, p. 89
Newgrange 1	Main mound, reconstructed with cruciform chamber	19:45
Newgrange A	Circular, flat-topped mound	19:49
Newgrange B	Circular mound	19:58
Newgrange K	Partial remains with undifferentiated chamber	19:46
Newgrange L	Partial remains with cruciform chamber	19:46
Newgrange U	Kerbed mound	19:51
Newgrange Z	Partial remains with undifferentiated chamber	19:44
Newgrange Z[1]	Possible site, circular mound	19:44
Dowth	Main mound with cruciform and undifferentiated chambers	20:16
Dowth E	Round mound with berm and outer kerb	19:43
Dowth F	Circular mound	19:42
Dowth G	Possible site, elongated mound	19:41
Dowth H	Circular, kerbed mound	19:40
Dowth I	Kerbed mound	20:12
Dowth J	Chambered round mound	20:13
Dowth	Site, no precise location	Wilde, 1847, p. 210
Dowth	Possible site, round mound	20:23
Dowth	Site	20:09
Dowth	Possible site	C. O'Kelly, 1979, p. 59
Monknewtown	Round mound	19:17

Newgrange where the cairn above the kerb had been retained by means of a dry-stone wall.[34] The mounds are delimited by a series of kerbstones placed end to end set directly on the ground, their bases propped by packing stones. At Dowth and Newgrange Site E, a level space or berm occurs between the edge of the mound and kerbstones.[35] This berm can indicate the presence of a construction

34. M. O'Kelly, *Newgrange*, p. 73.

35. O'Kelly and O'Kelly, 'Tumulus of Dowth, p. 148; C. O'Kelly, *Illustrated guide to Newgrange and the other Boyne monuments* (third edition, Cork, 1978), p. 59.

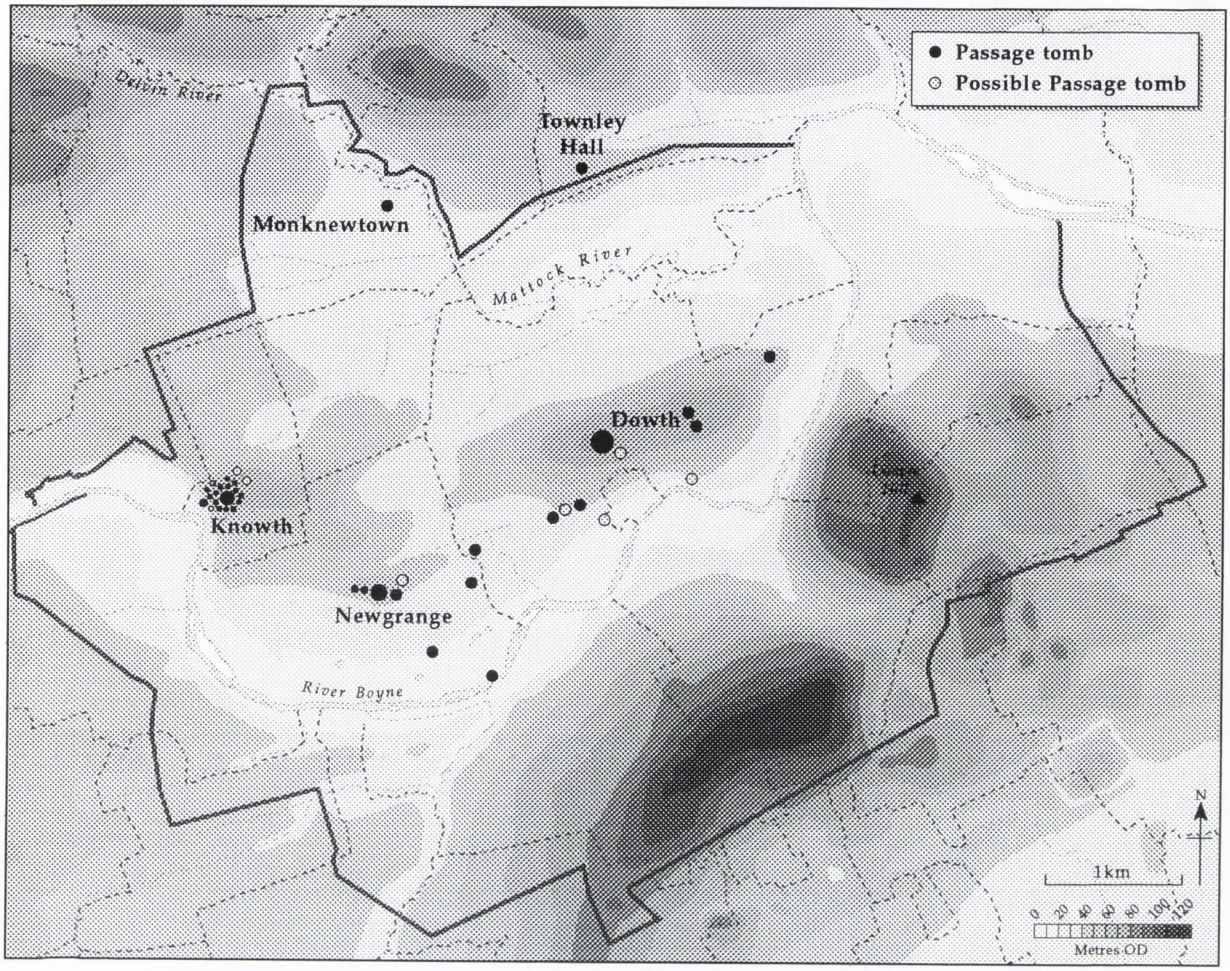


Fig. 3.3 Passage tombs in the Boyne Valley Archaeological Park.

ditch like the one discovered at Newgrange Site K.[36] The passages and chamber are constructed using large stones placed in an upright position.

The passages are roofed with lintels; a corbelling technique was used to construct the roofs of those with beehive chambers. It was very important for the tomb builders to seal the chamber area and keep it dry: at Newgrange Site 1, a core of water-rolled stones covered the chamber; the joints had been caulked and water grooves were incised into the stones to allow water to run off.[37] At Knowth Site 1, the area around the chamber of the eastern tomb was consolidated with a pile of stones, then covered by a thin spread of small flat stones, thus sealing the chamber.[38] At Newgrange Site L, a core of sand, covered by stone-capped turves, sealed the chamber. At Knowth Site 12, the tomb was enclosed in a oval-shaped core of stones.[39] At Knowth Site 15, a large core consisting of sods was built around the tomb retained by a stone setting.[40] Again, Townleyhall II had this 'protective crust' which kept the chamber dry.[41]

This inner core sealing the tomb chamber was then covered by a layered mound, comprising turves interspersed with boulder clay, shale and water-rolled stones in varying combinations. The exposed hollow in the mound at Dowth shows that it is made up of angular quarried stones rather than water-rolled stones as at Newgrange.[42] The layers of turves visible at Knowth and Newgrange were used to retain the completed mound or a particular phase in tomb construction. This was also true at Newgrange Site Z.[43] At Newgrange Site 1, turves retained the cairn stones at certain stages, and have been plausibly interpreted by the excavator to represent interruptions in the construction of the mound.[44]

Stone settings within the make-up of the tomb are present in a large number of the excavated tombs, particularly in the Knowth cemetery. Townleyhall II demonstrates the most impressive example of this structural feature (fig. 3.4). Townleyhall II was enclosed within elaborate rings of stone settings, the ends of which fitted neatly to the walls of the tomb on each side. This 'cellular planning' may have been laid out to form guide lines for the builders, to prevent the cairns

36. O'Kelly, Lynch and O'Kelly, 'Three passage graves', p. 276.

37. M. O'Kelly, *Newgrange*, pp 22, 113.

38. G. Eogan, *Knowth and the passage-tombs of Ireland* (London, 1986), p. 44.

39. Eogan, *Excavations at Knowth I*, p. 68.

40. *Ibid.*, p. 102.

41. G. Eogan 'A neolithic habitation-site and megalithic tomb in Townleyhall townland, county Louth' in *Journal of the Royal Society of Antiquaries of Ireland*, xciii (1963), pp 37-81, see pp 68-9.

42. O'Kelly and O'Kelly 'Tumulus of Dowth', p. 149.

43. O'Kelly, Lynch and O'Kelly, 'Three passage graves', pp 289-93.

44. M. O'Kelly, *Newgrange*, p. 92.

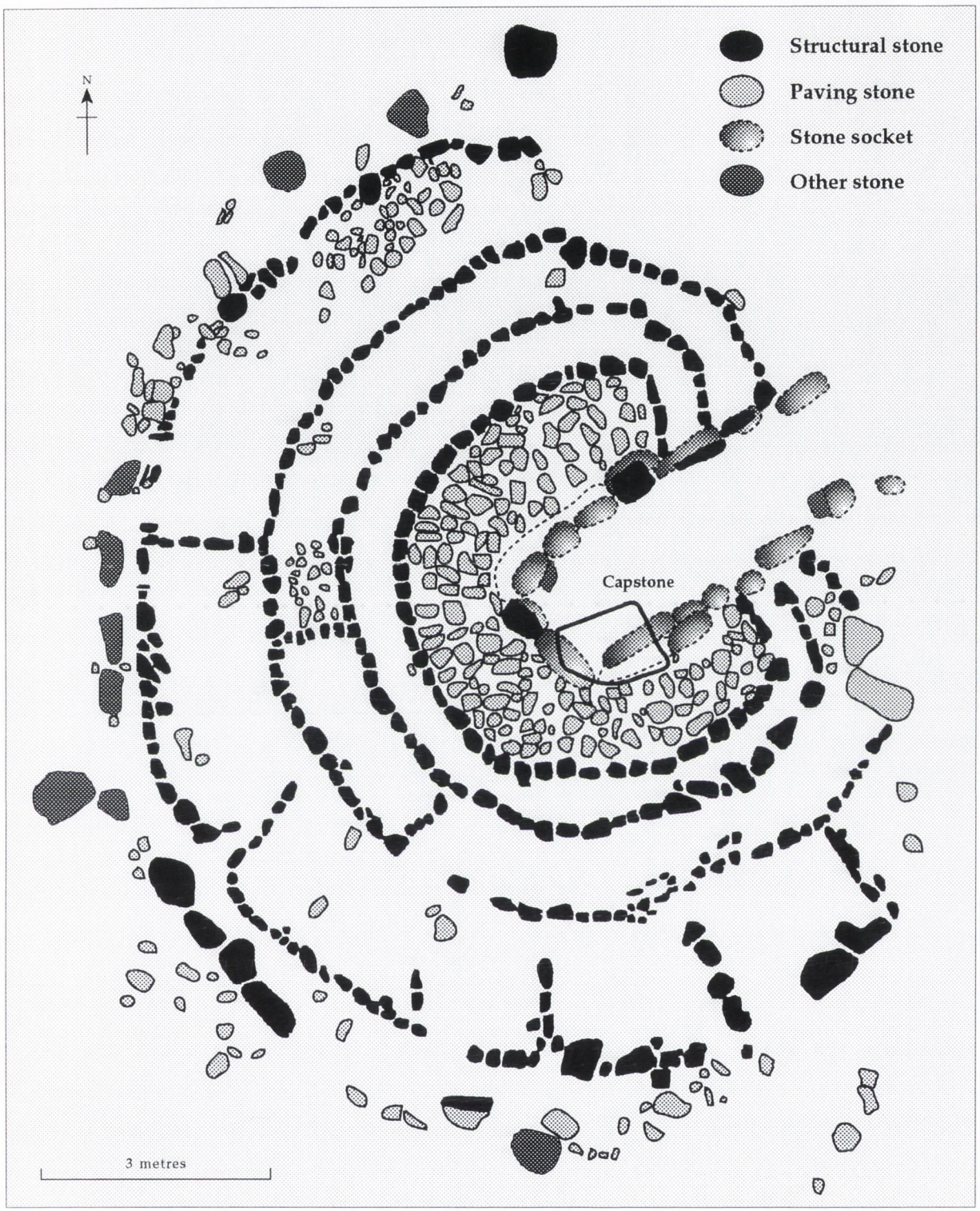


Fig. 3.4 Plan of Townleyhall passage tomb showing the cellular layout of the tomb's cairn (after Eogan, 1963).

from spreading or as a means of dividing up the site to share the work between different groups of workers.[45] Lines of boulders were used to retain sections of the main mound at Knowth Site 1.[46] At Knowth Site 4, there were stone settings in the mound but no evidence suggested that they formed an edging to the layered mound of boulder clay and shale.[47] At Knowth Sites 9 and 16, the tombs are partially surrounded by a series of stone settings in the form of arcs.[48]

Two plans are followed in the construction of the inner burial area: the *undifferentiated* form with a passage widening inwards from entrance to interior and *cruciform* with a parallel-sided passage and cruciform shaped chamber, the right hand recess usually being the largest. The undifferentiated plan is more common and the earliest at Knowth.[49] Knowth has the greatest concentration of undifferentiated tombs in Ireland.[50] The undifferentiated sites at Knowth are of a type which have an earlier manifestation in Atlantic Europe. Therefore the ultimate origins for the Boyne tombs types lie in continental Europe. Outside the Boyne Valley, the cruciform plan is more common.[51] The juxtaposition of both plan types under one mound at both Dowth and Knowth indicates that the two forms were in use simultaneously. Both types vary considerably in size; the undifferentiated tombs vary in length from 6.5m at Newgrange Site K to 34.2m for the western tomb at Knowth Site 1.[52] The passages of cruciform sites vary from 4m at Knowth Site 17 to 40.4m at the eastern tomb of Knowth's main mound.[53] There is no apparent difference in the pattern of decoration used on the cruciform and undifferentiated tombs.[54] Basin stones appear in both types, i.e Newgrange site Z and the western tomb at Knowth Site 1.[55] Within cemetries tombs of a particular plan tend to repeat an orientation or to share a similiar focus. This is a feature of tombs outside the Boyne valley as well. In Newgrange, the main site and smaller tombs face south. At Knowth, where both types occur in a cemetery arrangement, the undifferentiated sites focus on the hilltop

45. Eogan, 'Townleyhall', pp 75-6.

46. Eogan, *Knowth*, p. 45.

47. Eogan, *Excavations at Knowth I*, p. 36.

48. *Ibid.*, pp 57, 124-5.

49. *Ibid.*, p. 198.

50. *Ibid.*, p. 199.

51. *Ibid.*, p. 200.

52. O'Kelly, Lynch and O'Kelly, 'Three passage graves', pp 276-7; Eogan, *Knowth*, p. 43.

53. G. Eogan, *Knowth and the passage-tombs of Ireland* (London, 1986), p. 35; G. Eogan, *Excavations at Knowth I* (Dublin, 1984), p. 134.

54. G. Eogan, *Excavations at Knowth I* (Dublin, 1984), p. 194.

55. M. O'Kelly, F. Lynch and C. O'Kelly, 'Three passage graves at Newgrange, county Meath' in *R.I.A.Proc.*, C, lxxviii (1978), pp 249-352, see p. 291; G. Eogan, *Knowth and the passage-tombs of Ireland* (London, 1986), p. 43.

whereas the cruciform tombs have a different focus on an area south-east of the main tomb.[56] The smaller Knowth tombs face between north-east and southwest. There may have been some key point on the hilltop which served as a focus for their entrances.[57]

Newgrange is the oldest astronomically aligned structure in the world, predating the first phase of Stonehenge by 1,000 years and the Egyptian pyramids by *c.*400 years.[58] The winter solstice illumination at Newgrange was first recorded by O'Kelly in 1969.[59] The alignment of the roof box to the solstice was deliberate and shows that the builders were familiar with basis astronomical cycles. This roofbox – as an integral feature of the tomb's design – is unparalleled in Europe. However, while the Newgrange roofbox may be unique in its detail, a comparable effect is achieved in the chamber at Maes Howe in Orkney by light passing through the main entrance, an arrangement which has recently been paralleled at Crantit chambered tomb, also in Orkney. The discovery at Newgrange established the fact that an understanding of the calendar and the movement of the sun must have preceded the construction of the passage tomb. The two Dowth tombs face west. During the winter solstice, the setting sun lights the northern chamber. Astronomic observation may have been an aspect of ceremonial activity at Knowth; one of the stone carvings is possibly a 'map' of lunar features.[60]

A major aesthetic component of this cultural group within the Boyne valley is the concentration of funerary art on the structural stones of their tombs and grave goods including pottery, and pendants, the most dramatic example being the ceremonial macehead from the eastern tomb at Knowth.[61] This art and the degree of ritual in their burial behaviour distinguishes these passage tomb builders and makes them different from the other tomb building communities in Ireland. This megalithic art reflects an ornamental tradition present in a restricted coastal area along the western edge of Europe during the later Neolithic and Early Bronze age but whose origins possibly lay in south-east Europe.[62] There are key concentrations of decorated tombs in western Iberia and on the Golf of Morbihan (nr. Carnac in Brittany) but the Boyne is pre-eminent. The over 600 decorated stones in the Boyne represent two-thirds of the megalithic art of Europe; more than four-fifths of the decorated passage tomb stones in Ireland.[63]

---

56. *Ibid.*, p. 96.
57. Eogan, *Knowth*, p. 96.
58. F. Prendergast 'Shadow casting phenomena at Newgrange' in *Survey Ireland*, ix (1991), pp 9-18, see p. 9.
59. M. O'Kelly, *Newgrange*, pp 123-6.
60. K. O'Sullivan, 'Canadian cartographer uncovers the hidden secret of Knowth moon carvings' in Irish Times, 28 April 1999, p. 5; reports the alleged discovery by Dr Philip Stooke of the University of Western Ontario.
61. *Ibid.*, p. 179.
62. M. O'Sullivan, *Megalithic art in Ireland* (Dublin, 1993), p. 10.
63. Eogan, *Knowth*, p. 168..

Technically, the art is characterised by carved and picked designs that are non-representational. The earlier style is based on a standard geometric vocabulary of circles, spirals, triangles, zig-zags and serpentine forms. Confined to the outer faces of the kerbstones and the inner faces of the orthostats, it was designed to be seen. The structural stones acted as surfaces on which the geometric elements were applied. It occurs externally and internally with decoration applied to the naturally smooth, cleaved surfaces. The art was applied through incision or picking. Incision is often used in guide lines for the layout but picking or pocking is the main technique used. At Knowth this was produced using a chisel stone and punch.[64] Each tomb in the valley had a repertoire unique to itself; lozenges and zig-zags are most common at Newgrange, while angular art is the art *par excellence* at Knowth. Spirals are positioned on the most prominent stones at both tombs. The spiral, which has almost become a trademark motif for Irish heritage, is only common in Ireland. In some cases, the art occurs on surfaces that were later hidden. Area picking or dressing, added when the stones were in place, is only found in the Boyne valley. By applying art to the stones, the passage tomb builders may have been making visually permanent a part of their ideology, like the bibical scenes on the high crosses of the later Early Christian period.

The larger tombs took so long to build that an indigenous style of art had emerged between the time they were begun and completed. Some of the more dramatic ornament of the later plastic style in Newgrange and Knowth was added after the tomb was built. This stylistic revolution took place in the development of megalithic art when a distinctive school emerged on a grander scale with a 'boldness of expression and simplicity of design that concentrated on the visual impact'.[65] The artists took a sculptural approach and appeared more inspired by the shape of the structural stones. This 'school' reached a pinnacle at Knowth. The 'plastic style' overlies the earlier style/symbolism and shows a revolutionary disregard for it. The art became visually dramatic and functional as artist and architect became one. Stones bearing specific motifs were consciously positioned at the entrance of the large mounds, for example, which are marked by a long stone with a central vertical line, a functional motif at Knowth and Newgrange.[66] The largest and most highly decorated stones occur in the kerb closest to the entrance.[67] Angular spiral styles are positioned at different heights to draw one's

---

64. *Ibid.*, p. 149.

65. O'Sullivan, *Megalithic art*, p. 17.

66. Eogan, *Knowth*, pp 183-4.

67. *Ibid.*, p. 151.

attention inward, usually appearing on decorated roof stones. This is seen at Newgrange where the capstone of the roof box was decorated in an angular style.

Of twenty-five passage tombs that were excavated at Knowth, Newgrange and Townleyhall, all but three (which had been badly damaged) produced evidence for burial. The numbers of buried individuals varied from one to as many as sixteen at Knowth Site 16.[68] One hundred individuals were recovered in the large eastern tomb at Knowth, representing both sexes and various age groups; children and young adults were frequently present.[69] Cremation before deposition predominated although unburnt human remains were found at Newgrange Site 1 and accompanied cremated remains in the stone basin at Newgrange Site Z.[70] The human remains appear to have been burnt in a pyre elsewhere and then deposited in the tombs. The pyre material was included with the human remains at Newgrange Site L.[71] Animal bones were deposited in a large number of the sites.

Various methods of deposition of human remains were employed but they were usually confined to the chamber area (which they made every effort to seal) and in the recesses of the cruciform tombs. In the eastern tomb at Knowth Site 1, they were placed in little stone compartments in the left recess.[72] At Knowth Site 16, they were placed on or under a flagstone before the chamber was roofed.[73] The most elaborate containers were the stone basins at Newgrange Site Z and the eastern tomb of Knowth Site 1.

The human remains were usually accompanied by grave goods which varied in quantity and quality: stems of bracken with flint chips and decorated pottery at Knowth Site 9;[74] pestle pendants, mushroom headed pins, skewer type pins and maceheads at the eastern tomb of Knowth Site 1.[75] Grave goods at the other sites included bone pendants, chalk marbles, a range of pins made from bone and antler including mushroom-headed and skewer type pins, and stone beads. Carrowkeel pottery was the funerary vessel used.

The construction of these monuments involved extensive exploitation of the natural resources of the immediate countryside to such an extant that their make-up embodies the natural resources of their environs. For the structural

68. Eogan, *Excavations at Knowth I*, pp 114-5.

69. G. Eogan, 'The passage tombs of Brú na Bóinne' in *Brú na Boinne*; supplement to *Arch. Ir.*, xi (1997) pp 9-11, see p. 11; Eogan, *Knowth*, p. 135.

70. M. O'Kelly, *Newgrange*, pp 197-214; O'Kelly, Lynch and O'Kelly, 'Three passage graves', p. 291.

71. *Ibid.*, p. 261.

72. Eogan, *Knowth*, pp 39-40.

73. Eogan, *Excavations at Knowth I*, p. 115.

74. *Ibid.*, pp 57-8.

75. Eogan, *Knowth*, pp 40-3.

stones, local sandstones and limestones were used.[76] Some glacial erratics from the drift cover were used in the kerbstones of the smaller tombs. The kerbstones of the passage tombs at Knowth were undressed. Their origin appears local; some were glacial erratics. Better quality stone was used for the orthostats of the chamber. At Newgrange, the majority of the stones, including most of the kerbstones, were Lower Palaezoic greywacke, a green coarse slate that outcrops to the north of Newgrange. This type of rock weathers well and provides a good surface for decorating; it is the most favoured stone type of the tomb-builders.[77]

Given the quantity of stone used (*c.*200,000 tons) there must have been organised extraction of this material. Recent research suggests that the greywacke was quarried. Similiar stone has been identified in the Lower Palaeozoic Silurian zone which runs between counties Longford and Down and extends to within five kilometres of the area. The precise location of these prehistoric quarries has yet to be discovered. The tomb builders probably used natural outcrops where the stratification of the bedrock would have facilitated simple quarrying. The maximum depth of these deposits does not exceed 3m, so exploitation of many sites would have been necessary. Primitive quarries, if back-filled, would not be noticeable today.[78]

In France much research has taken place on the prehistoric quarries used by megalithic tomb builders. At Bougon in Deux-Sèvres quarries were discovered – using resistivity survey techniques – close to tumuli. The rock was extracted from conical pits, *c.*3m deep. They were almost completely filled in after use. Quarrying tools, including several picks of deer antler, were used to scrape away the split layers of rocky bands to expose blocks of solid rock. These were then loosened with axe hammers. Stones extracted in this way (without the use of fire) are fairly regular and parallel-sided. They can be used to form kerbs both inside and outside the mound. Excavation of the Champ-Chalon monument at Benon in Charente-Maritime has revealed the quarry pit that supplied the small slabs for a tumulus. These had been transported using ropes, tree trunks and human muscle.[79]

The Boyne tombs were covered by mounds composed of the local boulder clay interspersed with sods removed from nearby fields. The stones used are water rolled (taken from the riverbed and local drift) or local shale. Some of the stones used, especially at Dowth, were quarried and could be a by-product from quarrying for the kerbstones. The material for the cairn of Newgrange possibly came from the figure-of-eight-shaped pond on the lowest terrace of the river.[80]

---

76. *Ibid.*, p. 112.

77. *Ibid.*

78. *Ibid.*, pp 113-4.

79. J.-P. Mohen, *The world of megaliths* (New York, 1990), pp 158-68.

80. M. O'Kelly, *Newgrange*, p. 117.

There were five types of non-local 'collectable cobbles' used to embellish the tombs at Newgrange and Knowth.[81] Quartz occurs in large quantities near the main entrance to Newgrange and in smaller quantities at Newgrange Site Z. They are flecked with white mica which is a prominent mineral in the granite of the Wicklow mountains. During the Ice age there was no movement of ice from south to north, so quartz was not transported naturally to the Boyne valley. It would have been brought there manually, probably carried by boat. Dark, oval, naturally rounded cobbles of grandiorite were also found around the entrance to Newgrange Site 1, Newgrange Site Z and Knowth Site 1. Well rounded cobbles of granite at Newgrange Site 1 and Newgrange Site Z are from the Mourne mountains. The gabbro cobbles used are from Carlingford mountain, the most likely source being a stretch of shore of Dundalk Bay, between Giles Quay and Rathcor.[82] The presence of these 'imports' highlights the extent of communications with regions outside the valley (fig. 3.5).

Neolithic funerary ritual was expressed in tomb architecture, landscape positioning of the monuments, orientation of the entrances and positioning of the art on the structural stones. The largest and most elaborate stones are found nearest the entrance. At the western tomb at Knowth, there were settings, standing stones and a spread of exotic stones around the entrance. Non-local stones were found at the entrance of a number of sites. Ritual practices are also apparent in the placement of the burials and accompanying grave goods.

Economy As these monuments were designed to be seen and to dominate the landscape, their conspicuous position on the ridge indicates considerable clearance of the native forest in their environs, a fact confirmed by archaeological excavation. The environmental evidence provided by the excavations at Knowth, Newgrange and Townleyhall offers a profound insight into the economic foundation of these early communities. This evidence is rarely highlighted or given the emphasis it deserves in excavation reports where it is usually incorporated into appendices. Cooney is one of the very few Irish prehistoric archaeologists to value this information and use it to reconstruct the Neolithic landscape of the Boyne valley.[83] The environmental evidence from the excavations at Knowth, Newgrange and Townleyhall shows that the passage tombs were built on open farmland cleared during the five centuries preceding their construction. The mounds incorporate part of that early farmed landscape

81. F. Mitchell, 'Notes on some non-local cobbles at the entrance to the passage-graves at Newgrange and Knowth, county Meath' in *Journal of the Royal Society of Antiquaries of Ireland*, cxxii (1992), pp 128-45.

82. *Ibid.*

83. G. Cooney, 'Irish Neolithic landscapes and land use systems: the implications of field systems' in *Rural History*, ii (1991), pp 123-9.

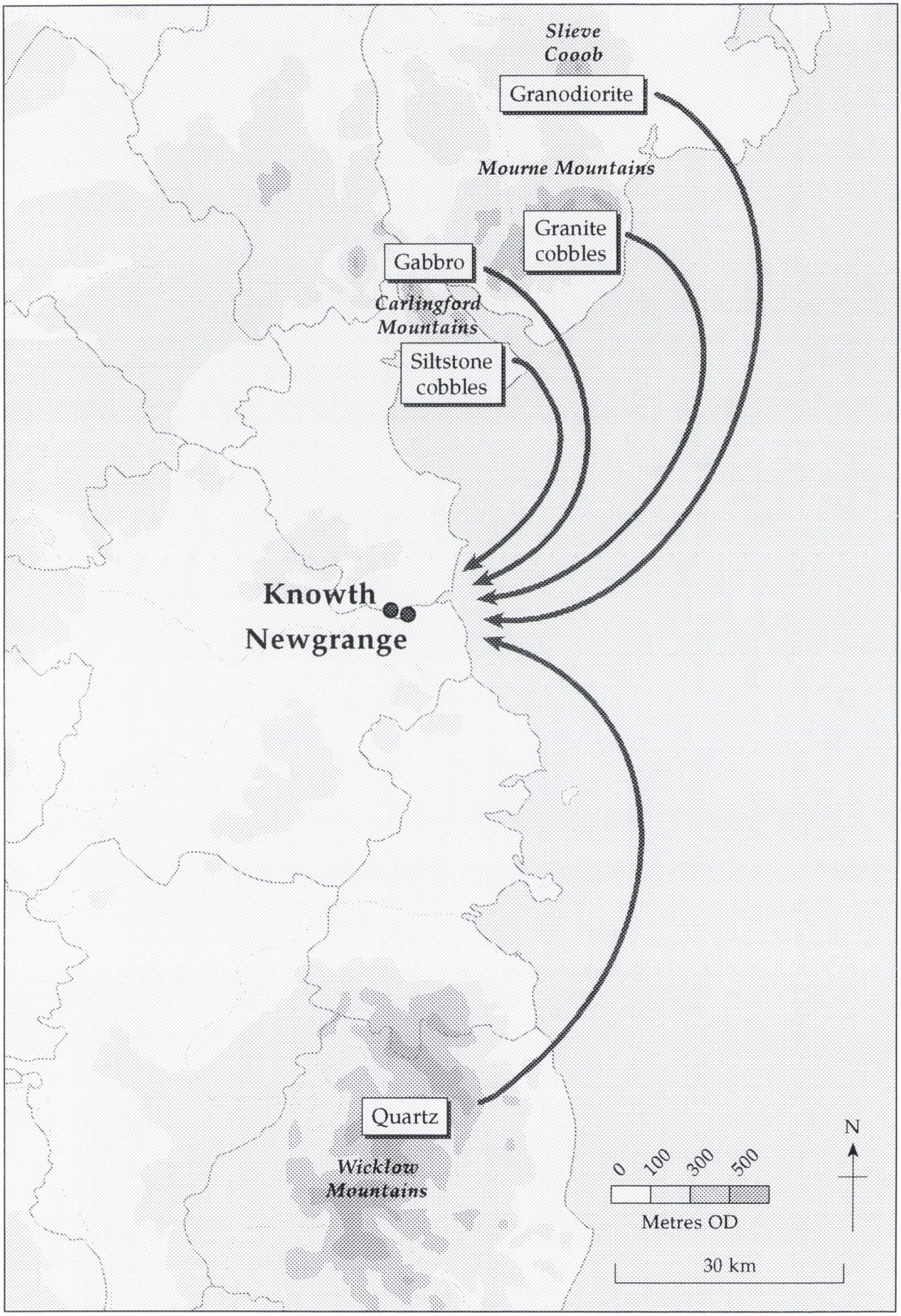


Fig. 3.5 Sources of stone used to embellish the tombs at Knowth and Newgrange (after Mitchell, 1992).

in their make-up, in the form of turves, cereal grains and macroscopic plant remains together with water-rolled stones from the river bed and stone from local quarries. Pollen, seed and macro-fossil analysis from Knowth and Newgrange and the evidence for a large number and variety of herbs, shows that this was an open landscape, strongly influenced by herding activity.[84] The presence of *cerealis* pollen grains in the make-up of the Newgrange mound demonstrate that the tomb builders also worked their crop fields in the vicinity, probably on the higher flanks of the Boyne. The turves used in the mound came from damp meadows rich in buttercups and blackberry and crab apple, probably from the lower terraces of the river.[85] This mixed pastoral and tillage economy was practised from the earliest Neolithic levels; charred wheat grains came from the timber palisade that enclosed the earliest houses and from hearth material in the houses at Knowth. Oats have been tentatively recognised, again associated with the circular houses.[86] Domesticated cattle, sheep and pig were also introduced. The animal bone remains from the Neolithic levels in Knowth indicate a predominance of cattle over pig with sheep/goat also present.[87]

The environment around Townleyhall passage tomb also indicates considerable forest clearance. The remains of fires show that the wood used was not coming from a high forest but from scrub that may have invaded former cultivation patches.[88] The trees included a low percentage of oak and elder and much higher percentage of undershrubs, notably hazel, willow, hawthorn and elderberry. The habitation site under the passage tomb produced carbonised cereal grains of wheat and barley, and hazel nut shells.[89] This accumulated environmental evidence further suggests that this was a structured landscape with fields enclosing tillage and pasture.[90] The making of fields was an integral part of this activity, probably using bramble and crab apple as hedging material. However, this area's successful farming tradition has meant that the physical evidence for the early organisation of agriculture has been substantially removed. There is clear evidence of a farming system capable of sustaining a major monument building project.

---

84. W. Groenman-van Watteringe and J. Pals, 'Pollen and seed analysis' in M. O'Kelly, *Newgrange*, pp 219-23; W. Groenman-van Watteringe and J. Pals 'Pollen and seed analysis' in Eogan, *Excavations at Knowth I*, pp 325-8.

85. M. Monk, 'Macroscopic plant remains' in M. O'Kelly, *Newgrange*, pp 219-23.

86. Collins, 'Plant remains', pp 295-7.

87. F. Mc Cormick, 'Animal bone analysis from Neolithic and Beaker complexes' in Eogan and Roche, *Excavations at Knowth II*, pp 301-6. Sheep and goat cannot be distinguished in the faunal record.

88. Eogan, 'Townleyhall', pp 38-9.

89. *Ibid.*, p. 42.

90. Cooney, 'Irish Neolithic landscapes', pp 123-9.

Settlements In sharp contrast to the major investment in their funerary monuments and the richness of the accompanying grave goods, the houses of this community were insubstantial constructions which have no visible impact on today's landscape. Their houses have been described as 'adequate' and 'mundane', 'requiring no great skill'.[91] Unlike the tombs, the houses were not built to withstand the tides of time. Evidence for the homes of the passage tomb builders comes from under the tombs at Knowth. They appear as clusters of stake holes, all that remains of circular or oval houses. Traces of at least ten and as many as fourteen houses were found at Knowth.[92] The stake holes suggest that some of the houses were substantial structures, with straw or rush conical roofs supported on a ring of upright posts. Wood was the main building material. Evidence for hearths and pits were found within or close to these houses. The organisation of the domestic space – they were not divided internally – suggests sufficient room for five to ten individuals. The size range does show a wide variation which may be an indication of family size, function or status.[93] A basic range of features, including a fireplace and storage or refuse pits, were present. The houses were not enclosed, suggesting no preconceived threat from outside. The superimposition of six houses in one area at Knowth indicates a longevity of settlement.[94] The finds from these houses demonstrate no specialised use but there were very few scrapers relative to cutting implements which were more common.[95] Decorated Carrowkeel pottery and broad rimmed pottery were found together in the houses just as they were together in the tombs.

Similiar timber structures were located under a mound at Townleyhall, enclosed by a bank and ditch.[96] At Townleyhall II, 142 stake holes and nine hearths were uncovered with hazelnut shells and cereal grains of wheat and barley. There was considerable industrial activity on the site, with a wide range of finished implements including hollow scrapers, end scrapers and flint artifacts known as 'petit tranchet deritives' (triangular flint tools hafted to a shaft with the cutting edge disposed obliquely to form a single barbed harpoon). At Townleyhall I, domestic features, including stone-lined storage bins and small pits, were exposed, associated with hollow scrapers, convex scrapers and retouched blades. Traces of domestic settlement appeared during excavations west of the entrance at Newgrange. Here, a house foundation associated with a stone bowl and a hollow

---

91. Eogan and Roche, *Excavations at Knowth II*, p. 88.

92. *Ibid.*, pp 51-71.

93. G. Cooney and E. Grogan, *Irish prehistory: a social perspective* (Dublin, 1994), p. 48.

94. Eogan and Roche, *Excavations at Knowth II*, p. 52.

95. F. Dillon, 'Lithic assemblage' in Eogan and Roche, *Excavations at Knowth II*, p. 81.

96. G. Liversage 'A neolithic site at Townleyhall, county Louth' in *Journal of the Royal Society of Antiquaries of Ireland*, xc (1960), pp 49-60; Eogan 'Townleyhall', pp 40-64.

scraper was regarded as being contemporary or nearly so with the building of the tomb.[97]

3D Late Neolithic/Early Bronze Age land use

Within a few centuries of the building of the passage tombs, there was a renewed phase of monument building in the Bend of the Boyne. The peripheries of the larger passage tombs (in particular their entrances) again became a focus for intense outdoor ritual activity. Large ceremonial enclosures were constructed from stone, timber and earth for great public assemblies (fig. 3.6, table 3.2). Ritual monuments constructed at Newgrange include a timber circle (or 'woodhenge') to its southeast, a smaller, possibly roofed timber circle to the west, and a free-standing stone circle which encircled the actual passage tomb.[98] Remains of great fires and deep pits, dug to receive votive offerings of burnt animals (pig in particular), perhaps during significant solar events, were revealed around the entrance of Newgrange.[99] A similiar Late Neolithic/Early Bronze Age revival is evidenced at Knowth. Here a timber circle was placed near the entrance of the eastern tomb.[100]

Table 3.2

Late Neolithic – Bronze Age sites in the Boyne Valley Archaeological Park.

		SMR No.
Dowth	Earthen Enclosure (henge)	20:10
Knowth	Timber circle, site of	19:30
Monknewtown	Earthen Enclosure (henge), partial remains	19:1601
Newgrange	Cursus, partial remains	19:4401
Newgrange A	Earthen Enclosure (henge) ploughed	19:45
Newgrange P	Earthen Enclosure (henge) ploughed	26:06
Newgrange	Standing stone	26:55
Newgrange	Stone circle	19:45
Newgrange	Timber circle, partial remains	19:4402
Oldbridge	Cist burials	20:02
Sheephouse	Fulachta fiadh, sites	20:2901

A ceremonial avenue or cursus was also constructed across the ridge top immediately east of Newgrange. This marked the route of a ritual procession through the landscape. Located *c.*100m east of the main passage tomb at Newgrange, it consists of two parallel banks *c.*20m apart, the southern end terminating on the summit of the ridge in a U shape. It extends for *c.*100m and its

97. M. O'Kelly, *Newgrange*, pp 76-7.

98. D. Sweetman, 'A Late Neolithic/Early Bronze Age pit circle at Newgrange, county Meath' in *R.I.A.Proc.*, C, lxxxv (1985), pp 195-221; D. Sweetman, 'Excavations of a Late Neolithic/Early Bronze Age site at Newgrange, county Meath' in *R.I.A.Proc.*, C, lxxxvii (1987), pp 283-98.

99. C. Mount, 'Aspects of ritual deposition in the Late Neolithic and Beaker periods at Newgrange, county Meath' in *Proceedings of the Prehistoric Society* (lx) (1994), pp 433-43.

100. G. Eogan and H. Roche, 'A Grooved Ware wooden structure at Knowth, Boyne Valley, Ireland' in *Antiquity*, lxviii (1994), pp 322-30.

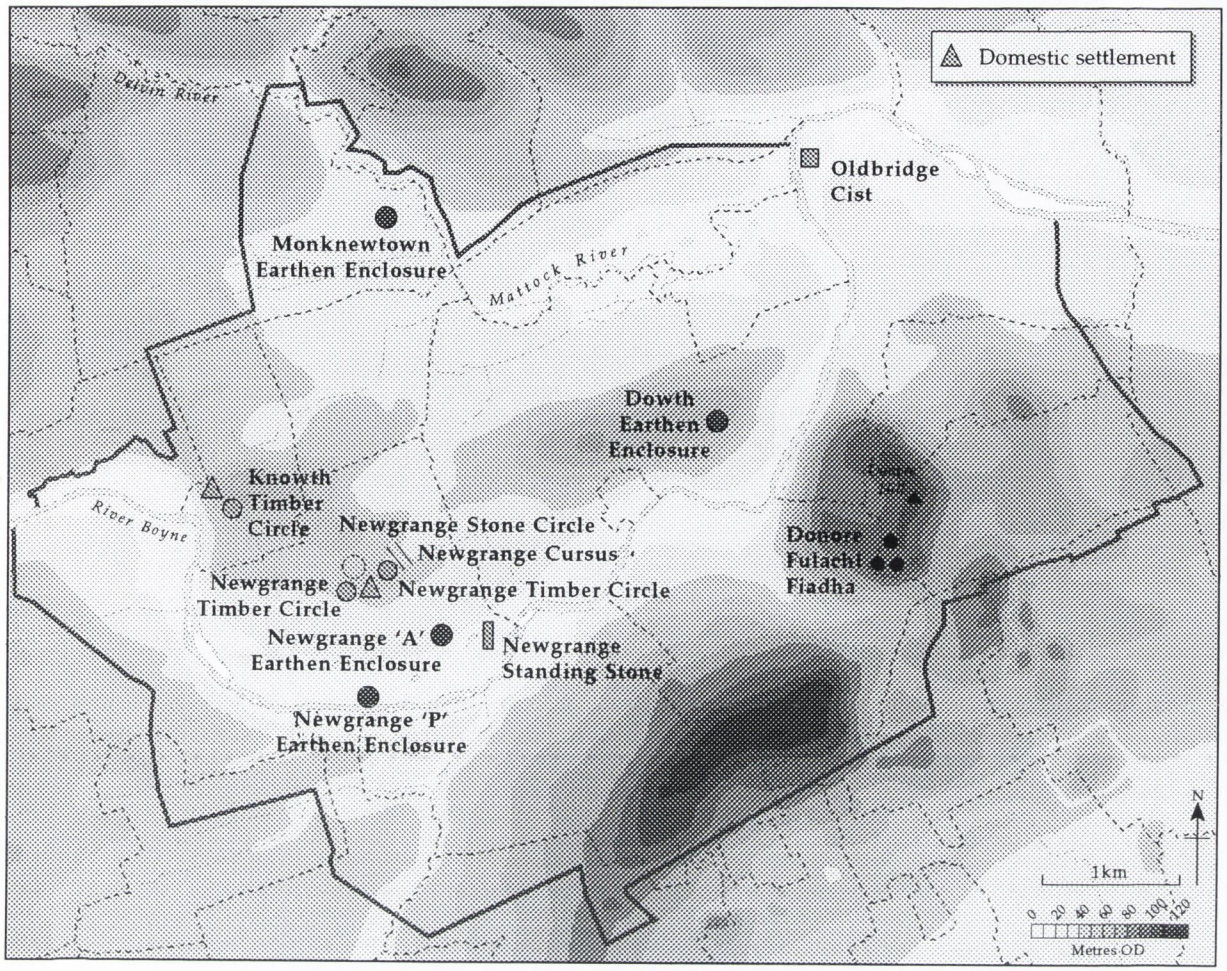


Fig. 3.6 Late Neolithic – Bronze Age sites in the Boyne Valley Archaeological Park.

original position further north is indicated by a narrow enclosed field which runs on the same axis to the north.[101]

During this stage in the area's history, earthen embanked enclosures (commonly termed henges) were built on the terraces below Newgrange and elsewhere in the valley. The four earthen embanked enclosures within the archaeological park form part of a well defined group of thirteen embanked ceremonial enclosures within the lowland river valleys of county Meath.[102] The term *henge*, coined as an archaeological term after the typesite of Stonehenge in Britain, is used to cover a wide variety of ceremonial sites of Late Neolithic/Early Bronze age date, including embanked enclosures, pit circles and pit and post circles.[103]

The earthen henges in the Bend of the Boyne area are characteristically circular or oval in plan and are defined by a high, flat-topped bank. Banks range from 10m to 14m in width and rise to heights of 1.2m to 2.5m. Dowth is unique in the group in having a well preserved bank width of *c.*20m, rising to an average height of 4m. They often exceed one hundred metres in diameter. Many have a domed or hollowed interior, artificially created by scraping the material away from the whole interior of the smaller enclosures and the internal perimeter of the larger sites to use as material for the bank. This method of construction was confirmed during the excavation at Monknewtown.[104] The builders avoided digging construction ditches, a standard feature of the British sites, thereby creating an open, inward looking monument. Usually a single entrance opens downslope. There is a distinct preference for an east, west or south-west entrance. An aerial photograph of Newgrange Site O shows what could be opposing entrances. The eastern opening at this site is visible on the ground, but the opening in the west is narrower and can only be traced from the aerial photograph.[105] Internal features exist in two of the sites in the Bend of the Boyne; Newgrange A and Monknewtown. A flat-topped circular mound, probably a

---

101. T. Condit, 'The Newgrange cursus and the theatre of ritual ' in *Brú na Boinne,* supplement to *Arch. Ir.*, xi (1997), pp 26-7.

102. G. Stout, 'Embanked enclosures of the Boyne region' in *R.I.A.Proc.*, C, xci (1991), pp 245-85.

103. The historiography of this monument type can be traced in the following papers: S. Ó Riórdáin, *Antiquities of the Irish countryside* (London, 1953), pp 21, 93; G. Wainwright, 'A review of henges in the light of recent research' in *Proceedings of the Prehistoric Society,* xxxv (1969), pp 112-33, see pp 114-6; H. Burl, 'Henges: internal features and regional groups' in *Archaeological Journal,* cxxvi (1969), pp 1-26, see pp 10, 17-8; R. Hicks, Some henges and hengiform earthworks in Ireland: form, distribution, astronomical correlations and associated mythology (unpublished PhD Thesis, University of Pennsylvania, 1975). For an assessment of the Irish henges in their 'Irish Sea' context, see T. Clare, 'Towards a re-appraisal of henge monuments' in *Proceedings of the Prehistoric Society,* lii (1986), pp 281-316, see pp 287, 291; T. Clare, 'Towards a re-appraisal of henge monuments: origins, evolution and hierarchies' in *Proceedings of the Prehistoric Society,* liii (1987), pp 457-77, see pp 468-9. See also A. Harding and G. Lee, *Henge monuments and related sites of Great Britain* (Oxford, 1987); J. Wainwright, *The henge monuments* (London, 1989), p. 14.

104. D. Sweetman, 'An earthen enclosure at Monknewtown, Slane, county Meath' in *R.I.A.Proc.*, C, lxxvi (1976), pp 25-72, see pp 26-7, fig. 1.

105. CUCAP AYM 70.

passage tomb, is eccentrically located within the enclosure at Newgrange Site A. A linear feature, 5m wide, running in line with the bank core, was identified by a resistivity survey. Prior to excavation, the interior of the Monknewtown henge was featureless. However a rescue excavation revealed a pit cemetery, habitation site and a ring ditch within the interior. Eleven pits were found in the interior near the bank edge, two containing cist-like structures and a cremation in a Carrowkeel bowl. Six of the pits contained cremations, in one instance, contained in a bucket-shaped pot.[106]

There is a close physical, chronological and artifactual relationship between these earthen henges and the passage tombs in the Boyne valley. A passage tomb lies just east of the henge at Monknewtown and the Carrowkeel bowl found there is a type of ware used by the passage tomb builders. A passage tomb has been incorporated into the embanked enclosure on a terrace south of Newgrange. This juxtaposition is also evident in its timber versions of henge monuments. The pit circle on the ridge east of Newgrange incorporates the passsage tomb Newgrange Site Z. There is an obvious desire to locate ritual activities in an area of pre-established ritual significance.[107]. This continuity of place and pottery styles and a desire to incorporate the earlier tombs into later ritual suggests a continuity of population linked to the passage tomb past.

The timber circles around the periphery of Newgrange and Knowth are part of this Late Neolithic/Early Bronze Age ritual activity. Downslope from the tomb entrance at Newgrange are the preserved remains of a monument revealed by excavations in 1982 when the OPW were attempting to dig foundations for a new visitor facility. It comprises a large circle of mainly clay-lined pits *c.*100m in external diameter, originally enclosed by free-standing timber posts. This structure was built around 2,000BC.[108] The pits contained quantities of burnt and unburnt animal bones from pig (the vast majority of bones), cattle, deer, sheep and/or goat, and two breeds of dog.[109] These were placed as votive offerings. The interior of the 'woodhenge' contained remains of stake holes from a temporary habitation which produced flint flakes and Beaker pottery. A standing stone was discovered immediately outside the circle of pits at the south-south-west. These features compare broadly with henge sites in England and have been compared with the tapering shafts found at Maumbury Rings, Dorchester and the Aubrey Holes at Stonehenge, Wiltshire.[110]

---

106. Sweetman, 'Earthen enclosure at Monknewtown', pp 25-72.

107. G. Stout 'Embanked enclosures', p. 252.

108. Sweetman, 'Pit circle at Newgrange', pp 195-221.

109. *Ibid.*, appendix I, pp 219-20.

110. *Ibid.*, p. 212.

A smaller pit and post circle, interpreted by archaeologists as a places of public assembly, was discovered west of Newgrange in 1984 when sod removal for a new roadway revealed the remains of prehistoric activity.[111] Excavations exposed the remains of a circle of pits and postholes *c.*20m in diameter. Here a number of pits also had deliberate deposits of burnt flint. Similarly, 12m east of the entrance to the eastern passage at Knowth, a substantial circular wooden structure was built. The nature of the finds suggested a temple or sacred place.[112] This structure was defined by a ring of thirty-five wooden posts, the only surviving evidence being the post shafts in which they stood. The entrance was defined by four large posts which were more substantial and provided a porch-like feature. Finds included grooved ware, flint tools and stone axes and these were deliberately deposited in the post pits at the time of construction. The Irish grooved ware pottery is related to a special kind of ware usually found during the excavation of ceremonial earthen enclosures (frequently enclosing stone circles and/or pits) in Great Britain.

A stone circle surrounds Newgrange passage tomb but the two are not concentric. The stones vary from 6m to 18m away from the perimeter of the cairn.[113] Only twelve standing stones survive, none of which are decorated. They are irregularly spaced except for the three opposite the entrance which are the largest, standing, on average, 2.5m high. They are inserted into foundation sockets lined with packing stones which have maintained their original position despite cairn collapse. Excavations of the pit circle east of Newgrange showed that the stone circle was built later than the circle of pits and were associated with the Beaker settlement, and not pre-passage tomb activity as had been previously argued.[114] This dating is substantiated by recent astronomical investigations which indicate a pivotal relationship between the entrance stone of the passage tomb at Newgrange and the positioning of the stones of the great circle.[115] The stones of this circle were carefully placed to mark sunrise positions at key periods in the solar calendar. This was done by shadows cast on the earlier entrance much like a sundial. This suggests a need for this agricultural society to divide the year and highlights once again the desire to incorporate the earlier monuments into later practices.

---

111. Sweetman, 'Pit circle at Newgrange', pp 283-298.

112. Eogan and Roche, *Excavations at Knowth II*, pp 101-222.

113. M. O'Kelly, *Newgrange*, pp 79-84.

114. Sweetman, 'Pit circle at Newgrange', pp 208-9.

115. F. Prendergast, 'New data on Newgrange' in *Technology Ireland*, xxii (1991), pp 22-25; Prendergast, 'Shadow casting phenomena at Newgrange', pp 9-18.

Technology This Late Neolithhic/Early Bronze Age phase in the Boyne Valley is still a stone using economy if a somewhat unimpressive one. It had a conservative stone-tool industry where earlier flint working techniques and tools, particularly scrapers used in the dressing of skins, combined with some new tool types, especially barbed and tanged arrowheads. These are found in the Late Neolithic/Early Bronze age assemblages from Knowth and Newgrange. One of the characteristics of the flint industry of Newgrange is the high proportion of scrapers to other implements.[116] Stone tools from the timber circle at Knowth include those made from flint, pebble and chalk. There was little evidence for the finished tools used as the majority of the finds are un-utilised blades and flakes.[117]

Evidence for the use of metal by these communities is quite meagre. The Beaker settlement at Newgrange produced a number of stone objects that may have been used by a metal worker and a thin-butted bronze axe head.[118] The builders of the embanked enclosures may have had an interest in the copper resources of the Boyne region as their distribution coincides with a concentration of copper resources in the eastern half of Meath.[119] Pottery was locally made, using local raw materials (logically enough) but foreign styles. At Newgrange an actual pottery workshop was identified by the presence of prepared or accidentally fired unshaped clay.[120] However, the presence of local clays cannot be used as evidence against an influx of a new population in the Late Neolithic/Early Bronze Age, as has sometimes been argued.[121]

Economy A much greater degree of continuity in agricultural practice between the Neolithic and Bronze Ages has been identified.[122] This is particularly true if the faunal collections from the Bronze Age at Knowth and Newgrange (where pig bones outnumbered cattle bones) are viewed as ritually selective rather than being representative of the farm stock in general.[123] Despite the presence of arrowheads of various types, hunting was of negligible importance. The keeping of sheep/goat (they are indistinguishable in the bone record) was also a

116. Lehane, 'The flint work' in M. O'Kelly, Cleary and Lehane, *Newgrange, county Meath*, pp 118-67.

117. Dillon, 'Lithic assemblage' in Eogan and Roche, *Excavations at Knowth II*, p. 162.

118. M. O'Kelly and C. Shell, 'Some objects and a bronze axe from Newgrange, county Meath in M. Ryan (ed.), *Origins of metallurgy in Atlantic Europe* (Dublin 1979), pp 127-44.

119. G. Stout 'Embanked enclosures', pp 252-3.

120. R. Cleary, 'The ceramic assemblage' in M. O'Kelly, Cleary and Lehane, *Newgrange, county Meath*, pp , 58-117, see p. 62.

121. *Ibid.*

122. Cooney, 'Irish Neolithic landscapes', pp 123-9.

123. Mc Cormick, 'Animal bone analysis' in Eogan and Roche, *Excavations at Knowth II*, pp 301-6.

peripheral activity.[124] A mixed farming economy is indicated by grains of wheat, barley and oat in the post pits of the timber circle at Knowth.[125] The Early Bronze Age 'Beaker' concentration at Knowth produced small quantities of wheat and barley grains, hazelnut shells, blackberry and elderberry seeds, vetch, dock, sloe, goosefoot, mint, bracken, hazel, alder, elm and oak, indicating little change in vegetation in the post-Passage tomb period.[126]

This renewed phase of monument building in the Boyne region heralded an impressive change in the ritual landscape of the area. It coincided with an apparent decline in the fabric of the passage tombs, resulting in cairn collapse at Newgrange.[127] It is associated with the adoption of new pottery styles (Beaker and grooved ware) and a simpler burial tradition. Similar trends emerged in Late Neolithic/Early Bronze age Britain from *c.*2,500BC. In Britain there was a similiar decline in monumental tombs; traditional pottery styles were replaced by new types; flint working techniques degenerated; single grave burial was adopted; large scale enclosures or henges for burial and ritual practice were constructed. These changes affected both north and south Britain and are seen as largely indigenous in origin. They have been interpreted as the emergence of a stratified society with a focus on the individual rather than community.[128] In Ireland the stimulus for Late Neolithic/Early Bronze age changes was probably exogenous and the arrival of new populations from Britian cannot be ruled out.

3E Middle Bronze Age Settlement

There are some indications that there were permanent communities south of the river Boyne in the Middle Bronze Age. Two cist burials (burials in stone-lined boxes) have been discovered at Oldbridge. The most tantalising indication of a human presence in the valley during the Middle Bronze Age is the recent discovery of fulachta fiadh; mounds of burnt stones with pits that are the remains of ancient cooking sites. These were located in a natural basin high above the south bank of the Boyne at Sheephouse. A small community may have lived here three and a half thousand years ago (*c.*1,400BC). There are some Late Bronze Age finds from Newgrange but by this time the burial mounds here and at Knowth had collapsed to cover over all traces of the earlier settlement. The entrance to Newgrange remained hidden for thousands of years.

---

124. F. McCormick, 'appendix I' in Sweetman, 'Pit circle at Newgrange', pp 219-20.

125. Collins, 'Plant remains', pp 295-7.

126. Groenman-van Waateringe, 'Pollen and seed analyses' in Eogan, *Excavations at Knowth I*, pp 325-9.

127. M. O'Kelly, Cleary and Lehane, *Newgrange, county Meath*, pp 1-2.

128. T. Darvill, *Prehistoric Britain* (London, 1987), pp 75-107.

3F Summary and Conservation Statement

Section 3B highlighted the scarcity of tangible evidence for pre-farming communities and their apparent invisiblity in the Bend of the Boyne landscape. However, there is a case for the existence of such settlements, based on the rich natural resources of the area available during the Mesolithic period, proximity to neighbouring hunter-gathering communities and the results of recent field walking in the Boyne valley. Post-depositional problems have affected evidence survival. The prehistoric lithic material contained in the area's ploughsoil may be our only guide to understanding the extent of earlier prehistoric settlement in this intensively farmed area. Therefore, any management plan for the area must assume that the archaeological evidence for the earliest settlers in the Boyne valley lies hidden in this ploughsoil and plan accordingly for its conservation and documentation. Advantage should be taken of the large extent of land under tillage; 480 hectares or 14.5% of the Boyne Valley Archaeological Park was tilled in 1990. Systematic field walking projects should be undertaken as part of the rescue procedures in advance of development and as ongoing research into human land use in this area.

Section 3Ci outlined the growing archaeological evidence for an Early Neolithic cultural horizon in the lower Boyne valley. This is evident in the form of sub-surface remains largely sealed by the later passage tombs. Habitations have been routinely discovered under and extending from the mounds of the later passage tombs. For safety's sake, we must assume that every passage tomb in this area is sealing pre-tomb archaeological deposits. Further, because of the fragile nature of the evidence, the ground in the immediate vicinity of the passsage tombs should not be disturbed by tillage or fencing and any designation should include a generous cordon around the site. In the event that the vicinity of a tomb is ploughed, systematic field walking should be undertaken to identify any traces of pre-tomb activity.

Section 3Cii dealt with the pre-eminence of the passage tomb culture in the Bend of the Boyne and the extensive research undertaken on the subject. At present thirty-two definite and eight possible passage tomb sites are known (table 3.1, fig. 3.3). Because of the density of site discovery at Knowth, there is a need to follow up every lead, early description or indication of the former presence of a site. Typical of the references is William Wilde's description of a 'Giant's Grave' besides St. Bernard's well at Dowth.[129] The *hidden* nature of much of the prehistoric evidence in the Bend of the Boyne is most strikingly highlighted at Knowth. Prior to its excavation (initiated in 1962), there was only evidence for the large grass-covered mound. No clear evidence existed for other sites, except

129. W. Wilde, *Beauties of the Boyne and Blackwater* (Dublin, 1847), p. 210.

the one excavated by MacAlister on the north side of the mound and the presence of four large boulders on the north-west side.[130] Excavations have since revealed seventeen smaller satellite tombs encompassing Site 1, all within 20m of the large mound with the exception of one 145m away, possible evidence for two others to the south-east of site 1, one in a boundary fence to the north of it, and documentary evidence for a tomb which was probably removed in 1860-70 when the present farmhouse was built.[131] This brings to twenty the total number of tombs at Knowth alone!

The chequered history of site destruction in the Boyne Valley also indicates that the overall total of forty tombs is a minimum figure. The smaller *satellite* tombs in the Bend of the Boyne have been very badly damaged with 'a ruthless thoroughness'.[132] This history of destruction goes back to prehistoric times when earlier tombs at Knowth were altered for the building of the main tomb. For example, the mound of Knowth Site 13 was removed so that the kerb of the large passage tomb would not have to curve as far inwards to avoid it.[133] Sometime in antiquity, all the kerb and chamber stones were removed at Knowth Site 9.[134] Much later, during the ninth and tenth-centuries AD, large-scale tomb destruction took place at Knowth and Dowth when large structural stones were extracted from the chambers of some of the smaller sites to construct souterrains. These were re-used as entrance capstones to the souterrain complex at the eastern tomb at Knowth and to form an entrance to an Early Christian house.[135] The entrance to the western tomb at Knowth was re-modelled for the construction of a souterrain.[136] At Dowth, several thousand years after it was built, people living on or near the prehistoric mound constructed a souterrain inside the kerb and linked it with the northern passage grave.[137]

Tillage and land clearance over the millennia have also taken their toll on the survival of the passage tomb cemeteries. The smaller tombs to the west and that to east of Newgrange were badly damaged when ridge and furrow cultivation overran both tombs: clear evidence of this activity can still be seen throughout

---

130. Eogan, *Knowth*, p. 22.

131. M. Herity, 'From Lhuyd to Coffey: new information from unpublished descriptions of the Boyne valley tombs' in *Stud. Hib.*, vii (1967), pp 127-45, see p. 141.

132. Eogan, *Excavations at Knowth I* , p. 13.

133. *Ibid.*, p. 79.

134. *Ibid.*, pp 53-8.

135. *Ibid.*, p. 159, 161.

136. G. Eogan, 'Report on the excavations of some passage graves, unprotected inhumation burials and a settlement site at Knowth, county Meath' in *R.I.A.Proc.*, C, lxxiv (1974), pp 11-112, see pp 89-91.

137. M. O'Kelly and C. O'Kelly, 'The tumulus of Dowth, county Meath' in *R.I.A.Proc.*, C, lxxxiii (1983), pp 5-190, see pp 154-6.

the field in which the monuments are situated.[138] At Site Z, the small tomb east of Newgrange, the mound was levelled and all the structural stones were pulled up, broken into fragments and throw back into the sockets. The sites to the west of Newgrange were similarly destroyed by medieval ploughing. This damage took place in the late thirteenth century as evidenced by pottery found on the site associated with plough pebbles and ridge and furrow cultivation.[139]

A limekiln had been inserted into Newgrange Site L, before 1699 as it is mentioned by Lhywd, the Welsh antiquary and scholar who visited Newgrange during his tour of Ireland in 1699-1700. He reported a decorated orthostat in the lime kiln.[140] He also witnessed the entrance to Newgrange being robbed by the local landowner, Charles Campbell. The tumulus at Newgrange considerably impressed him; his Irish notes were destroyed by fire at a bookbinders in London but much detail is contained in several letters written by him at the time. Copies of these letters, including his detailed drawing of the chamber, are held at Trinity College, Dublin and others are published in Gunther's (1945) *Life and letters of Edward Lhywd.*[141] These letters preserve an account of the re-discovery of the entrance passage, the state of the monument at the time, the finds in the chamber, and the former presence of a standing stone on the top of the mound. Lhwyd's letter of 15 December 1699 reports:

> The gentleman of the village observing that under the green turf this mount was wholey composed of stones, and having occassion for some, employ'd his servants to carry off a considerable parcel of them; till they came at last to a very broad flat stone rudely carved, and placed edgewise at the bottom of the mount. This they discovered to be the door of a cave, which had a long entry into it.[142]

Townleyhall II was partially destroyed in the first half of the eighteenth century as evidenced by a copper halfpenny of George 1 and portion of a clay pipe found in pits dug into the tomb.[143] A stone circle at Dowth suffered a similar fate. By the time of Beranger's visit in 1755, much of the circle had fallen down into a quarry. Pownall (1769) noted that:

---

138. M. O'Kelly, 'Plough pebbles from the Boyne Valley' in *Folk and farm: essays on archaeology presented to Stuart Piggot* (London, 1976), pp 126-33.

139. O'Kelly, Lynch and O'Kelly, 'Three passage graves', p. 344.

140. *Ibid.*, pp 251, 253.

141. Trinity College Dublin, Ms. 883 f.10, ff285-286; Trinity College Dublin, Ms 888/2 f f 312-313; J. Campbell, 'The tour of Edward Lhwyd in Ireland in 1699 and 1700' in *Celtica*, v (1960-3), pp 218-28; R. Gunther, *Life and letters of Edward Lhwyd* (Oxford, 1945), pp 421-3, 429.

142. *Ibid.*, pp 421-3.

143. Eogan, 'Townleyhall', p. 39.

> The druid circle at Cloghlea at Dowth, now stands on the brink of a stone quarry and the labourers were at work close under it: so that in a year or two it may be undermined and thrown down.[144]

Nothing now remains of this intriguing monument. The eighteenth century witnessed a feverish phase of road construction and these tombs offered a ready supply of stone. Wilde (1847) recounted:

> The grand jury of the county on one occasion presented, in form [i.e. officially request], for the stones of Dowth. A considerable gap in the western face at Dowth had been caused by large quantities of stones having been removed at different times to erect buildings or to break into macadimising materials for the road which passes at its foot.[145]

The mounds at Ballincrad may also have been robbed to build near-by roads. At Monknewtown, a mound was described by Wilde as:

> Another Newgrange, upon a minor scale, which has been rudely torn asunder, and was left in a dilapidated condition in spring last, by some Goth, in order to convert a few of its stones into gate posts.[146]

While deplorable, this early destruction could be due to ignorance or disregard for the past. No such excuse can be made for destruction taking place in our own time. In the 1960s the tombs on the lower terraces below Newgrange passage tomb were badly damaged by tillage and a law suit followed.[147] These fields are *still* being tilled today and archaeological deposits are being continuously eroded away (see fig. 3.3).

The boldest effort at a monument's conservation in the Bend of the Boyne, the restoration works at Newgrange, must also be included in this history of damage. This work involved the construction of the imposing white quartz wall. The restoration was based on archaeological findings which indicated that, originally, a near vertical drystone facade, built of quartz and granite, covered the mound in the vicinity of the entrance to Newgrange.[148] This revetment 'wall' had been built on top of the kerbstones. When this wall collapsed in prehistory, there was nothing to hold back the cairn material which slipped around the base of the mound and its kerbstones. Prior to excavations, a restoration brief undertook to expose the outer kerbstones and create a naturally sloping face on Newgrange mound. This was later reviewed and the vertical wall, believed to be a more accurate reconstruction, was built.

---

144. Herity, 'From Lhuyd to Coffey', pp 142-5.

145. Wilde, *Boyne and Blackwater*, p. 205 .

146. *Ibid.*, p. 211.

147. M. O'Kelly, 'Surface collected flints', pp 114-9.

148. M. O'Kelly, *Newgrange*, pp 109-14.

The required engineering works, which included the construction of a reinforced concrete wall inside the prehistoric kerbstones, a concrete tunnel over the passage and a concrete cowl over the chamber, should have been considered to be far too extensive and invasive on this internationally important site. Further, such a radical restoration was not necessary for the stability and preservation of the site, which should have been the main concern of the Office of Public Works in whose care the monument rested. In the end, the 'archaeologically correct' design was not even adopted in full in the restoration but was altered to create more space at the entrance to facilitate visitors' numbers. This hypothesised vertical face could have been adequately illustrated on noticeboards placed at the site, as has been done for different periods of the more sensitively reconstructed Knowth complex.

Contrasting sharply with the approach taken at the main mound at Newgrange, a more sympathetic approach was later taken with the public presentation of the timber circle at Newgrange. No attempt was made at restoration of this 'Woodhenge' structure but there is a greater reliance on the use of noticeboards to explain the site to the public.

The public presentation of Knowth has involved the restoration of the satellite tombs based on the excavations findings. A restorative approach is possible for Knowth because, unlike Newgrange, there were few visible remains of these satellite tombs which could be presented in a coherent fashion to the public. The restoration gives the visitor a much greater sense of how this prehistoric cemetery appeared. The mound itself has been grassed over. A concrete overhang extends over the kerbstones in an effort to preserve the megalithic art.

The vast majority of these sites are designated in the Record of Monuments (table 3.1) but this does not automatically provide protection for them on a daily basis. Protected sites are still at risk from modern agriculture. Earthworks have their own inherent problems. Some monuments erode from natural causes as a consequence of loss of vegetation cover. Combating erosion is a feature of the work of British National Parks in, for example, the Yorkshire Dales and Dartmoor. Cultivation and livestock are the principal problems in the Bend of the Boyne. Ploughing represents the most significant threat to the erosion of these internationally important monuments. Unfenced, isolated monuments in arable areas develop their own problems such as damage from tree and shrub growth, as at Newgrange. At Newgrange annual ploughing had become the norm for the henge and environs of the satellite tombs. Integration of archaeology within land management schemes such as REPS and Set-Aside is essential (see chapter 9)

Conversion to permanent grassland is the best option for particularly sensitive areas in the park, or permanent set-aside for those prehistoric sites which have

been tilled in the past. Grazing animals are essential for good management, but the high stocking rates practised at Newgrange must be curtailed; rates should be low and preferably restricted to sheep. Ploughing, if it can not be prevented, must be kept a good distance from the perimeter of monuments. Systematic field walking should be undertaken, particularly in the immediate environment of the tombs to identify further industrial areas. On arable land, bollards could be erected to stop the encroachment of ploughing, but again, managers have to ask if any ploughing is acceptable in such extraordinarally rich archaeological deposits. The fencing-off of monuments is usually regarded as a last resort. If fencing takes place, the location of all post holes must be carefully recorded to avoid any confusion should the site ever be excavated.

If the record is to be managed, then up to date mapping of the present extent of knowledge is essential. The management team should include an expertise in examining the growing literature on landscape management policy. Recording and understanding are the prerequisites for proper management.[149] Ideally every archaeological site deemed worthy of preservation in the Record of Monuments and Places should have a management plan including a description of the condition of the site, a brief analysis of the potential threats to its survival with general recommendations for conservation works and future management.

Section 3D highlighted the renewed phase of public monument building during the Late Neolithic/Early Bronze Age in the Bend of the Boyne. The vast majority of these internationally important sites are legally protected by the Record of Monuments and Places and are designated National monuments (table 3.2). The timber circle at Knowth and that west of Newgrange are covered by a constraint but are not listed in the Record of Monuments and Places for county Meath. The area covered by the constraint for the cursus at Newgrange should be extended northwards to include a narrow enclosed field which is probably part of this monument. However legal protection alone will not ensure their protection. They have and are being very badly damaged. There is an immediate need for intervention to impede further site erosion and defacement.

Two main kinds of evidence exist: upstanding, earthen monuments; and subsurface remains. Each have their own inherent management problems. The recent excavations make clear that many of the more spectacular Late Neolithic/Early Bronze Age monuments in the Bend of the Boyne survive as fragile sub-surface remains, identifiable only through excavation or remote prospecting (i.e. resistivity and magnetrometry surveys). The area north of the river is a particularly sensitive archaeological area. Any attempt to disturb the area for development has resulted in the exposure of further remarkable

149. A. Streeten, 'Managing ancient earthworks: diagnosis, cure and prevention of erosion' in A. Berry and I. Brown (ed.), E*rosion on archaeological earthworks: its prevention, control and repair* (Clwyd, 1994), pp 5-15, see p. 5.

prehistoric remains. However patterns of activity are emerging which allow us to predict where archaeological deposits are most likely to occur. In the Late Neolithic/Early Bronze age, a close relationship has been established between henges and passage tombs. Ritual activity was focused around the passage tombs, in particular their entrances. Therefore, one would expect to find features in the area outside the western entrance at Dowth, for example. One would also expect Late Neolithic/Early Bronze age activity in close proximity to the other tombs in the passage tomb cemeteries. A continuous programme of aerial photographic coverage may help to identify sub-surface features in close proximity to the tombs.

The embanked enclosures have and are being very poorly treated. These are internationally important sites, so international standards of management should be used to ensure their preservation. Their large size and low banks have made them vulnerable to modern farming practices. The two henge monuments on the terrace below Newgrange have been virtually ploughed out. These sites are ploughed annually. The most impressive and best preserved henge in the Bend of the Boyne is that on the grounds of Dowth Demesne. This is an oval earthen amphitheatre with a domed interior, like a central dais and enclosing banks that still rise up to five metres in height. It is being eroded by stock where cattle congregate in areas of scrub along parts of the monument. There are also scars on the bank caused by rabbit infestation. The interior has been cultivated in the past. It is imperative that the henges be taken out of tillage and turned to permanent grassland with sheep grazing only.

Aerial photography should be taken at regular intervals to identify sub-surface features within and external to these sites. Photography could also highlight threats posed to these monuments by changes in land-use. It is an appropriate means of monitoring objectively any changes which occur in the condition of the earthworks.

During the Neolithic period, the Bend of the Boyne stood foremost amongst the ritual centres of Northern Europe. In its art and in it scientific achievement it is unparalleled. Even with the decline of this passage tomb civilisation, the area remained a focus for ritual activity and features one of the most significant concentration of Early Bronze Age ceremonial enclosures in Britain or Ireland. Despite this notoriety, farming practices are allowed continue which damage the fabric of these monuments. The record of official involvement has been uneven in regards to policies of protection and reconstruction. With the designation of this area as a World Heritage Property, there is the opportunity to introduce an international standard of realistic landscape management.

CHAPTER 4
EARLY HISTORIC LAND USE IN THE BEND OF THE BOYNE

4A Introduction

By the Middle Bronze Age (*c.*1400BC) small communities were settling on the south bank of the Boyne, on the ridge opposite the dishevelled, collapsed but recognisably 'otherworldly' mounds of Knowth, Dowth and Newgrange. This chapter identifies and interprets the landscape manifestations of cultural groups in the Bend of the Boyne spanning the last centuries BC through to the Early Christian period (*c.*200BC – *c.*1100AD). The study is divided into two chronologically distinct sections: pre-Christian/proto-historic land use (4B) and Early Christian land use (4C). The archaeological evidence in the pre-Christian period is discussed under the headings of environment, settlement, communication and burial practice. Proto-historical sources which contain topographical details are examined, such as the Pre-Patrician annals and *Dindshenchas Erenn,* which undertook to interpret landmarks in the landscape a millennium ago.[1] These early topographical descriptions are correlated with the physical evidence to evaluate their usefulness as a guide to the Bend of the Boyne before the coming of St Patrick. By the Early Christian period, we can place the study area in its geo-political context, and demonstrate how Early Christian society altered the landscape. Landscape features critical to the presentation of this period of the area's history will be identified. Actions and measures recommended for their management are contained within a concluding conservation statement (4D).

4B Pre-Christian land-use

4Bi - Environmental background The importance of palynology as a tool for the study of environmental change and human impact on the landscape was emphasised in Chapter 3. Amazingly, no local pollen profile covers this later pre-historic/early historic period in the Bend of the Boyne. However, an area of bog in Crewbane townland and a lake at Ballyboy (Dowth townland) may prove worthwhile for future sampling (fig. 4.1). The nearest pollen profiles to this study area are those taken from Redbog and Essexford Lough in county Louth, 35km north of the study area. They were generated by a palynological study of the last millennium BC and first millennium AD in an area of good agricultural

1. W. Hennessy and B. McCarthy (ed. and trans.) *Annala Uladh, Annals of Ulster, otherwise, Annala Senait, Annals of Senat: A chronicle of Irish Affairs from AD 431 to AD 1540* (4 vols, Dublin, 1887-1901); S. MacAirt and G. Mac Niocaill, *The Annals of Ulster (to AD 1131)* (Dublin, 1983). Dates from these two sources are prefixed by AU. J. O'Donovan, *Annala Riogachta Eireann. Annals of the kingdom of Ireland by the Four Masters from the earliest period to the year 1616* (seven vols, Dublin, 1848-51). Dates from this source are prefixed by AFM.

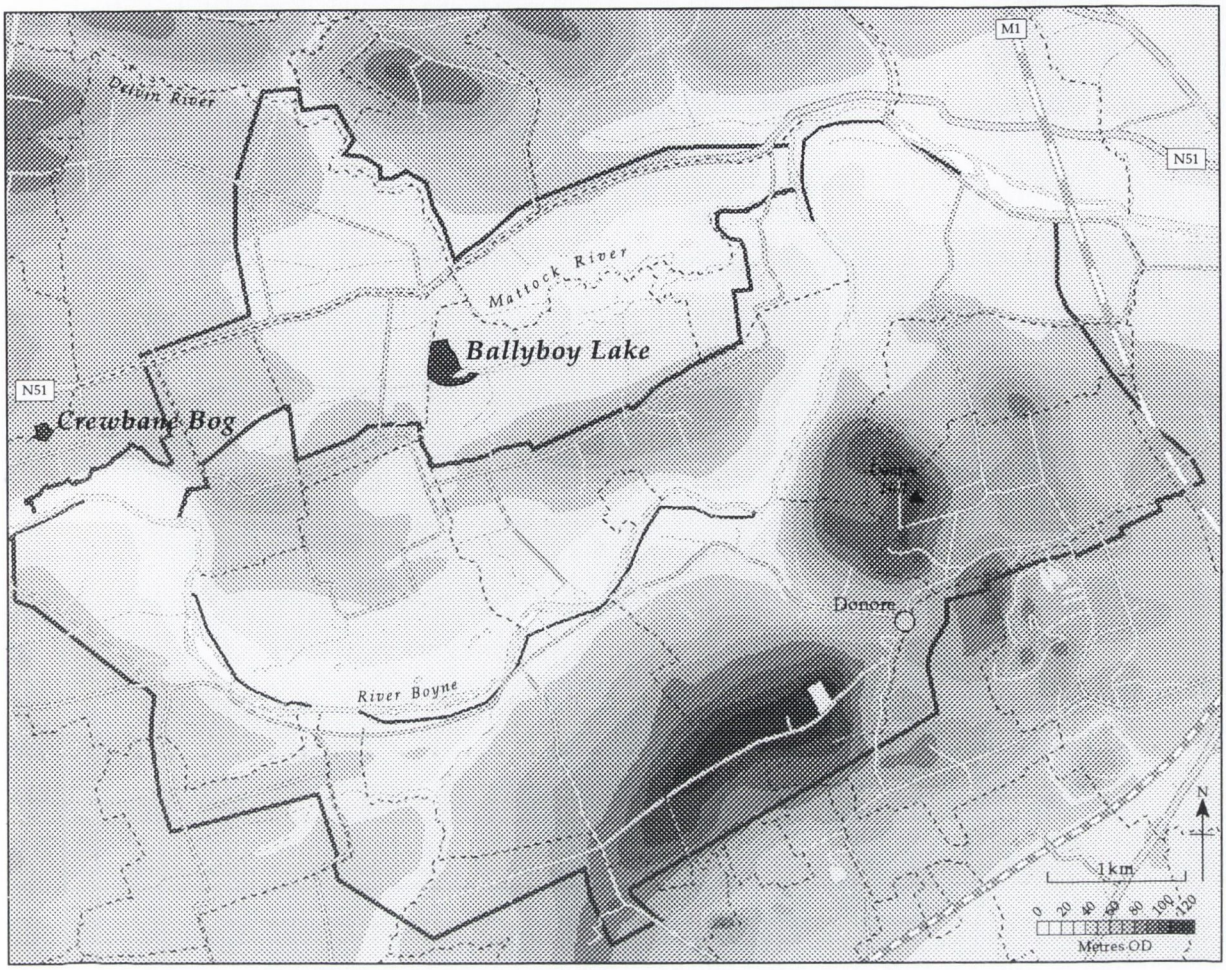


Fig. 4.1 The location of Ballyboy Lake and Crewbane bog; two sites where pollen analysis could tell us a great deal about the landscape history of the Bend of the Boyne.

potential in the east of Ireland.[2] This analysis is too far away to have a direct application to the landscape history of the Boyne valley; however, it presents a general picture of a predominantly pastoralist Iron Age economy with a modest arable component. Archaeo-botanical evidence for arable agriculture for this period is virtually non-existent.

The majority of sites sampled in Ireland show woodland regeneration and significantly reduced agriculture for the period 200BC to 200AD, followed by dramatic clearances and a developed arable agriculture.[3] This is often referred to as the 'late Iron Age lull' (LIAL) which has been interpreted as a major fall in population nationwide with some areas abandoned. The unprecedented burst of agriculture succeeding this lull has been associated with the influx of people from outside Ireland, possibly from north Britain entering through Ulster.[4]

The supporting archaeological evidence is the appearance of the beehive quern in Ireland. This quern type was introduced from the Yorkshire-South Scotland area where they were in use in Ireland over a six-century period, spanning the second century BC to the fourth century AD.[5] Given that these objects are associated with cereal processing, their introduction is associated with the expansion of arable agriculture. This underlines the significance of the discovery of such a quern at Newgrange, found on an exposed riverbed near the north bank of the Boyne.[6] It is an upper stone from a rotary quern with a funnel-shaped hopper (the diagnostic feature of beehive-type querns) made of local sandstone. Its discovery confirms, if such a confirmation were needed, the practice of tillage farming along the banks of the river Boyne in the early centuries AD (fig. 4.2).

4Bii Settlements Identifying the homes and settlements of Iron Age communities is notoriously difficult: 'Iron Age houses of demonstrably domestic character are extremely elusive in Ireland'.[7] The meagre evidence from outside the Bend of the Boyne suggests that we should be looking for the remains of small, timber-built hut sites. The possibility that tent-like structures were used is raised by the discovery of wooden pegs in association with an Iron Age road at Corlea, county Longford.[8] Certainly there are frequent references to

2. D. Weir, 'A palynological study of landscape and agricultural development in county Louth from the second millenium BC to the first millennium AD' in *Discovery Programme project results 2* (Dublin, 1995), pp 77-126.

3. *Ibid.*, p. 106; G. Stout and M. Stout, 'Early landscapes: from prehistory to plantation' in F. Aalen, K. Whelan and M. Stout (ed.), *Atlas of the Irish rural landscape* (Cork, 1997), pp 31-63, see p. 45, fig. 39.

4. Weir, 'Palynological study, p. 108.

5. S. Caulfield, 'The beehive quern in Ireland' in *Journal of the Royal Society of Antiquaries of Ireland*, cvii (1977), pp 104-38.

6. E. Kelly, 'Two quernstones from county Meath' in *Riocht na Midhe*, vii (1984), pp 104 -111, see p. 104.

7. B. Raftery, *Pagan Celtic Ireland* (second ed., London, 1997), pp 112-3.

8. *Ibid.*, p. 113.

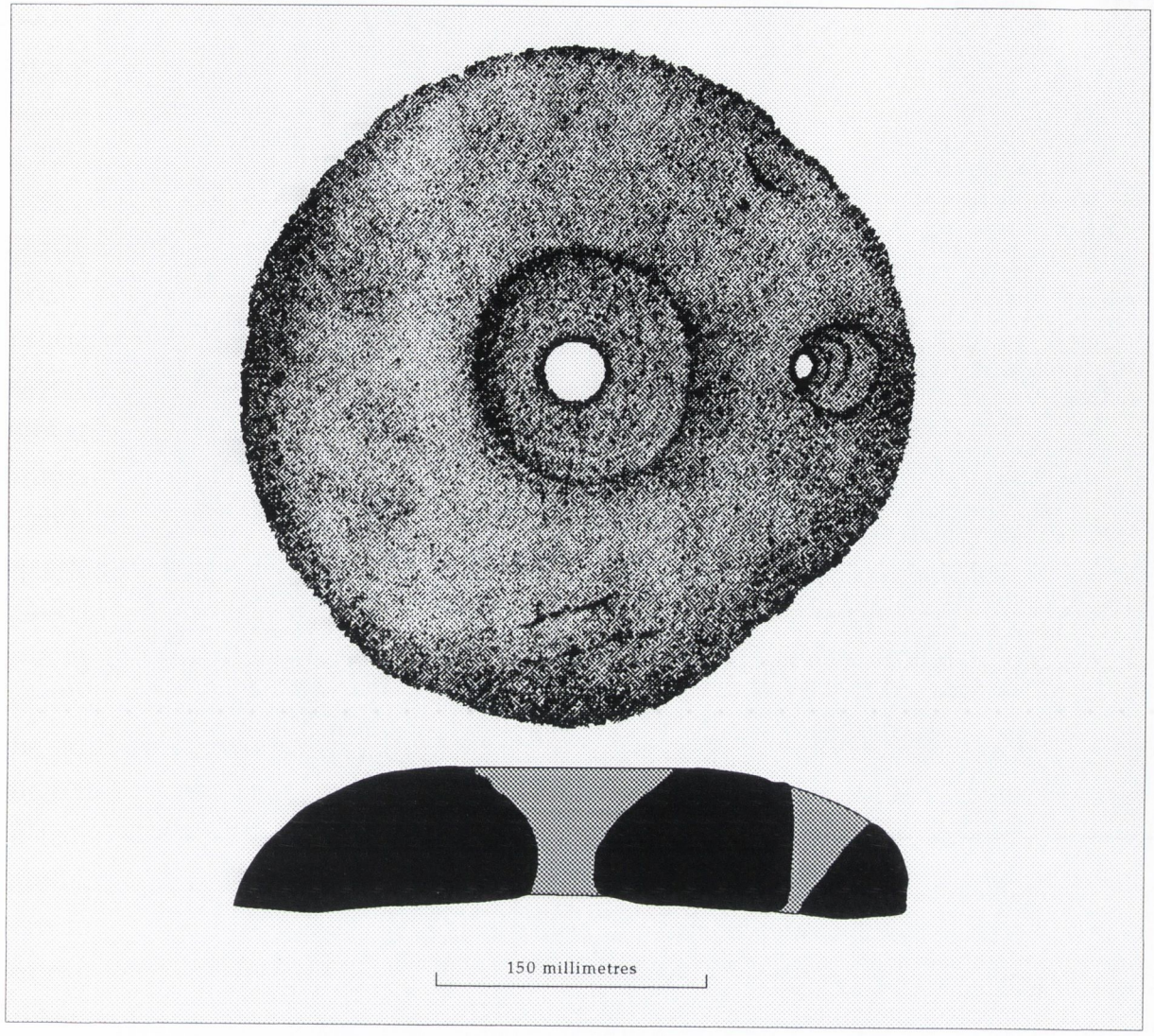


Fig. 4.2 Beehive quern from the river Boyne below Newgrange (after Caulfield, 1984).

encampments of pitched tents in the early sagas associated with the Boyne. In the saga *Cath Ruis na Rig,* for instance, Conchobor macNessa orders *'Gniter ar mbotha agus ar mbelscalain* (the tents to be erected) at a *longport* (encampment) at Rossnaree overlooking the Boyne.[9]

Knowth is currently the only site in the Bend of the Boyne identified as a pre-Christian domestic site; even that is open to question as no actual domestic structures have been identified. At some stage in the first half of the first millennium AD, the main passage tomb mound at Knowth was enclosed by two concentric, pennanular ditches, centred on the summit of the mound, an area 40m in diameter (fig 4.3).[10] There was an opening in the south-east. The lower ditch, which enclosed the base of the mound, had silted up by the late eighth/early ninth centuries when houses and souterrains were built on and inserted into the fill, evidence which offers a *terminus post quem* for its construction. The summit of the mound was damaged early in the last century by quarrying which removed any structural remains associated with this fortification. Its substantial nature indicates the presence of a large community in the immediate environs of the site. A breakdown of the faunal remains from the ditch fill shows that cattle predominated, followed by pigs and sheep.[11] The range of faunal remains from the Knowth ditch compares broadly with those from the late Iron Age inauguration site at Dún Ailinne in county Kildare, whose faunal remains have been interpreted as remnants of periodic feasting.[12] Therefore, the function and dating of this structure at Knowth are by no means certain. It is just as likely to represent the initial phase of the Early Christian horizon.

4Biii - Communications; internal and external Just prior to and during the early centuries AD, the period which coincides with the Roman occupation in Britain, communities living in the Bend of the Boyne would have had ready access to the Irish Sea, and were geographically well placed to enjoy the developing trade with Britain. The area of the east coast between the Liffey and the Boyne has been identified as the key contact point with the Roman world (fig. 4.4).[13] Contact between merchant communities either side of the Irish sea had begun towards the end of the Iron Age. The Roman historian Tacitus wrote of Ireland at the end of the first century AD:

---

9. E. Hogan (ed. and trans.), *Cath Ruis na Rig for Boinn,* (Dublin, 1892), p. 33.

10. G. Eogan, 'Iron Age and Early Christian settlement' in V. Markotic (ed.), *Ancient Europe and the Mediterranean: studies in honour of Hugh Hencken* (England, 1977), pp 69-76; G. Eogan, 'The archaeology of Brugh na Boinne during the early centuries AD' in *Seanchas Ard Mhacha,* v (1990), pp 20-34, see pp 24-5.

11. G. Eogan, 'Prehistoric and early historic culture change at Brugh na Boinne' in *R.I.A.Proc.,* C, xci (1991), pp 105-132, see p. 118.

12. Raftery, *Pagan Celtic Ireland,* pp 73-4.

13. J. Bateson, 'Roman material from Ireland: a re-consideration' in *R.I.A.Proc.,* C, lxxv (1973), pp 21-97, see p. 36.

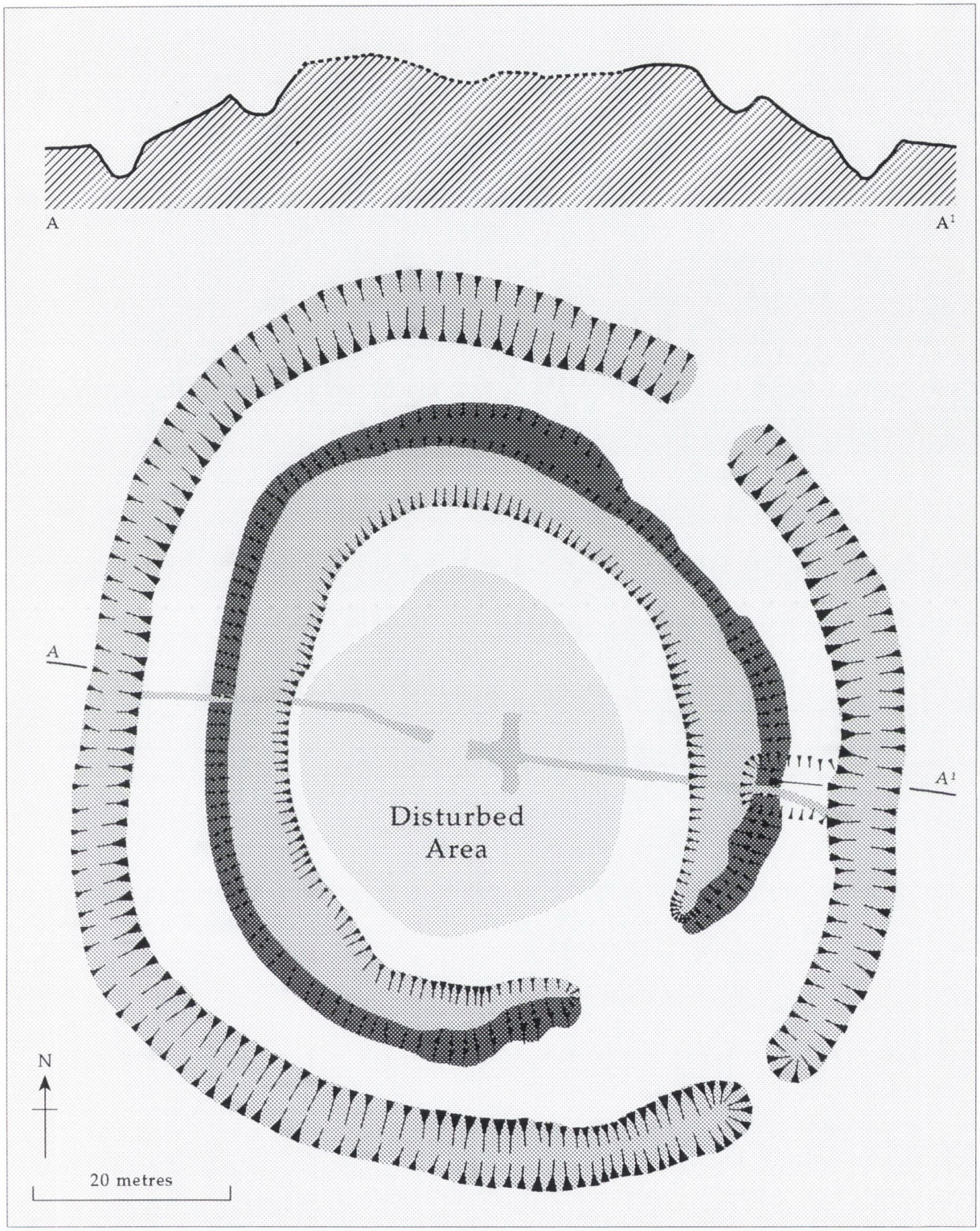


Fig. 4.3 Ground plan and section of the 'Iron Age' features at Knowth (after Eogan, 1990).

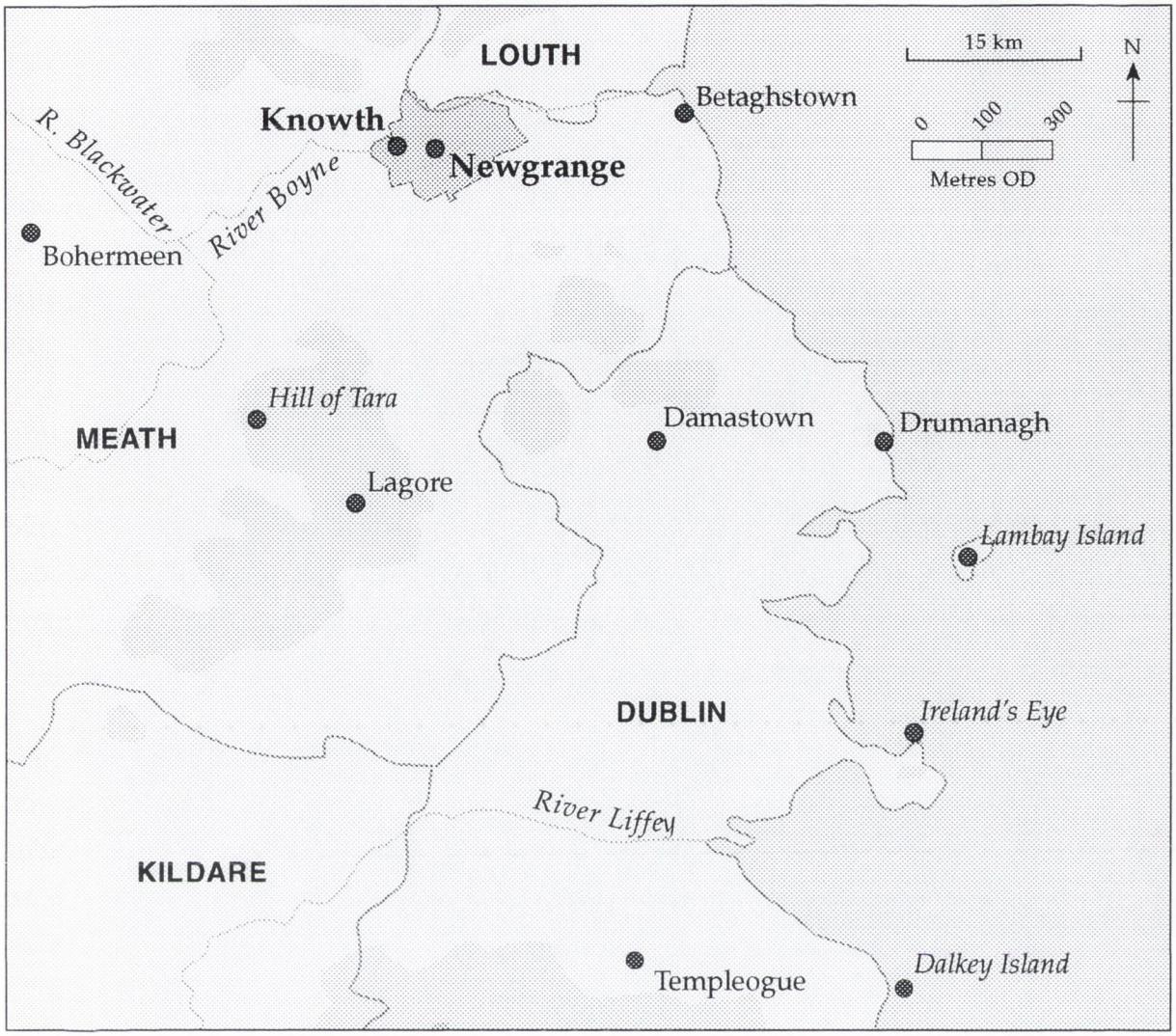


Fig. 4.4 Locations where Roman material has been discovered (after Bateson, 1973).

> The interior parts are little known but through commercial intercourse and the merchants there is better knowledge of the harbours and approaches.[14]

The Boyne valley or *Bouvinda* has been positively identified in Claudius Ptolemaius's mid-second century survey of the known world. This important document, based largely on information gleaned from Roman merchants, located rivers, lakes, capes, tribes and population centres by degrees of longitude and latitude. A map of Ireland has been reconstructed from co-ordinates given in his work (fig 4.5).[15]

The boat used by merchants travelling the inland waters of the Boyne was presumably similar to the early Roman boat found in Lough Lene, county Westmeath. This was a slender, flat bottomed boat with steep-sides, built of planks held together with tenons, mortices and pegs.[16] On the basis of its unusual mode of construction, this vessel is considered to be either a Roman import or a boat built by someone from the Mediterranean ship-building tradition. Its construction suggests a date of not later than the fourth-century AD.

Artifactual evidence for contact with Roman Britain has been identified from the two major excavations at Knowth and Newgrange. Roman finds from Knowth include: a piece of Samian ware; a rim-sherd of Central Gaulish manufacture of Antonine age (*c.*138AD); a toilet implement of bronze which may be a ligula (a spoon used for extracting cosmetics out of a jar); and two tweezers of Romano-British style (one bronze, one iron).[17]

At this time the entrance to Newgrange passage tomb would not have been visible and the collapsed mound would have extended to surround the base of the outer stone circle. A traveller or pilgrim would have seen a high, flat-topped mound with sloping sides.[18] Nonetheless, to judge from the prestigious offerings deposited there, Newgrange was venerated as a shrine by pilgrims of high social status over a prolonged period from the first to the late fourth century AD.[19] Roman coins of high value and personal ornaments of silver and gold, including finger rings, brooches, glass beads and earrings, were placed as votive offerings in front of the main tomb at Newgrange in the neighbourhood of the three tall stones of the stone circle.

---

14. Quoted in Raftery, *Pagan Celtic Ireland*, p. 204.

15. G. Orpen, 'Ptolemy's map of Ireland' in *Journal of the Royal Society of Antiquaries of Ireland*, xxiv (1894), pp 115-28; J. Andrews, *Shapes of Ireland* (Dublin, 1997), pp 26-9.

16. A. Brindley and J. Lanting, 'A Roman boat in Ireland' in *Arch. Ir.*, iv, (1990), pp 10-11; Raftery, *Pagan Celtic Ireland*, pp 208-9.

17 Bateson, 'Roman material', p. 80; Eogan, 'Brugh na Boinne', p. 24.

18 R. Carson and C. O'Kelly, 'A catalogue of the Roman coins from Newgrange, county Meath' in *R.I.A.Proc.*, C, lxxvii (1977), pp 35-55, see p. 45.

19. *Ibid.*

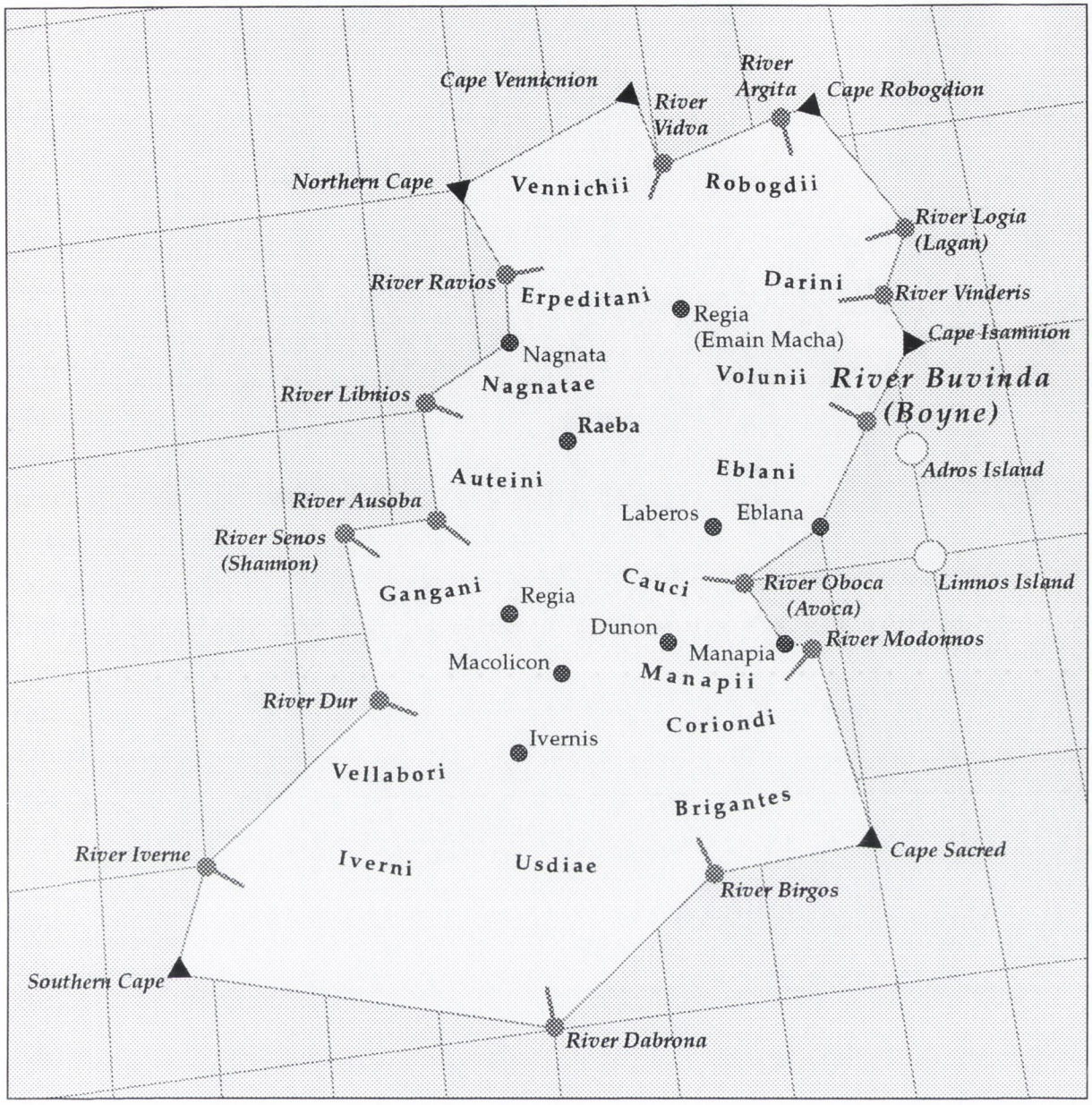


Fig. 4.5 Claudius Ptolemaius's 'map' showing the location of the river Bovinda [Boyne] (after Andrews, 1997).

The most likely explanation for these Newgrange deposits is that they were gifts from Romano-British traders, doing homage to the local (Irish) gods.[20] The objects also include specimens of recognisably native British workmanship such as disc brooches. There are a few native Irish objects; a bronze bridle bit and a strap loop with La Tène design.[21] Newgrange was a focus of devotion for both a foreign and native population, possibly members of a warrior caste.[22] Such practices were common for the time and were occurring at other temple sites and early burial mounds (such as West Kennet long barrow) in Roman Britain and Ireland. However, the high value of the offerings left at Newgrange is unprecedented.[23] Newgrange, unique for its passage grave elaboration as a solar observatory, retained a special sacred position into the Iron Age. Consequently, it never became a focus of domestic settlement, unlike Dowth and Knowth.[24]

The Bend of the Boyne also lay astride a major overland route, a highway between Tara and Ulster known in early medieval 'placelore' as the *Slighe Midluachra*.[25] This highway crossed the Boyne by the ford of Brow (Brugh) just below Newgrange and near the old Rossnaree mill. Early texts trace its route from Tara to Ulster via the ford of Newgrange (Brugh Meic an Oigh), Rossnaree (Dubhros), and on to Sliabh Bregha near Mellifont (fig 4.6).[26] The discovery of a bronze bridle bit from Newgrange and horse bones at Knowth suggests that some of the traffic on this route was horse drawn.[27]

3Biv – Burial practice Iron Age burials in the Bend of the Boyne are in simple unmarked graves, which nevertheless contain impressive grave goods. Excavations at Knowth have revealed thirty-five mostly female inhumations. Thirty-one of these are in pits, four in cists, with extended, crouched (the majority), and disturbed human remains. These burials are referred to in the literature as Iron Age in date.[28] However, this is not entirely justified as only

20. C. Thomas, *Christianity in Roman Britain to AD 500* (London, 1982), p. 297.

21. Raftery, *Pagan Celtic Ireland*, pp 47.

22. C. Swift, 'Pagan monuments and Christian legal centres in early Meath' in *Riocht na Midhe*, ix (1996), pp 1-26, see pp 6-7.

23. S. Piggot, *The West Kennet Long Barrow* (London, 1962), pp 55-6.

24. M. O'Kelly, *Newgrange: archaeology, art and legend* (2nd ed., London, 1994), p. 47.

25. This interpretation is at odds with views expressed in C. Ó Lochlainn, 'Roadways in ancient Ireland' in J. Ryan (ed.) *Essays and studies presented to Professor Eoin Mac Néill* (Dublin, 1940), pp 465-74. Ó Lochlainn, influenced by the modern road system, incorrectly placed Dublin at the focal point of the road network; see G. Stout and M. Stout, 'Patterns in the past: county Dublin 5000BC-1000AD in F. Aalen and K. Whelan (ed.), *Dublin from prehistory to present – studies in honour of J. H. Andrews* (Dublin, 1992), pp 5-25, see p. 15.

26. M. Dobbs, 'Some ancient placenames' in *Journal of the Royal Society of Antiquaries of Ireland*, lvi (1926), pp 106-118, see p. 108.

27. G. Eogan, 'Some passage graves, unprotected inhumation burials and a settlement site at Knowth, county Meath' in *R.I.A.Proc.*, C, lxxiv (1974), pp 2-112, see p. 76.

28. Raftery, *Pagan Celtic Ireland*, p. 196, fig. 121.

about one-third were accompanied by dateable grave goods. Some may in fact be of Neolithic date and the four cist burials, aligned east-west and without grave goods, are probably of Early Christian date.[29] These burials were found around the main mound and a number were actually placed in the passage tombs.[30] One undated burial was found in the bottom of the outer pennanular ditch. Dates between 190BC and 250AD have been established using C14 in four instances, but there are also later dates.[31] The most notable of these inhumations was a double burial of adult males, both decapitated, who were laid head to toe, accompanied by a number of gaming pieces and bronze rings, one with Irish engraving.[32] The gaming pieces were made from bone, in three cases horse bone. Small rectangular plaques, the remains of a pegged board game, were also found with this double burial. The sagas contain many descriptions of such leisure activities, corroborated here by the archaeological evidence.

4Bv – Proto-Historic sources

Dindshenchas Erenn In the study of pre-Christian landscapes, scholars have attempted to correlate early topographical descriptions of sites contained in *Dindshenchas Erenn* with field evidence. This is done to identify Early Historic sites and gain some insight into their original function. *Dindshenchas Erenn* also highlights sites which Early Christian society considered important. The Dindshenchas incorporates a group of Middle Irish (AD 900-1200) legends preserved in prose and poetry which purport to explain the origin and background of the names of the most prominent natural and man-made features in Ireland. The first element of the word, *dinn* (literally meaning hillock, raised ground or landmark) and the second element *senchas* (lore), refer to the traditional lore of Irish places.[33] Many of these early stories contain topographical and geographical detail which allow one to locate the places described. The Dindshenchas is contained in differing versions in the manuscripts of the *Book of Leinster* dated to the twelfth century and the *Book of Ballymote* dating to the fourteenth/fifteenth century. The accuracy of the information contained in the Dindshenchas has become apparent over recent years and has been used most successfully in the study of monuments on Tara Hill, county Meath. Here its accuracy demonstrates that it was based on an intimate knowledge of the

29. Eogan, 'Some passage graves', p. 70; Eogan, 'Brugh na Boinne', p. 24.

30. G. Eogan, 'Excavations at Knowth, county Meath' in *R.I.A.Proc.*, C, lxvi (1966), pp 199-382, see 365-73; Eogan, 'Some passage graves', pp 68-87.

31. Raftery, *Pagan Celtic Ireland*, p. 195.

32. Eogan, 'Some passage graves', pp 73-78; Raftery, *Pagan Celtic Ireland*, p. 157.

33. C. Bowen, 'An historical inventory of the Dindshenchas' in *Studia Celtica*, x-xi (1975-6), pp 113-37; E. Bhreathnach, *Tara: a select bibliography* (Dublin, 1995), p. 27.

monuments, to such an extent that it is considered by one scholar of early Ireland as 'tantamount to a medieval survey of the hill'.[34] Similarly, a number of prehistoric and potential early historic sites in the Bend of the Boyne have been pinpointed using this source, notably the site of the House of Cleitech at Rossnaree and the Breasts of Morrigan at passage tombs K and L at Newgrange (see below) .[35] A systematic examination of the source has never previously been attempted for the Boyne valley.

Table 4.1
Frequently used topographical terms in *Dindshenchus Erenn*[36]

Barc	Ship, boat-shaped structure
Carn	Mound, hillock
Comad	Grave
Duma	Mound, tumulus, barrow
Fan	Slope, depression, hollow
Fert	Mound
Forad	Mound, platform
Lecht	Grave, tomb
Lia	Pillar, standing stone
Lige	Grave, flat burial place
Mur	Wall, rampart
Raith	Earthen fort, rath
Suide	Seat
Tech	House, dwelling

The following discussion identifies known and unknown sites from the Boyne preserved in this corpus of place-lore known as *Dindshenchus Erenn*. The *dindshenchus* is contained in differing manuscripts and in various forms, including prose, poems and legends. These deal specifically with individual places, with the exception of the *dindshenchus* for *brug* which encompassed a complex of sites in the immediate environs of Newgrange.

Table 4.2
Sites mentioned in *Dindshenchus* for *Brug*

Brug na Boinde I and	Brug na Boinde II	Book of Ballymote Stanza 1	Book of Ballymote Stanza 2	Record of Monuments Places
Tech Mic ind Oc	Sid (i mBruig Mac ind Oc)	Lecht in Dagda	Imdae in Dagda cetamur	Newgrange Passage tomb 19:45
Ingen Foraind	Lies on the valley foor	Long ingine Foraind		15:58
Lind Feic na Fian (west of Newgrange)				Rossnaree

34. C. Newman, *Tara: an archaeological survey* (Dublin, 1997), p. 2; Bhreathnach, *Tara*, p. 27.

35. E. Hickey, 'The house of Cleitech' in *Riocht na Midhe*, iii (1965), pp 181-85; M. O'Kelly, F. Lynch and C. O'Kelly, 'Three passage graves at Newgrange, county Meath' in *R.I.A.Proc.*, C, lxxviii (1978), pp 249-352, see p. 332.

36. Royal Irish Academy, *Dictionary of the Irish language* (Dublin, 1913-76).

In ben mor, in Dagda donn	Imdai nDagdai deirg (on the slope)			
Lecht in Mathai	Matha's (cairn, duma ndur)	Lecht in Matae	Duma na Cnamh	Newgrange U passage tomb
Liac budi bain (Boadain)	Finns Seat		Liag Buidi	
Fertai na Failenn				
Cellach's (grave)	Lecht Cellaig		Lecht Cellaigh	
Barc brainech	Sea tide visits your stead			
Crimthainn Nia's (grave)		Barc Crimthaind Nianair		
Niall's (grave)				
Fintan Feradach's (grave)				
Tuathal Techtmar's (grave)				
Fedelmed Rechtach's the lawgivers (grave)		Fert Fedelmid Rechtmaid, the lawgiver		
Conn Cet-Chatach's (grave)		Carn ail (stone cairn) Cuinn Cet-Cathaig		
Cormac's (grave) trag le Ros na Rig				
Cairpre Lifeachair's (grave)		Cumot (commensurate stone) Cairbre Lifeachair		
Fiachu Sraptine's (grave)		Fulacht Fiachach Sraiptine		
Muiredach Tirech's (grave)				
	Da Cich rignai (West of fairy mansion)	Mur na Morrigna	Da Cic na Morrigna	Newgrange K and L 19:46
	Mac ind Oc áth			Ford of Rossnaree
	Duma Treisc		Duma Tresc	
	Ferta Esclaim (path of grace)		Fert Esclaim, britheman in Dagda (Fert-Patric-today)	Newgrange cursus and mound (19:45)
	Derc mBuailc		Derc m-Buailc m-Oic	
	Lecht Gabra ind rig		Lecht gabra Cinaoda	
	Currel na mna		Da cnoc-Cirr and Cuirrell, mna in Dagda"	
	Aed Lurgnig's (grave) hillslope		Ferta Aedha Luirgnigh	
	Carcar ind Leith imbai in Liath		Carcar Leith Machae	
	Glend i mbid Matha		Glenn in Matae	

Caiseal nOengussa	Caisel Aengusa	Newgrange henge 26:06
	Firt m-Boinne mna Nechtain	
Lecc Bend (Mata killed)	Lecc Benn	Standing stone (19:53)

Ua hArtagan's (d. 975) poem 'Brug na Boinde I' celebrates the pre-Christian warriors who are buried at the Brú, described by the poet as 'the centre of champions'.[37] This poem represents the first historic survey of the Brú in which individual monuments are interpreted in the light of traditional mythology. In the first part, the poem describes the graves of particular individuals still visible at the time of writing and then proceeds to list individuals known to have been buried there. The graves of the latter were not visible during his time of writing. A further *dindshenchas* poem, 'Brugh na Boinde II' by Macnia MacOengusa, is preserved in the Book of Leinster (*c.*1160). In the first stanza, the author asks the nobles of Brega if they know the story of 'every lord that is here in the brug of Mac ind Oc'.[38] The author is familiar with the area and the location of the individual graves. He begins his inventory from the top of a ridge ('above your stead') and works down hill to the river side.[39] The poem describes sixteen sites in the Brú which lie in the immediate vicinity of Newgrange. Another 'inventory style' version of the *dindsenchus* for the *Brug* is in the *Book of Ballymote* .[40]

These sources describe the topography of Newgrange. The lush pastoral landscape of the Boyne Valley is introduced in an opening stanza.

> Every bright wonder hath adorned thee,
> O clear shining plain with scores of hosts,
> O lucent land of grass and waggons,
> O virgin mead of birds and islands![41]

The references to 'trág na Rossnaree' and 'a barc brainech' ('where the sea-tide visits your stead') suggests that there was a shoreline below Newgrange and that the Boyne was tidal as far as Rossnaree at this time.[42] This would place

37 E. Gwynn (ed. and trans.), *The Metrical Dindshenchas, part iv* (Dublin, 1924), pp 11-17.

38. *Ibid.*, pp 18-25.

39. *Ibid.*, p. 10-11.

40. Quoted in G. Petrie, *The ecclesiastical architecture of Ireland anterior to the Anglo-Norman period* (Dublin,1845), pp 102-3.

41. Gwynn, *Metrical Dindshenchas*, pp 10-11. It is necessary to rely on Gwynn's flowery Victorian-style translation as no more recent edition exists.

42. *Ibid.*, pp 12-15.

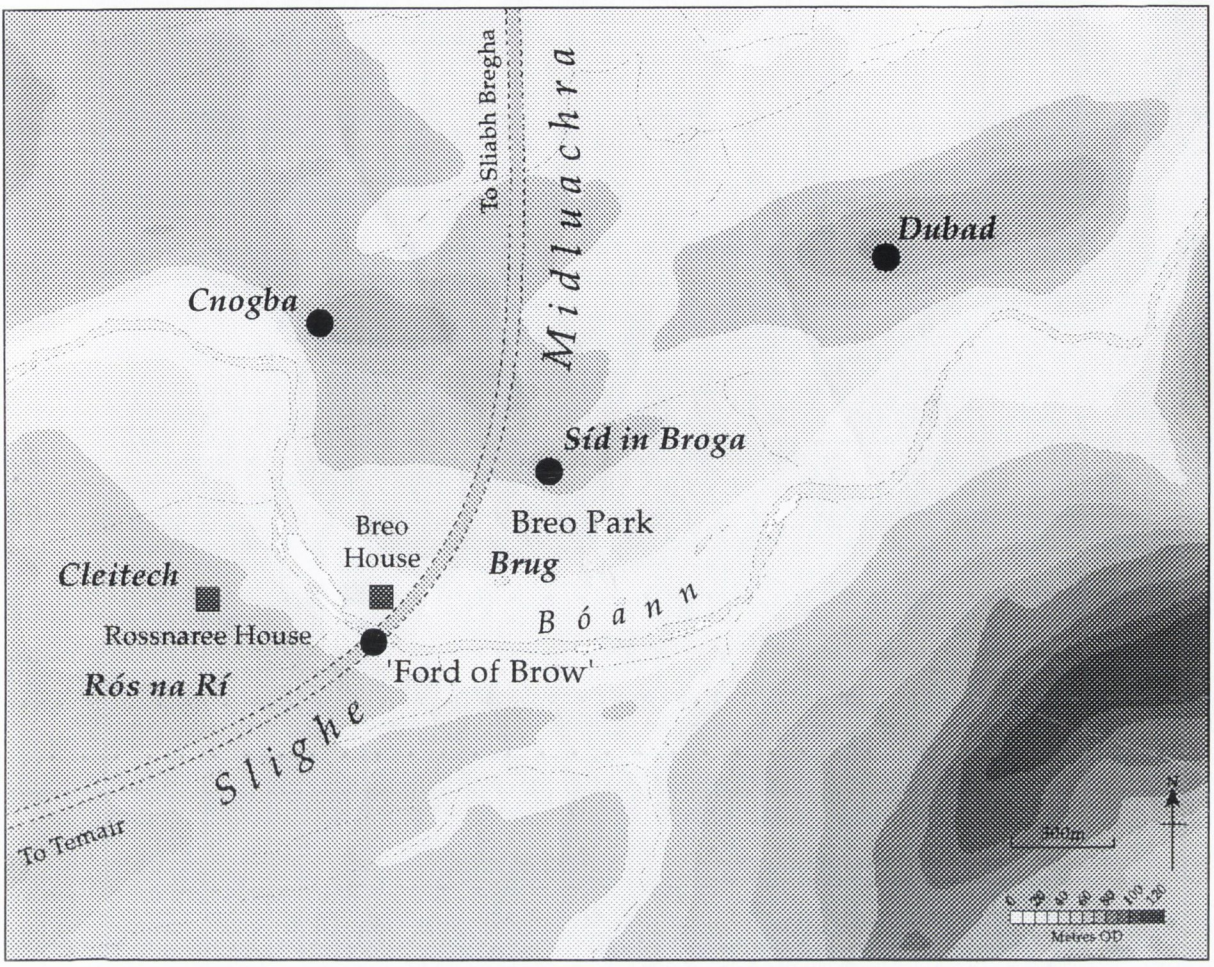


Fig. 4.6 The Slighe Midluachra and other proto-historic sites in the Bend of the Boyne.



Fig. 4.7 Conjectural map of places mentioned near 'Brug' in *Dindshenchus Erenn*.

the ford (áth) at Rossnaree at the tidal limit, making it the most easterly crossing point on the Boyne.[43] The Slighe Midluachra took advantage of this fact and it is also possible that the Vikings utilised this shore (see below).

The Brugh na Boinde I describes another riverine feature, the location of which has a bearing on St Patrick's movements in the area (see below 4Ci). *Lind Feic na Fian* (the pool of Fiacc of the warriors) lies west of Newgrange.

> I see the clear pool of Fiacc of the warriors
> west of you [Newgrange], – not feeble the deed –
> till the day of Doom – mighty boast –
> shall he abide on the slope of the royal rath.[44]

This pool is named after Feic who is mentioned in the saga *Cath Ruis na Rig* (see below). In Agallamh na Senorach, *Linn Feic* is situated on 'the bright-streaming Boyne'.[45] If this is the same Fiacc commemorated in *Ferta fer Feic*, this would indeed suggest a location near the ford at Rossnaree, making it the same pool which is termed Linn Ross in the annals (AU 842).

There is some consistency between the three versions of the *dindshenchas* for the *brug*. The inventory of sites in Brug na Boinde II is almost identical to those listed in the second stanza of the later *Book of Ballymote*. Some sites, such as the primary monument (Newgrange passage tomb) and the grave of Matha (probably Newgrange U), are repeated in all versions (table 4.2, fig. 4.7). The association of Newgrange with Dagda is repeated in numerous early tales. According to a story in the eleventh-century *Book of Lecan*.

> The Dagda built a great mound for himself and his three sons, Aengus, Aed and Cermaid. It was upon these four men that the men of Erin made the Síd of the Brugh.[46]

The two mounds associated with Morrigan are repeated in three versions and have been identified as the passage tombs Newgrange Sites K and L on the basis of locational detail given in the poems:

> Behold the two breasts of the king's consort
> here beyond the mound west of the fairy mansion:
> the spot where Cermait the fair was born,
> behold it on the way, not a far step.[47]

These *dindshenchas* texts describe morphologically different types of sites including cairns, mounds and standing stones. This range of sites is visible

---

43. *Ibid.*, pp 18-19.

44. *Ibid.*, p. 11.

45. S. O'Grady (ed. and trans.), *Silva Gaedelica, (i.-xxxi): A collection of tales in Irish with extracts illustrating persons and places* (London, 1892), p. 103.

46. Quoted in J. O'Donovan, *Annala Riogachta Eireann. Annals of the kingdom of Ireland by the Four Masters from the earliest period to the year 1616* (seven vols, Dublin, 1848-51), i, p. 22.

47. Gwynn, *Metrical* Dindshenchas, pp 18-19.

within the townland of Newgrange today but one cannot match existing monuments and *Dindshenchas* references with precision. For example, the *Ferta Escláim* ('the path of grace') could refer to the cursus at Newgrange but the point cannot be pressed too far.

> The trench of Esclam, pilgrimage revered,
> where good men used to cast questions:
> a sward with a brave portion, a deed without concealment,
> for the son of Calpurn it was a path of grace.[48]

There are two standing stones mentioned in Brug na Boinde I and II and there are two standing stones south of Newgrange. The linkage is likely but not certain.

The *dindshenchas* also mentions monuments in the Newgrange area which have not been identified . A fulacht fiadh is associated in one poem with Fiacha Sraibhtine, an individual who also received an annalistic entry for AFM 276, and there are two references to boat-shaped burial mounds which could describe Viking burials.[49] None of these features are identifiable in today's landscape.

The topographical descriptions of *brug* contained in these poems refer to a limited area in the immediate environs of Newgrange. The *brug* as a place-name still lingers, in somewhat corrupted forms, in that townland only. The field in which the mound at Newgrange lies is called Breo Park and in its immediate vicinity lie Breo House, Breo Lock (on the canal) and the Ford of Brow.[50] The Ford of Brow was still described as such in eighteenth-century estate maps (see chapter 7). The fact that all these placenames lie within the townland boundaries testifies to the antiquity of this territorial unit. It must also mean that the townland was called Brugh before it came into the ownership of the monks at Mellifont in the twelfth century. However, since Wilde in 1849, this term has been falsely applied to the greater Bend of the Boyne area.[51] This inaccuracy has found its way into the literature and in all interpretative material used in the Brú na Bóinne visitor centre. Strictly, both the name of the centre and the current literature should be altered in recognition of this indisputable historical truth.

There is a separate *dindshenchas* for Cnogba (Knowth), Cleitech (Rossnaree) and Dubad (Dowth). The Dindshenchas poem for Cnogba associates the mound with Englec, the daughter of Elcmar, two individuals not associated with *Brug*.[52] The correct old Irish name is Cnogba, translated as Cnoc Bua in *dindshenchas*.

---

48. *Ibid.*, pp 20-21.

49. *Ibid.*, pp 12-15; Petrie, *Ecclesiastical architecture*, p. 100.

50. J. Laverty, 'Miscellanea: Newgrange still called by its ancient name, Brugh na Boinne' in *Journal of the Royal Society of Antiquaries of Ireland*, xxii (1892), p. 430; T. Westropp, 'Ancient place-names, Brugh of the Boyne and others' in *Journal of the Royal Society of Antiquaries of Ireland*, xxxvi (1906), pp 82-3.

51. W. Wilde, *The beauties of the Boyne and Blackwater* (Dublin, 1847), p. 184.

52. Gwynn, *Metrical Dindshenchas*, , pp 42-7.

However, it has been argued that the true root is more likely to be *Cnoc Buí* (the yellow hill) but the eleventh-century author consciously sought to associate the burial mound with the Celtic hag and local mother-goddess Bua. She is associated with many megalithic tombs and presented as a builder of megaliths in Early Irish lore.[53] What is perhaps more significant about this *dindshenchas* is the wooded landscape in which Cnogba lies. Its environs provided *the guba immon cnocan* (blood red nuts) for Oengus and his band.[54] There is still deciduous woodland below Knowth at Crewbane, a designated Natural Heritage Area. Cnogba's position 'in the midst of Brega', not highlighted in the Newgrange poems, could be an oblique acknowledgement of Knowth's status as a royal site.[55] The poem for Cnogba also includes an origin tale for the passage tomb at Dowth.

Dubad (Dowth), or Cnoc Dubada (also termed Ferta Cuile) is described in the *dindshenchas* , providing an explanation for its name:

> All the men of Erin were gathered from every quarter... to build a tower like the tower of Nimrod... His sister came to him, and told him that she would stay the sun's course in the sky, so that they might have an endless day to accomplish their task... Night came upon them, for the maiden's magic was spoiled... 'since darkness has fallen upon our work, and night has come on and the day is done, let each depart to his place. Dubad (darkness) shall be the name of this place for ever'.[56]

It also describes its original flat topped mound, like the mound at Newgrange, prior to its conversion to a motte in the twelfth century (see chapter 5):[57]

> When it was no longer day for them thereafter
> (it is likely that it was night),
> the hill was not brought to the top,
> the men of Erin depart homeward.
>
> From that day forth the hill remains
> without addition to its height:
> it shall not grow greater from this time onward
> till the Doom of destruction and judgement.[58]

The *dindshenchas* poem for Cleitech (Rossnaree) describes it as 'the top of all houses in Erin'. Although the poem does not associate this site with the Boyne,

---

53. T. Ó Cathasaigh, 'The Eponym of Cnogba' in *Eigse*, v (1989-90), pp 27-38.

54. Gwynn, *Metrical Dindshenchas*, , pp 42-7, line 34.

55. *Ibid.*, pp 40-1.

56 *Ibid.*, pp 272-3.

57. *Ibid.*, p. 42; M. O'Kelly and C. O'Kelly 'The tumulus of Dowth, county Meath' in *R.I.A.Proc.*, C, lxxxiii (1983), pp 136-90, see pp 143-7.

58 Gwynn, *Metrical Dindshenchas*, , pp 42-7.

other sources allow Cleitech to be more precisely located. The poem recounts events recorded in the annals which, in turn, place the site on the river:[59]

> After Muircheartach (Mac Erca), son of Muireadhach, son of Eoghan, had been twenty-four years in the sovereignty of Ireland, he was burned in the house of Cleitech, over the Boyne, on the night of Samhain, after being drowned in wine (AFM 527).

A late fourteenth/early fifteenth century reference indicates that Cleitech lay near the *Síd in Broga* (Newgrange) and opposite Knowth. The Courting of Emer from the Cu Chuchulain cycle places Cleitech south of the river near Newgrange. Lastly, in a passage on the death of Muireadhach, Cleitech is near a glen close to Rossnaree. The topographical details point to the present site of Rossnaree House as the location of Cleitech; the plateau overlooking Newgrange on which Rossnaree House now stands fulfils all these locational requirements.[60]

Pre-Patrician annals A small number of pre-Patrician entries in the Annals appear to be based on early sagas and myths. A description of the Boyne is contained in a pre-Christian entry from the Annals of the Four Masters.

> In the reign of Conaire, the sea annually cast its produce ashore at Inbhear-Colptha (the Boyne estuary). Great abundance of nuts were annually found upon the Boinn... during this time... and the cattle were without keepers.[61]

The Annals of Ulster (AU 4209) record the death of Cormac, grandson of Conn Cethathach in Cletech Brega, after a salmon bone stuck in his throat. His death is blamed on his turning against the druids and worshipping Christ despite them. In the Annals of the Four Masters, this event is recorded for the year 266AD. The annals describe the final attempt to bury Cormac at the Brugh, a tradition that is also enshrined in the local placename of Rossnaree (*Ros na Rí* = the wood of the king). According to this entry, Cormac told his people not to bury him at *Brugh* but his servants were determined to bring him to the place where the kings of Tara had always been buried. The Boyne river swelled up three times, preventing the bier from crossing. It was then carried down to the area called Rossnaree today. This again suggests that the river was tidal up to Rossnaree in the proto/early historic period. A strong local tradition identifies Cormac's grave with a little mound on a river terrace northeast of Rossnaree House, but this mound proved to be Early Christian in date (see below). The Annals of the Four Masters also contain the first 'historical' reference linking Newgrange with the Celtic god Dagda.[62]

---

59 *Ibid.*, p. 200.

60. E. Hickey, 'The house of Cleitech' in *Riocht na Midhe*, iii (1965), pp 181-5.

61. AFM 5160 – years after creation.

62. AFM 3371, AFM 3450.

Sagas *Cath Ruis na Rig for Boinn,* the battle of the Boyne, was the second of those battles of the seven years war which are said to have been fought before the end of the first century AD.[63] The battlefield is called Rossnaree on the Boyne. Seven different versions of the battle are identified, the earliest contained in the twelfth-century Book of Leinster. The saga is considered pre-Christian in tone and texture.[64] It outlines the triumph of Conchobor Mac Nessa and his Ulster warriors over the provinces of the south and west of Ireland. This conflict followed the battle of Táin Bó Cualigne which resulted in Ulster's loss of the famous Cooley bull to Meadbh, queen of Connacht. After his humiliating defeat, Conchobor mac Nessa vowed immediate vengeance and sought the assistance of foreign powers and Irish warriors who were warring away from Ireland. Conchobar chose *'cor Ross na Rig as Boind ban-solus'* ('above the clear bright Boyne) as the most strategic place to do battle. In one noteworthy incident, Conchobor asks Feic to estimate the army from a *'duin na Boinne ban-soilsi'* ('fortress of the clear bright Boyne'). This may be a reference to Cleitech. Feic crossed the Boyne river at the ford of Rossnaree, was chased by the army and fell into a pool where he was drowned. This spot is subsequently identified as Feic's Pool.[65] This is the *lind Feic* which is also mentioned in *dindshenchas*. While the topographical detail contained in this saga is limited, Rossnaree was obviously considered a strategic position on the Boyne from which an Ulster army could best attack the southern provinces.

In another saga, *Fled Dún na nGed,* Domnall, son of Aed, gave a feast to celebrate his assumption to the kingship (in 627AD) and the completion of his fortress at *Dún na nGed* on the Boyne. According to the tale, Domnall's men carried off some goose eggs from the hermitage of Erc Slaine, possibly indicating that the fortress was near Slane village.[66] There are many ringforts in the area, one of which is the likely site of *Dún na nGed.*

4C Early Christian land use

4Ci – Ecclesiastical sites Controversy and uncertainty surrounds the accounts of St Patrick's early mission into this part of Ireland. A large body of vernacular prose and poems highlights ideological conflict in the transitional period from paganism to Christianity. When the story of Patrick came to be written, the Boyne

63. Hogan, *Cath Ruis na Rig for Boinn,* p. xiii.

64. *Ibid.,* p. xiii.

65. *Ibid.,* p. 35.

66. J. O'Donovan, 'Fled Duin na nGed' (Dublin, 1842); C. Marstrander, 'A new version of the Battle of Mag Rath' in Ériu, v (1911), pp 226-9. O'Donovan believed this refered to the embanked enclosure at Dowth. However, I have shown (chapter 3) that this is a prehistoric ceremonial enclosure; see W. Wilde, *The beauties of the Boyne and Blackwater* (Dublin, 1849), p. 211.

Valley was chosen as the location for its symbolic if not actual beginning. According to the Annals of Ulster, Patrick arrived in 432:

> Patrick arrived in Ireland in the ninth year of the reign of Theodosius the Less and in the first year of the episcopate of Xistus, 42nd bishop of the Roman church. So Bede, Marcellinus and Isodore compute in their chronicles.

For the earliest descriptions of his arrival in Ireland, we are largely dependent on two texts from the second half of the seventh century, Muirchú's *Life of Patrick*, a saga text dealing with Patrick's initial activity in Ireland, and Tirechan's *Collectanea*, a collection of traditions and origin legends about churches which claimed to have been founded by Patrick.[67] According to Muirchú, Patrick and his followers landed at *Inbher Colpi*, at the mouth of the Boyne (now the Colpe near Mornington) where:

> They left their boat and went by foot to that great plain. In the evening they at last arrived at *Ferta fer Feic*, the burial place of the men of Fiacc... There they pitched their tents, and then Patrick with his companions duly offered Easter to God.[68]

The location of *Fertae fer Feic* has usually been associated with the hill of Slane three kilometres west of the Bend of the Boyne. This identification first appears in the work of John Colgan in the seventeenth century which he based on an annalistic reference in AFM 512, which records the death of Erc of Slane, bishop of Lilcach and Ferta fer Feic.[69] However, this identification has been subsequently questioned.[70] Slane was never mentioned in the accounts of the early lives and there is no archaeological or historical evidence that Slane was then an important site.[71] The absence of evidence for the link with Slane draws attention to a fifteenth-century reference which places *Fertae fer Feic* south of the Boyne and west of a hill known as (the as yet unidentified) *Síd Truim*.[72]

Since *Ferta fer Fiacc* is most likely near Rossnaree in the Bend of the Boyne, it is possible that the Pascal fire could have been lit in the Bend of the Boyne.[73] There is an intriguing reference linking Patrick with Newgrange. *Fert-Patric* in the *dindshenchas* of *Brug* (Newgrange) contained in the *Book of Ballymote* states: 'The grave of Esclam, the Dagda's brehon, which is called now *Fert-Patric'*.[74] The environs of Knowth and Newgrange were well established in the early

---

67. L. Bieler, *The Patrician texts in the book of Armagh* (Dublin, 1979).

68. *Ibid.*, p. 85.

69. Swift, 'Pagan monuments', p. 11.

70. Eogan, 'Brugh na Boinne', pp 9-13.

71. Eogan, 'Brugh na Boinne', p. 119.

72. Less tenable is her suggestion that the site could be near Trim. Trim is more than a day's walk west of the Colpe. Swift also incorrectly locates *Lind Feic* near Navan rather than Rossnaree (see chapter 4Bv) undermining her claims for this far western location; see Swift, 'Pagan monuments', pp 9-13.

73. But not necessarily Knowth as was rather parochially suggested in Eogan, 'Brugh na Boinne', p. 119.

74 Petrie, *Ecclesiastical architecture*, p. 103.



Fig. 4.8 Beranger's (1775) depiction of the Bishop's or Erc's tomb in the graveyard of Slane Hill. Patrick is said to have ordained Erc first Bishop of Slane.

centuries AD which could make them a likely attraction for Patrick's mission, but could just as easily have kept him away from this pre-Christian centre of population. A factor against the association of these events with Slane is the surprising failure of the *dinnshenchas* for *Slaine* to mention its association with Patrick or Fertae fer Fiacc.[75] Slane is the more prominent hill from which a fire could be seen from Tara; however, on the basis of the written evidence, the Bend of the Boyne cannot be ruled out as the location of Patrick's first Easter in Ireland.

Whether or not Slane Hill is the site of the enigmatic *Ferta fer Feic,* Slane indisputably developed very early as a major monastic centre. Because the study area forms part of the original parish of Slane and because Slane became the most important ecclesiastical site in the area during the Early Christian period, it is appropriate to discuss the archaeology and history of this site and then examine the evidence for Early Christian ecclesiastical sites in the study area proper. The oldest feature on Slane Hill today is the house-shaped shrine in the graveyard associated with St Erc (d. 512 or 514) whom Patrick made Bishop of Slane (fig. 4.8).[76] This shrine is comprised of two large, opposing, triangular shaped standing stones. In Ireland and Britain, house-shaped shrines made of stone, wood or metal were common in the Early Christian period. In the seventh century, Bede described the shrine of St. Chad in St Peter's Cathedral, Lichfield as a wooden coffin in the shape of a 'little house'.[77] The record of Erc's death is an indication of the prominence of Slane. Patrick had reputedly made Erc the first bishop of Slane and his conversion is described in both Muirchú's and Tirechan's *Lives.* Subsequently, the foundation at Slane blossomed and was adopted as the main religious centre for the local dynasty, the Síl nAedo Sláine (the Seed of Aed of Slane) with whom it was closely associated from the seventh-century. There are frequent entries to the monastery at *Slaine* in both the Annals of Ulster and the Annals of the Four Masters. The taking on tour of the relics of St. Erc of Slaine was recorded in AU 775 as is their arrival at the city of Tailtiú in AU 784. The annals record the death of bishops, stewards and lectors from the monastery at Slane, and from the ninth to the eleventh-centuries, they highlight a series of attacks on the monastery.[78] In one attack, Slane's bell house, high cross and wooden church were seriously damaged.

---

75. Gwynn, *Metrical Dindshenchas,* , p. 447.

76. 'Repose of Erc, Bishop of Slane'.

77. One of these shrines was recently excavated on Illaunloughan, county Kerry. It covered two small stone-lined, stone-covered cists, which contained human long bones exhumed from a burial; see J. White-Marshall and C. Walsh, 'Illaunloughan: life and death on a small early monastic site' in *Arch. Ir.,* viii (1994), pp 24-8.

78. AFM 784 Feadach, son of Cormac... of Slaine died; AU 814 AD Son of Maenach, steward of Slane, and Gormgal, son of Niall son of Fergal, who died. Its international contacts are highlighted in AU 824, Colman, son of Ailill, abbot of Slaine and of other monasteries in France and Ireland, died'; AFM 847 Onchu, bishop and anchorite of Slaine... Robhartach, son of Colgan, Abbot of Slane... died; AFM 854 Sodhomna, Bishop of Slane, received martyrdom from the Norsemen; AU 869 The death of Niallan, bishop of Slane; AU 938 Fedach, superior of Slane, died; AU 948 Colman, son of Mael Patraic, superior of Slane was taken prisoner by the foreigners and died on their hands; AU 950 The bell house of Slaine was burned by the foreigners of

> During the plundering of foreigners, the cross which was on the green at Slane was broken up in the air: it was broken and divided, so that part of its top reached Tailteann and Finn abhair-Abha [Fennor].[79]

This entry has been corroborated by recent discoveries. A cross fragment embedded in the wall of St Patrick's church on the hill of Slane and a cross head found at Fennor are possibly from the same cross.[80] Westropp (1901) states that 'fragments (of a cross) with interlacings, are set in another house in the village' of Slane.[81] The location of this fragment is not known.

Slane was undoubtedly the main ecclesiastical centre in the area, but there were smaller ecclesiastical sites in the Bend of the Boyne; at Dowth, possibly at Staleen, Rossnaree and Monknewtown. There is evidence for cemeteries of Early Christian date at Staleen and Knowth (fig. 4.9). These provide some indication of the rapid spread of religious communities in the valley. The intriguing reference to the slaying of Oengus, airchennach (monastic manager) of Slane by the airchennach of Dubad (Dowth) (AU 1012) indicates that there was a pre-Norman church at Dowth. The *Annals of the Four Masters* also list this church at Dowth amongst those burnt by Diarmait Mac Murchada in 1170. Further documentary evidence for an early foundation at Dowth is found in a twelfth-century missal. Known as the Dowth Missal, this book belonged to the Proudfoots of nearby Proudfootstown. It is also known as St Shenghans Book.[82] St Shengan is associated with a 'sheela na gig' (exhibitionist figure) on the exterior of the south wall of the present medieval church at Dowth. The holy well at Dowth was called Tobar Seannachain. St Shengan may be 'St Senchan', thought to have been the ecclesiastic responsible for recording the Táin Bó Cúailnge saga in the middle of the twelfth century.[83] The present medieval church at Dowth presumably replaced the Early Christian foundation. A number of re-used architectural fragments have been identified in the make-up of the church, indicating a possible Hiberno-Romanesque pilaster in the gatepost of the graveyard, and a worn arch stone used as a step.[84] A holy well near the medieval church at Dowth

---

Ath Cliath. The founder's episcopal staff, and the best of all bells, the lector of Caenchair, and a large number with him, were all burned; AU 956 Mael Patraic, son of Cu Bretan, superior of Slaine, died; AU 1028 the wooden church of Slane fell down; AFM 1170 Slane was burned.

79. AFM 847

80. P. Harbison, 'A shaft-fragment from Slane, county Meath, and other recent high cross discoveries' in C. Manning (ed.), *Dublin and beyond the Pale* (Dublin, 1998), pp 173-6.

81. T. Westropp, 'Slane in Bregia, county Meath: its friary and hermitage' in *Journal of the Royal Society of Antiquaries of Ireland*, xxxiii (1901), pp 405-30.

82. W. O'Sullivan, 'Medieval Meath manuscripts' in *Riocht na Midhe*, vii (1985-6), pp 3-21, see p. 17; T.C.D. Ms. 786, f. 23V.

83. C. Plummer, *Vitae Sanctorum Hiberniae* (Oxford, 1910), p. cxxxvi.

84. Irish Tourist Association records in Dúchas.

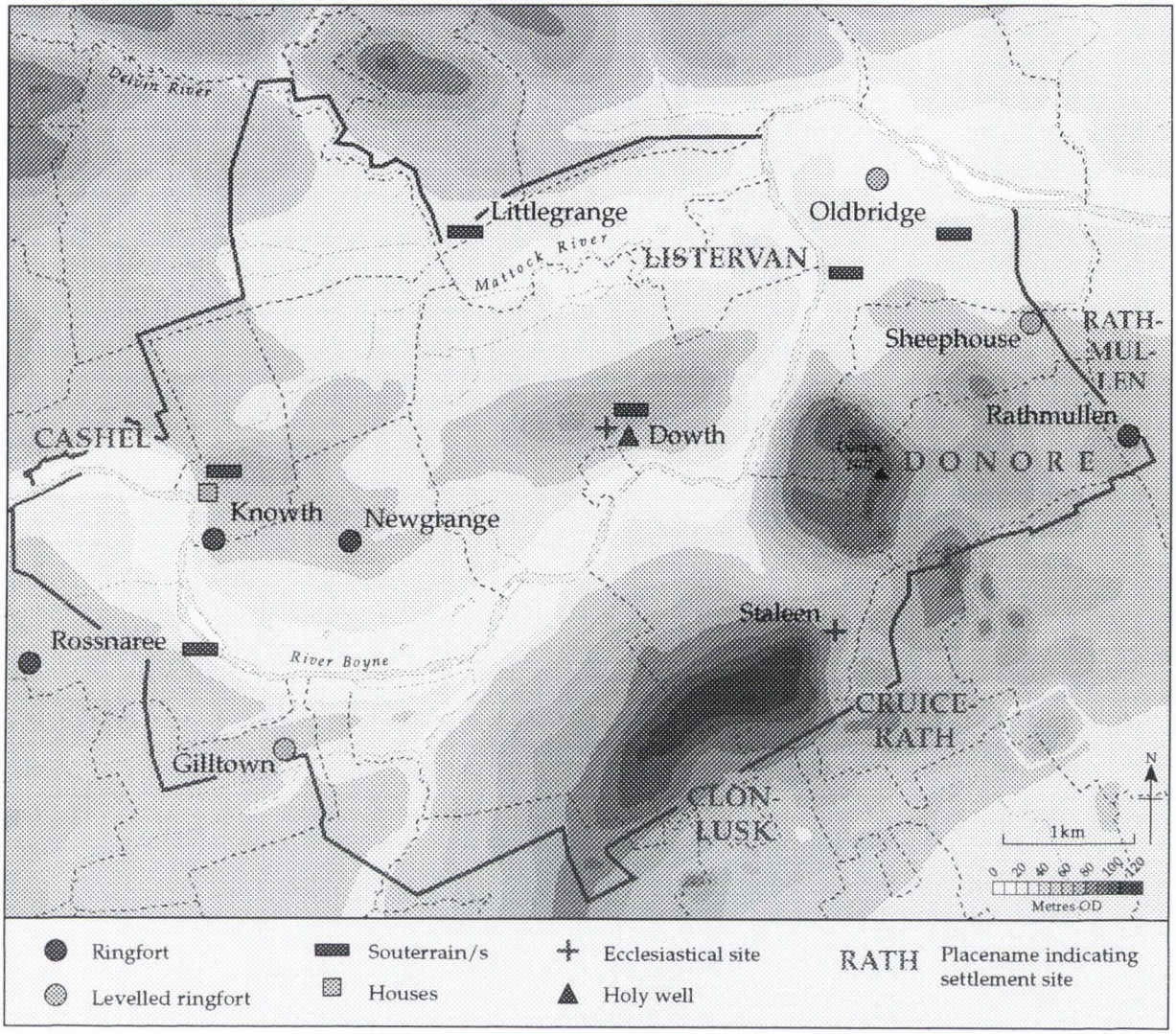


Fig. 4.9 Early Christian sites in the Bend of the Boyne.

is known today as St Bernard's well. It was probably another element of this early foundation.[85]

The Ordnance Survey Letters for county Meath contain information relating to antiquities observed during the progress of the survey in 1836. The OS letters record:

> A holy well called Tober san Mana which the people speaking English call St Anne's well. There was a pattern day in the 5th. of July which is St. Maine day.[86]

This holy well in the townland of Staleen might indicate the former existence of an early ecclesiastical site. Two slab-lined burials were discovered on the summit of a ridge, south of the river Boyne in this same townland in the mid 1930s during work for a new reservoir for Drogheda Corporation. One of these burials lay on a paved floor. They were both extended and orientated east/west in the form consistent with Early Christian practice.[87]

The OS letters recount the tradition that St Columkille erected a church at Ros na Righ and prayed there for the soul of his great ancestor who opposed the religion of pagans. This tradition is perhaps based on Céitinn's account of the burial of Cormac Mac Art at Rossnaree.[88] This site has not been precisely located. However in the early 1940s the construction of a pillbox on a terrace above the Boyne at Rossnaree disturbed a burial of sixth-century date. The burial mound was known locally as Cormac's grave.[89] The remains of a woman and child buried in a crouched position were exposed. A silver inlaid ring accompanying the remains has been dated to the sixth-century.[90] The mode of burial with its accompanying jewellery and covering does not conform to Christian ritual. It may be a Viking burial. This burial is analogous to the inhumation discovered around the main mound at Knowth in cists, aligned east/west but without grave goods.[91]

Lastly, a holy well at Monknewtown is called *Tobar Sratha Baine* near the site of the medieval church. This is thought to be associated with the Early Christian saint Baran or Barrind. The pattern day for this well was the first Sunday in August, establishing it as a Lughnasa site which suggests pre-Christian devotion

---

85. Wilde, *Boyne and Blackwater*, p. 210.;This stone-lined well is accessed through a metal grate.

86. Ordnance Survey Letters, county Meath (unpublished typescript, Royal Irish Academy, Dublin, 1836), p. 137. This reference indicates bilingualism in the Bend of the Boyne at this date.

87. J. Raftery, 'Long stone cists of the Early Iron Age' in *R.I.A.Proc.*, C, xlvi (1941), pp 299-315, see p. 303.

88. Letters, Meath, pp 93, 183.

89. Anon, 'Early silver ear ring found at Rossnaree' in *county Louth Archaeological and Historical Society Journal*, x (1942), p. 157.

90. Pers. comm. Raghnaill Ó Floinn, National Museum of Ireland.

91. Eogan, 'Brugh na Boinne', p. 24.

at the well. St Barrind has two feast days, 21 May and 8 November, neither of which are observed today.[92]

4Cii – Geo-political background In the Early Christian period, the lower Boyne valley formed part of the petty kingdom or *tuath* of Brega, a territory which comprised the present county of Meath and north county Dublin (fig. 4.10). This was one of a number of petty kingdoms within the territory of the southern Uí Néill.[93] Irish society had, by this time, become tribal and hierarchical with a series of tribal federations each ruled by a dominant dynasty. The territory of the southern Uí Néill was ruled by at least eight different dynasties claiming descent from Niall of the nine hostages, but the Síl nAed Sláine and the Clann Cholmain became the most dominant and great rivals.[94] The kingdom of Brega came to be ruled by the Aed Slaine dynasty who rose to prominence in the late sixth and early seventh centuries as high kings of Ireland. In 688AD the kingdom was further split into two kingdoms, northern Brega and southern Brega: on several occasions, the kings of northern Brega are styled kings of Cnogba (Knowth). They had their royal centre at or near the passage tomb at Knowth and specifically gave themselves the title 'Rí Cnogba'.[95] The first annalistic reference to a king of Knowth is in AU 789: 'Gormgal, son of Eladach, rex Cnodhbai [king of Knowth] died'. Gormgal was of the Gailenga tribe who were widely spread through Meath and north county Dublin. They represented the main substratum of population of the Síl nAed Sláine under the Uí Néill dynasts of Brega. Up to 818AD, when the death of Cernach mac Congalaig, 'rex Cnodbai' is recorded, Cnogba was in the hands of the Gailenga. In the ninth century the Síl nAed Sláine made alliances with the Norse against the Clann Cholmain. Maelmithig mac Flannacain became high king in 918AD, as did his son, Congalaach Cnogba, in the mid-tenth century.[96] The period of their reign coincides with a major re-settlement phase at the main mound at Knowth.

4Ciii - Ringforts During this period, the settlement pattern was strictly rural and was dominated by the dispersed protected farmsteads known as ringforts, associated with a dairy farming economy.[97] Until at least the ninth century, the bulk of the population lived in ringforts, many of which are still traceable in the

92. W. Stokes (ed. and trans.), *Martyrology of Oengus, the Culdee* (London, 1905).

93. F. Byrne, *Irish kings and high kings* (London, 1987), p. 87.

94. *Ibid.*, p. 395.

95. F. Byrne, 'Historical note on Cnogba (Knowth)' in G. Eogan, 'Excavations at Knowth, county Meath, 1962-5' in *R.I.A. Proc.*, lxvi (1967), C, pp 383-400, see p. 383.

96. *Ibid.*

97. M. Stout, *The Irish ringfort* (Dublin, 1997).

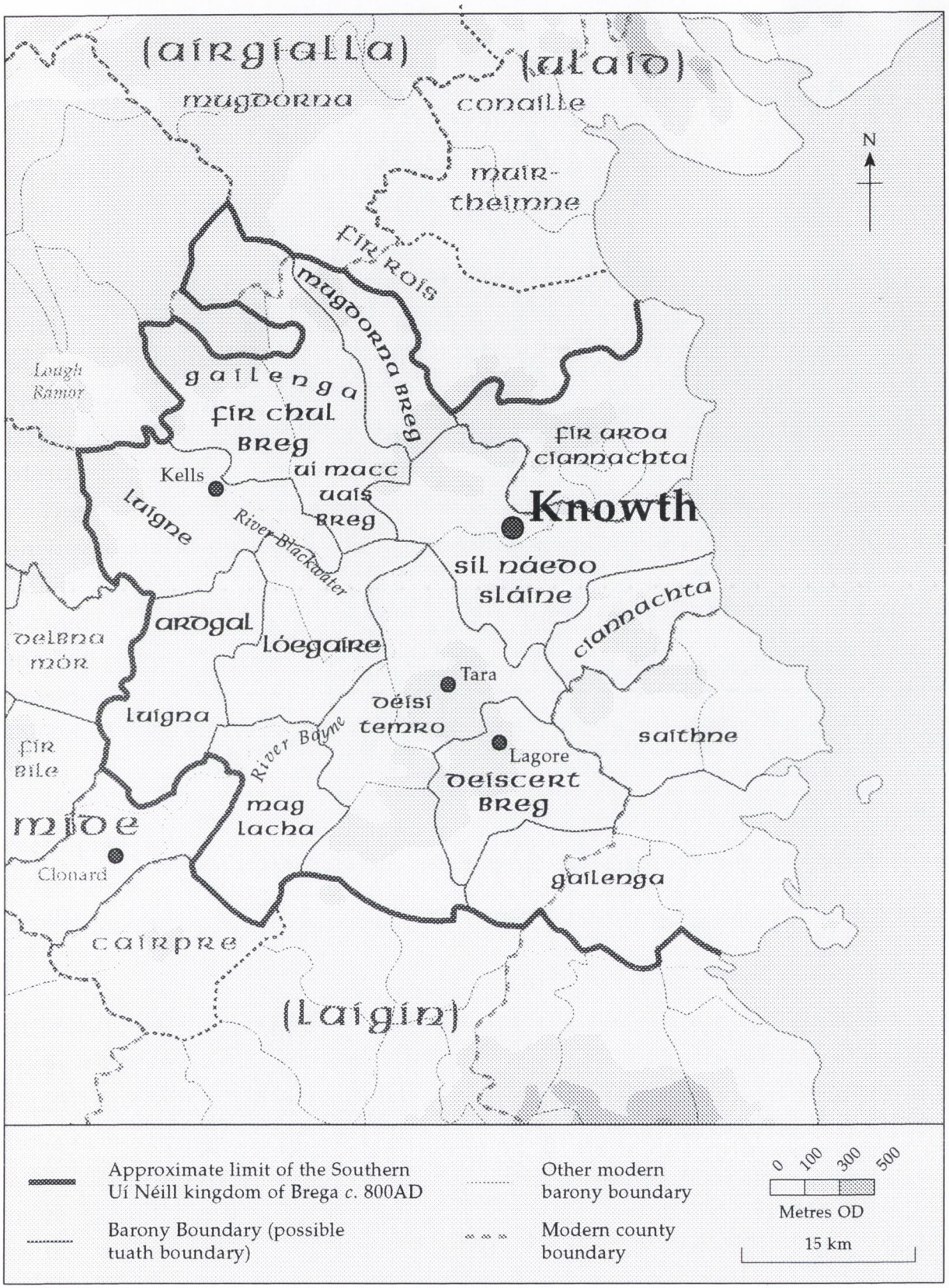


Fig. 4.10 The Uí Néill kingdom of Brega *c.*800AD with its vassal 'tribes' and tributary 'tribes' (after Byrne, 1987 with additions by the author).

fields north and south of the Boyne. Townland names such as Cashel and Donore probably testify to the presence of further examples, now destroyed, as does the placename 'Listiveran' recorded in an eighteenth-century deed.[98] Within the study area, there are three upstanding ringforts at Knowth, Newgrange and Rathmullen, and four levelled examples appear as cropmarks in Gilltown, Oldbridge and Sheephouse (fig. 4.9). None have been excavated. In general, ringforts in this area are on the summit of ridges, univallate, with artificially raised interiors. The latter feature is probably an adaptation to a low-lying landscape.[99] All ringforts here are of earthen construction, with entrances in the east. They vary in size from the largest at Knowth (63m in diameter), Newgrange (53m) and Rathmullen (40m) (fig. 4.11AB). Their dimensions are larger than the average for ringforts in Ireland, but low-lying areas like county Meath tend to have fewer but larger examples.[100]

The ringforts at Knowth and Newgrange are the most impressive of these enclosed farmsteads and their relatively large dimensions suggest that the occupants had a high status within early Irish society. The ringfort at Knowth is located in a field below the passage tomb cemetery, at the edge of a ravine above the Boyne. It comprises a circular earthen fortification with a deep enclosing ditch outside and imposing inner earthen bank. It holds a commanding position over the countryside to the north-west and to the south and must have helped defend the river crossing into the ancient territory of Bréga. The ringfort in the townland of Newgrange lies on the summit of a low ridge under pasture to the north of the main passage tomb. The ringfort at Rathmullen lies on the brow of a low broad ridge. In the tilled fields south of the Boyne, these ringforts have been mostly levelled and appear as cropmarks in aerial photographs taken at very dry times of the year.

4Civ – Unenclosed settlement

Early Christian settlement at Knowth The excavations of the main passage tomb at Knowth has provided extensive evidence for nucleated, unenclosed housing towards the end of the Early Christian period. The wide range of both artifactual and structural evidence recovered from this excavation facilitates a more holistic insight into one high status early historic community in the Bend of the Boyne, albeit a very unusual one. This complex has been dated to the eighth century AD onwards, but the finds, including bone combs, pins, coins and querns, indicate a late-ninth to twelfth century date range. This coincides with its

98. Lord Netterville to Kelly 1750, R.D., 142, p. 297, 95575.

99. G. Stout, *Archaeological survey of the barony of Ikerrin* (Roscrea, 1984), pp 16-17.

100. M. Moore (ed.), *Archaeological inventory of county Meath* (Dublin, 1987), pp 56-93.

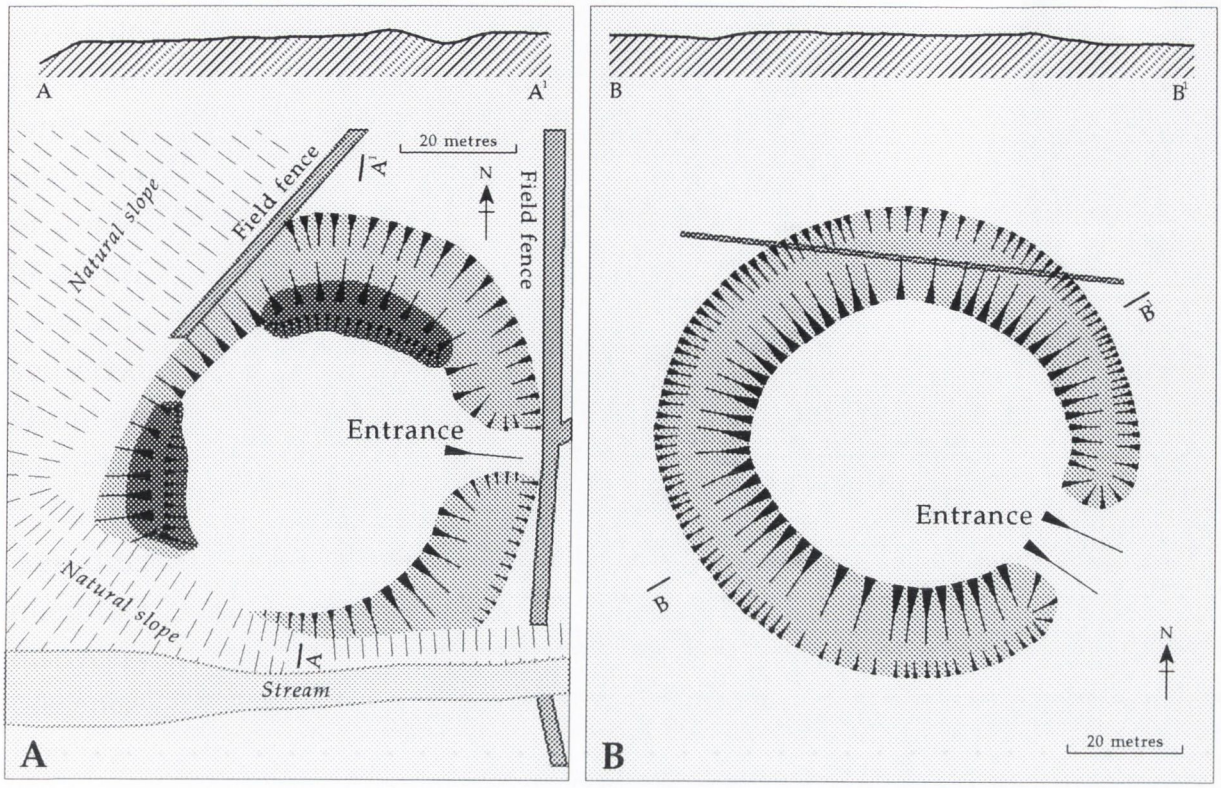


Fig. 4.11A Plan and section of Knowth ringfort. Fig. 4.11B Plan and section of Newgrange ringfort.

probable use as a royal residence (see above).[101] Thirteen timber houses, rectangular in plan with paved floors, and nine souterrains (underground stone-built passages) were constructed on and in the immediate environs of the prehistoric mound (fig. 4.12). A souterrain is a structure constructed with drystone walling and capped with large stone lintels. These structures can consist of a variety of passages, chambers and constrictions. Both the entrances of the eastern and western tombs were re-modelled and incorporated into a labyrinth of souterrains; their builders were literate and inscribed Irish lettering on the chamber stones of the eastern passage.[102] The unequalled density of these souterrains underlines the status and value of Knowth.

On the west side of the mound, houses were built on top of the filled-in Iron Age ditch. A range of industrial activities took place on the site, including the manufacture of combs, pins and fibulae from antler, ox and pig bone.[103] The discovery of part of a tuyere (or furnace) indicates that bronze was cast here. The presence of iron slag and furnace casts shows that iron was smelted as well.[104] Iron was used to make ringed pins, stick pins, pins and needles for sewing horse-shoe nails and bridle bits. The presence of a rough-out for a grindstone and a re-shaped quern shows that a stone-cutter was present within this Early Christian community.[105]

Faunal remains of cattle, sheep and pigs were found but animal bones on these rural sites cannot be automatically assumed to represent produce of that farm as agricultural produce was exchanged between nobles and commoners in order to maintain clientship.[106] Wheat and oats, ground on rotary querns, also featured in the Knowth diet. The presence of oyster, scallop and whelp shells shows that the local inhabitants also availed of the resources of the nearby coastline.[107] This concentration of underground artificial passages and houses in a prehistoric mound is unparalleled in Ireland with the possible exception of Dowth and a site at Cabragh near Tara.[108] Certain similarities also exist between Knowth and the dense concentration of souterrains at Marshes Upper, near Dundalk, county

---

101. Eogan, 'Brugh na Boinne', p. 120.

102. *Ibid.*

103. Eogan, 'Excavations of some passage graves', pp 102-3.

104. *Ibid.*, pp 88, 103, 110.

105. *Ibid.*, p. 110.

106. F. McCormick, 'Exchange of livestock in Early Christian Ireland, AD 450-1150' in *Anthropozoological Journal*, xvi (1992), pp 31-6, p. 31.

107. G. Eogan, 'Excavations of some passage graves, unprotected inhumation burials and a settlement site at Knowth, county Meath' in *R.I.A.Proc.*, C, lxxiv (1974), pp 2-112, see p. 88.

108. E. Hickey and E. Rynne, 'Two souterrains on the lower slopes of Tara' in *Journal of the Kildare Archaeological Society*, xiii (1953), pp 220-1. I am grateful to Dr Mark Clinton for this reference and information regarding souterrains in Ireland.

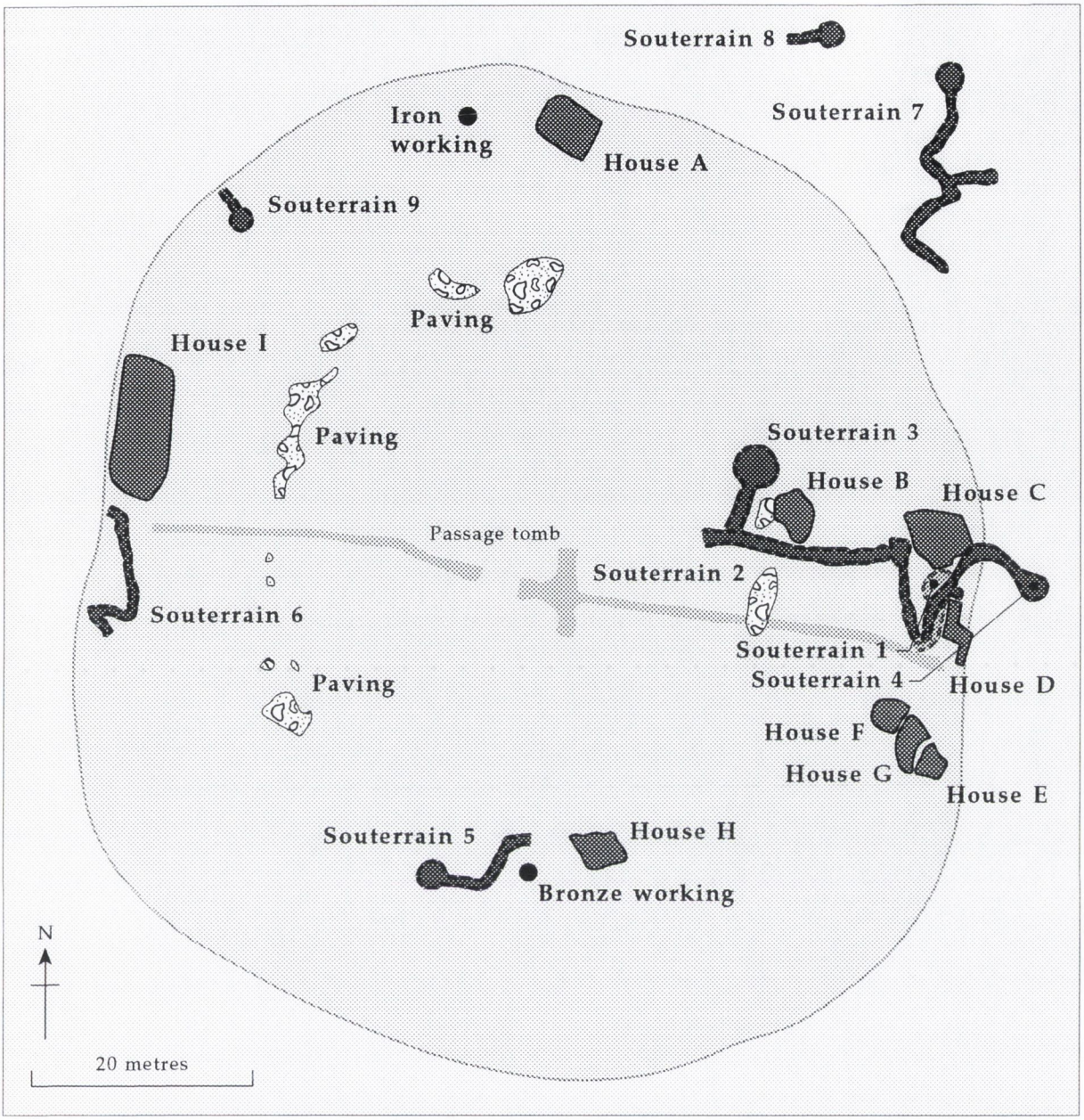


Fig. 4.12 Ground plan of Early Christian settlement at Knowth (after Eogan, 1977, souterrain numbering after Clinton, 1999).

Louth where excavations produced a similar range of domestic and personal objects, faunal remains and querns.[109] That said, it is just as likely that Knowth is unique; it lay in a cultural zone where souterrains were preferred to ringforts, as well as being a wealthy and significant royal site.

Souterrains A similar arrangement of souterrains on a passage tomb is evident at Dowth. A souterrain opening into the earlier passage tomb at Dowth North was discovered by the Board of Works inspector in the early 1880s. Isolated souterrains are relatively numerous elsewhere in the Bend of the Boyne. There are two at Oldbridge and one at Rossnaree on the south side of the river, and the most recent discovery is at Sheepgrange on the north side of the river. There is an intriguing description by Reid of a discovery by workmen in Rossnaree House *c.*1800 of

> A souterrain building, consisting of several apartments constructed of stone without cement which had since been closed up.[110]

The remaining souterrains have been exposed by ploughing and reclamation of farmland. Two men working on the Coddington estate (at Oldbridge) in the late 1983 were ploughing when they came across flagstones. When this was raised, a passage leading to a circular chamber was exposed. Charcoal and ash were observed on the floor of the circular chamber. A further inspection of the site revealed a complex Z-shaped souterrain formed by a passage with two corbelled chambers off it.[111] Another site at Oldbridge was discovered in 1983 during land reclamation work; a bulldozer uncovered several tunnels. This proved to be an impressive drystone built passage 6.5m long with two beehive chambers running off it.[112] In 1991 a local farmer uncovered another souterrain on his farm at Littlegrange, also during land reclamation works. This was a well built structure with passage and corbelled chamber.[113] The townland name 'Clonlusk' also suggests the presence of a souterrain in that townland.[114]

The souterrains found in the Boyne valley are those with beehive chambers, a type of chamber that occur in a tight cluster which approximately corresponds to the kingdom of Brega. The Bend of the Boyne also lies in the midst of a marked concentration of souterrains (with a variety of chambers) in Meath, Westmeath,

---

109. M. Gowen, 'Excavation of two souterrain complexes at Marshes Upper, Dundalk, county Louth in *R.I.A.Proc.*, C, xcii (1992), pp 55-120.

110. T. Reid, *Travel in Ireland in the year 1822* (London, 1823), pp 7-8; Meath SMR 19:48.

111. Moore (ed.), *Archaeological inventory Meath*, p. 53; Meath SMR 20:7.

112. *Ibid.*, p. 53; Meath SMR 20:4.

113. *Irish Times*, 3 August 1991, p. 1.

114. *Lusca* = Underground chamber, crypt, vault; see T De Bhaldraithe (ed.), *Foclóir Gaeilge-Béarla* (Dublin, 1977), p. 812

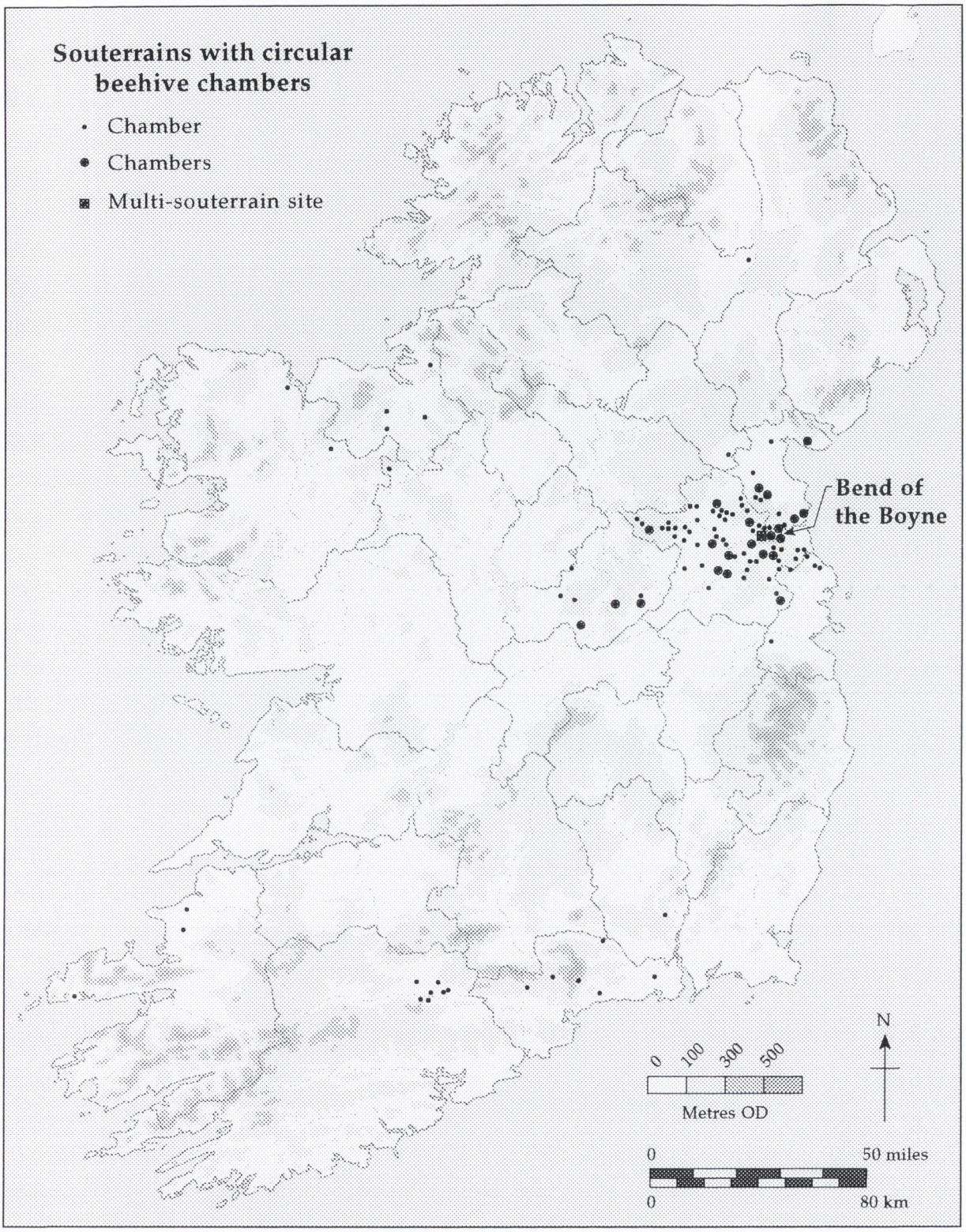


Fig. 4.13 The distribution of souterrains with beehive chambers (after Clinton, 1999).

south Louth and north Dublin. The northern demarcation of the group is delimited by the rivers Dee and Inny while the Liffey and the northern borders of the ancient kingdom of Leinster mark its southern parameters (fig. 4.13).[115]

References to souterrains in the annals clearly show that these sites were refuges. The complex nature of many of these structures highlights their largely defensive nature.[116] They have been described as a 'defensive adjunct to settlements'.[117] Unenclosed settlements in this region far outnumber ringforts. This may reflect a change to more intensive arable farming in the later phases of the Early Christian period with souterrains providing a modicum of protection for labourers in those farming communities who did not need a ringfort to secure safety for their herds during periods of cattle raiding. Many of the trap features in souterrains are designed to be sealed from the outside. From this it may be inferred that they were designed to prevent slaves being easily captured.[118]

4Cv - Norse encampment This prosperous agricultural community in the Boyne valley attracted the attention of raiding parties of Saxons and Norsemen. These repeated incursions were obviously profitable. Churches were the main focus of attack. Raids into the territory of Brega are first recorded in the Annals of Ulster 685AD when Saxons laid waste Mag Breg and many churches. This summer raid by Ecgfrith of Northumbria is the only known clash between the Anglo-Saxons and the Irish.[119] An attack from closer to home is in the Annals of Ulster (720AD), which records the wasting of Mag Breg by Cathal (son of Finnguine) and Murchad (son of Bran). Between 837AD and 1032AD, there were several major Norse incursions into the Boyne.

The Norsemen may have been encouraged to enter the Boyne valley to support hostilities between the rival dynasties of Clann Cholmáin of Ulster and the Síl nAed Sláine of Bréga.[120] The scale of these incursions is highlighted in the Annals which record a naval force of sixty Norse ships on the Bóinn and another sixty ships on the Liffey in 837AD. These two forces plundered the plain of Bréga, including 'churches, forts and dwellings'. This short entry clearly describes the main forms of settlement in the region; the reference to 'dwellings' is possibly a

115. M. Clinton, 'Two recently discovered souterrains in county Meath' in *Riocht na Midhe*, ix (1996), pp 30-3.

116. A. Lucas, 'Souterrains: the literary evidence' in *Bealoideas*, xxxix-xliv (1971-73), pp 39-41.

117. V. Buckley, 'Meath souterrains: some thoughts on Early Christian distribution patterns' in *Riocht na Midhe*, viii (1988-9), pp 64-7, see p. 65.

118. M. Clinton, Structural aspects of souterrain in Ireland (unpublished PhD thesis, Galway NUI, 1998), pp 246-8.

119. Byrne, 'Historical note on Cnogba', p. 398.

120. *Ibid.*, p. 389.

reference to unenclosed settlement associated with souterrains. A Norse naval force was on the Boyne at *Linn Rois* (Rossnaree) according to AFM 842. That entry also notes the plundering of Birr and Saighir by the foreigners of the Bóinn: the Norse were actually using the Boyne as a base from which to attack monasteries in the Midlands.

The annals record the pillaging of the caves (souterrains) at Knowth, Dowth and Oldbridge in 861AD:

> The cave of Cnoghbhai [Knowth], the cave of the grave of Bodan... over Dubhath [Dowth], and the cave of the wife of Gobhann, at Drochat-atha [Oldbridge], were broken and plundered by the same foreigners [Norsemen].

In AU 863

> The caves of... Cnodba, and of Boadan's Mound above Dubad and of Oengoba's wife, were searched by foreigners – something which had never been done before.

In AU 935 the cave of Cnogba was sacked by Amhlaib [Olaf, king of Dublin]. The kings of Knowth allied themselves with the Norse kingdom of Dublin. This may account for the presence of five Anglo-Saxon pennies from Knowth which can be attributed to contact with Viking Dublin.[121]

4D Conservation and presentation

4Di – The pre-Christian component The obvious need is for a specific pollen diagram covering the later prehistoric and Early Historic periods in the Bend of the Boyne. This would provide an objective means by which to gauge the impact of the human presence on the environment. The bog in Crewbane townland and the lake at Ballybay in Dowth townland should be sampled. This is essential because the invisibility of settlement evidence for this period contrasts with the wealth of placename lore. The period has left little in the way of field evidence with the exception of the enclosing ditches at Knowth. Artifactual evidence suggests that there was tillage farming in the valley and commercial contacts between the Boyne Valley and communities in Britain at this time. As movement was largely waterborne, a programme of underwater archaeology in the lower Boyne valley should also be undertaken. This should be focused around the ford at Rossnaree which was a major crossing on the overland route known as the *Slighe Midluachra*. Such research could reveal artefacts as impressive as the Roman boat found in Westmeath.

The proto-historical sources provide considerable topographical detail but the difficulty lies in precisely locating the features described and to correlate these early descriptions with those sites on the ground. In many cases the writers of the *dindshenchas* were re-interpreting or providing an origin tale for features such as

121. Eogan, 'Brugh na Boinne', p. 121.

burial mounds that are probably much older. However, these sources mention monument types that have not yet been identified in the Bend of the Boyne, such as the fulachta fiadh or boat-shaped mounds. Every effort should be made to identify these sites through a combined programme of aerial photography and field walking. The *dindshenchas* also reveals that the term *brug*, as in Brú na Bóinne, refers to Newgrange and its immediate environs and does not equate with the much larger area within the Bend of the Boyne. Although this name has been widely accepted in the literature since the nineteenth century, it is an inappropriate use of the term and such inaccuracies should be corrected in all future interpretative material.

To date, the Iron Age ditch at Knowth has not been made accessible or even visible to the public. However, this phase of re-use of the site is illustrated in the outdoor exhibition panels and is discussed in the guided tour of the site. By contrast, the significance of Newgrange as a pilgrimage site during the Roman period is not referred to in the guided tours of that site, or in the literature available to the pubic. Neither is this period in the history of the Bend of the Boyne interpreted for the public at the new visitor centre.

4Dii - Early Christian component There were strong links between localities in the study area and the beginnings of Irish Christianity. The *Ferta fer feic* where St Patrick allegedly lit the Pascal fire was possibly located in the Bend of the Boyne near the ford at Rossnaree. Slane was undoubtedly the main ecclesiastical centre in the area during the Early Christian period, but there is evidence for a number of smaller ecclesiastical sites in the Bend of the Boyne. These sites testify to the rapid spread of religious communities in the valley.

Table 4.3
Early Christian ecclesiastical sites in the Bend of the Boyne

Location	Site type	SMR	Land use
Dowth	Church site	20:19	Pasture
Dowth	Holy well	—	Pasture
Knowth	Inhumations	19:30	Excavated
Rossnaree	Burial mound	19:59	Pasture
Rossnaree	Church site	Not precisely located	
Staleen	Holy well	—	Pasture
Staleen	Inhumations	27:01	Pasture

Dowth appears to have been an important ecclesiastical site. An archaeological survey of the present medieval building may well identify earlier architectural fragments in the make-up of the church. This survey should be undertaken prior to any efforts at restoration, a real possibility now that Dowth had come into state ownership. The church site at Dowth is listed in the Record of Monuments but the holy wells are not currently listed. They are all accessible to the public with

the exception of the one at Staleen where access has been prohibited by the landowners. The nature of early monasticism and the significant role of the area in the beginning of Irish Christianity should be included in the interpretative material in the visitor centre and relevant literature.

The rise to political prominence of this area has been outlined, and the importance of Knowth as a royal centre may account for the unique settlement form which developed at the site. The concentration of souterrains and houses in a prehistoric mound is unparalleled in Ireland. In this politically dominant area, the rural economy underwent an economic change from dairying to arable farming during the Early Christian period. Ringforts, associated with a dairying economy, are the characteristic settlement form for this period in Ireland, and a number have been identified.

Over half of the ringforts identified are levelled examples (table 4.4). Of the three that survive there is urgent need for some active management. The bank of the ringfort at Rathmullen has been planted with whitethorn bushes and beech and the interior is used as a dump. The ramparts at Knowth have been damaged by cattle and the drains eroding the site should be diverted away from the enclosing bank. Newgrange has been badly eroded by cultivation. All the levelled ringforts are annually tilled. It is imperative that repairs and damage mitigation works be implemented at the ringforts in Knowth and Rathmullen, possibly in conjunction with the local farmers as part of a REPs programme. Regular aerial photographic coverage may detect further levelled sites or additional features associated with known sites. Levelled ringforts should be regularly walked for artifactual and structural evidence.

Table 4.4
Ringforts in the Bend of the Boyne

Location	Site type	SMR	Land use
Gilltown	Enclosure (site)	26:22	Tillage
Gilltown	Enclosure (site)	26:23	Tillage
Knowth	Ringfort	19:38	Pasture
Newgrange	Ringfort	19:39	Pasture
Oldbridge	Enclosure (site)	20:03	Tillage
Rathmullen	Ringfort	20:21	Pasture
Sheephouse	Enclosure (site	20:08	Tillage

The souterrains in the Bend of the Boyne have mainly been found during land reclamation works. Ideally all works of this nature should be monitored by an archaeologist. Farmers in the area should also be advised on the likelihood of discoveries, particularly souterrains, and be encouraged to report to the proper authorities. A programme of educational visits by archaeologists and the wide dissemination of literature (like *Farming and the ancient countryside*) could alert

farmers to potential discoveries.[122] In an excavation situation such as Knowth, these structures are found associated with houses so it is probable that the isolated examples in the area were also associated with dwellings. The vicinity of these isolated souterrains, usually under the plough (table 4.5), should be systematically field walked.

Table 4.5
Souterrains in the Bend of the Boyne

Location	SMR	Land use
Clonlusk	(No precise location)	
Dowth	20:17	Pasture
Oldbridge	20:04	Tillage
Oldbridge	20:07	Tillage
Rossnaree	19:48	Residential

It is possible that a Norse base existed on the Boyne, perhaps at Rossnaree, in the ninth century. This argument is based on the numerous references in the Annals to Norse incursions into the Boyne valley, repeated attacks on localities within the Bend of the Boyne, and the presence of a naval force of Norsemen on the Boyne at Rossnaree in 842 AD. Underwater investigations (recommended above to locate finds associated with the ford) could also yield information on these Norse occupants.

122. G. Stout and M. Keane, *Farming and the ancient countryside* (Dublin, 1997). This book identifies threats to archaeological monument types created by varying farming methods.

CHAPTER 5
MEDIEVAL AND LATE MEDIEVAL LAND USE IN THE BEND OF THE BOYNE (1142AD-1539AD)

5A Introduction

This chapter is divided into three sections which deal with the three main landowning grantees in the Bend of the Boyne during the medieval period; the Cistercians 1142-1539 (5B); the Normans grantees 1169-1539 (5C) and the Augustinians 1182-1539 (5D). Each section begins with a broad historical outline, followed by an examination of the nature of land use practised by each landowning group and its impact on the Boyne landscape in the medieval period. This chapter concludes with a discussion of conservation priorities for the medieval/post medieval components of the Boyne landscape (5E).

5B The Cistercians: 1142-1539 AD

5Bi – Historical background In the twelfth century, the Christian church experienced a revolution in religious organisation and practice throughout Europe, resulting in the foundation of many new religious orders. The Cistercians were the first of these new continental orders to come to Ireland, bringing with them a new style of monasticism, land management and architecture.[1] The ordered layout of their buildings, arranged around a square or quadrangle, contrasted sharply with the informal arrangement within the earlier Irish monasteries. Cistercian monks were firmly established in the Bend of the Boyne before the coming of the Normans. Their house at Mellifont, on the banks of the Mattock, a tributary of the Boyne, was the first in Ireland, founded in 1142 AD. The foundation was made by Saints Bernard and Malachy with the assistance of Donnchadh Ó Cearbhaill, king of Airghialla, who granted the monks the site and the land with which it was endowed.[2] The grant was at the recently conquered southern reaches of Airghialla territory, a frontier location which is typical of many Cistercian abbeys, as it was for many Early Christian foundations (fig. 5:1).[3] Putting so much land into the hands of this continental order created an effective buffer zone on the southern frontier of Ó Cearbhaill's kingdom. Donnchadh's grant also had ecclesiastical implications because the 'mid-water of the Boyne' now became the southern frontier of the province of Armagh.[4] By the

1. R. Stalley, *The Cistercian monasteries of Ireland* (London, 1987), pp 7-16.

2. Fr Colmcille, 'Seven documents from the old abbey of Mellifont' in *County Louth Archaeological and Historical Journal*, xiii (1953), pp 35-67, see p. 39.

3. F. Byrne, *Irish kings and high kings* (London, 1987), p. 89; P. Ó Riain, 'Boundary association in Early Irish society' in *Studia Celtica*, vii (1972), pp 12-29.

4. B. Smith, *Colonisation and conquest in medieval Ireland: the English in Louth 1170-1330* (Cambridge, 1999), p. 20.

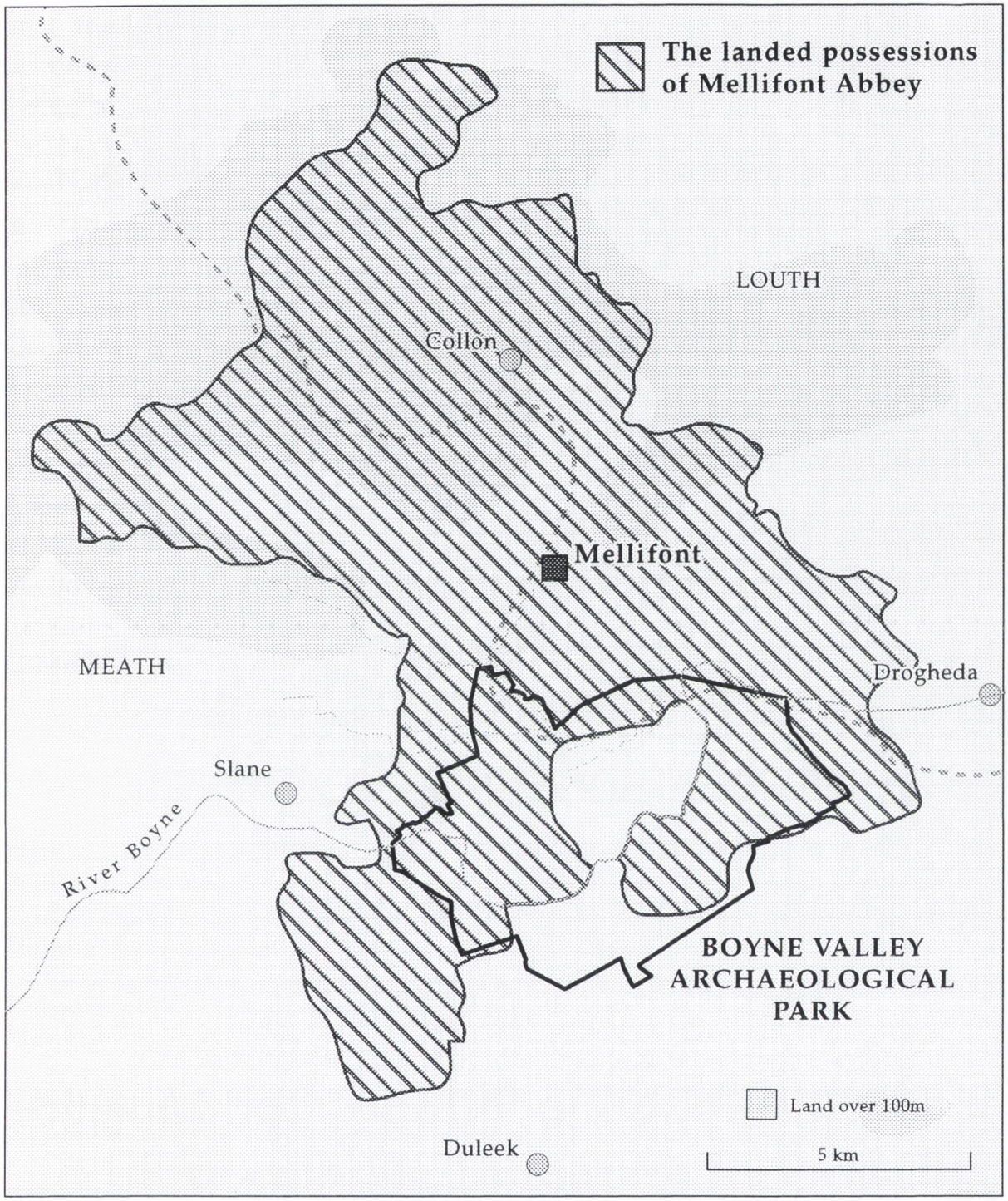


Fig. 5.1 The landed possessions of Mellifont Abbey at its dissolution in 1539 (after Colmcille, 1958).

time the Normans arrived in Ireland in 1169, there were already twelve Cistercian houses in Ireland affiliated to it and their farms dominated the medieval countryside in the lower Boyne valley.

The year 1178 was the first year of contact between the invaders and the monks (table 5.1).[5] In that year a charter and confirmation was issued by Henry II in relation to the Cistercian appurtenances of Mellifont as well as various lands and granges held by them prior to the invasion (table 5.1, source 1). In a charter of 1185 served by Prince John, two further places in the Bend of the Boyne are identified (source 2).[6] In a confirmation and grant by King John to the monks of the monastery of St. Mary's, Drogheda in 1203. Donore is first mentioned (source 3).[7] An Inspeximus by Edward III in 1329 mentions six localities within the study area, and records of 1348 mention seven places within the study area.[8] Mellifont Abbey with its vast lands was dissolved on 23 July 1539.[9] In the extents of the Mellifont possessions following the dissolution, eleven places within the Bend of the Boyne were listed (source 4), and this extent was corroborated by a patent of 4 June 1612, which records a grant to Sir Garret Moore, of the abbey and its precincts at Mellifont.[10]

Table 5.1

Places within the Bend of the Boyne held by Mellifont Abbey

Place	Source 1 1178	Source 2 1185	Source 3 1203	Source 4 1539
Balfeddock				*Balyfadocke*
Cruicerath	*Croch*		*Croch*	*Croch*
Donore			*DunWabair*	*Donnore*
Gillltown				*Gyltone*
Knowth	*Cnogba*	*Cnogba*		*Knoythe*
Monknewtown				*Newtown of Monkland*
Newgrange				*Newgrange*
Oldbridge	*Grangia de vetere ponte*	*Drochetatha*		*Oldebryge*
Rathmullen		*Raithmolan*		*Ramolan*
Rossnaree	*Rossnaring*	*Rossnarigh*		*Rosinre*
Sheephouse				*Shephowse*
Staleen		*Teachlenni*		*Staylyng*
Littlegrange				*Lytlegrange*

5. Fr Colmcille, *The story of Mellifont* (Dublin, 1958), p. 38.

6. Colmcille, 'Seven documents', p. 41.

7. *Ibid.*, pp 36-7.

8. Colmcille, *Mellifont*, p. 105.

9. *Ibid.*, p. 171.

10. *Calendar of Irish patent rolls of James 1* (Dublin, 1966); see patent roll, 10 James 1, part 2, p. 130.

The full extent of the Mellifont monastic estates in counties Meath and Louth has been estimated at 20,235ha (54,000 acres) and incorporated a large portion of the lands in the Bend of the Boyne study area (figs 5.1, 5.2). The physical legacy of the Cistercians in the Bend of the Boyne is examined under four subject headings: granges (5Bii); mills (5Biii); fisheries (5Biv) and monastic settlements (5Bv).

5Bii – Cistercian Granges The Cistercians introduced a revolutionary scheme of land management into the Boyne Valley which had previously been pioneered on the Continent and in England.[11] Their rule demanded that each abbey be self-sufficient and their estates were accordingly divided into farms (granges) worked directly using lay brothers for agricultural labour. The grange was the economic unit designed to provide a surplus for the use and enjoyment of the monastic order. Each grange had its own nucleus of farm buildings. Newgrange, Sheepgrange, Roughgrange and Littlegrange probably correspond with the location of these medieval monastic farms (fig. 5.2).

In Ireland, surviving buildings associated with these early granges are scarce; an insight into their arrangement survives in directions sent by Stephen of Lexington to the Cistercians in Jerpoint, county Kilkenny in 1228.[12] He advised that buildings should not be erected in the centre of the granges, but rather along their margins in a defensive layout on account of thieves. Barns and animal sheds should be the only buildings within these granges. A grange existed at Knowth from at least 1185 AD when it was mentioned in the charter served by Prince John.[13] Excavations on top of the passage tomb mound at Knowth revealed the grange buildings. They form a rectangular courtyard (36m long and 25m wide) enclosed by a masonry wall with lean-to buildings and an entrance in the southeast. One of the buildings had plastered walls, well finished with shaped sandstone blocks. A number of the structural stones were dressed, indicating a building of high status. The windows were divided into panels by a lattice of lead and were, therefore, presumably glazed. Amongst the finds were tiles bearing the name 'Maria' similar to those at Mellifont. A font was also found, conclusive proof of this building's religious function. The building might have been an oratory which served the lay brothers in the grange.[14] An entry in Bishop Dopping's Visitation Book of 1682-1685 indicates there was still a church at Knowth in the late seventeenth century.[15] Finds from the site included domestic

11. C. Platt, *The monastic grange in medieval England* (London, 1969), p. 15.

12. Stalley, *Cistercian monasteries*, pp 45-6.

13. Colmcille, 'Seven documents', p. 41.

14. G. Eogan, *Knowth: 21 years on* (Guide to exhibition, NUI Dublin, 1984), pp 20-1.

15. C. Ellison, 'Bishop Dopping's Visitation Book 1682-1685' in *Riocht na Midhe*, v (1973), p. 6.

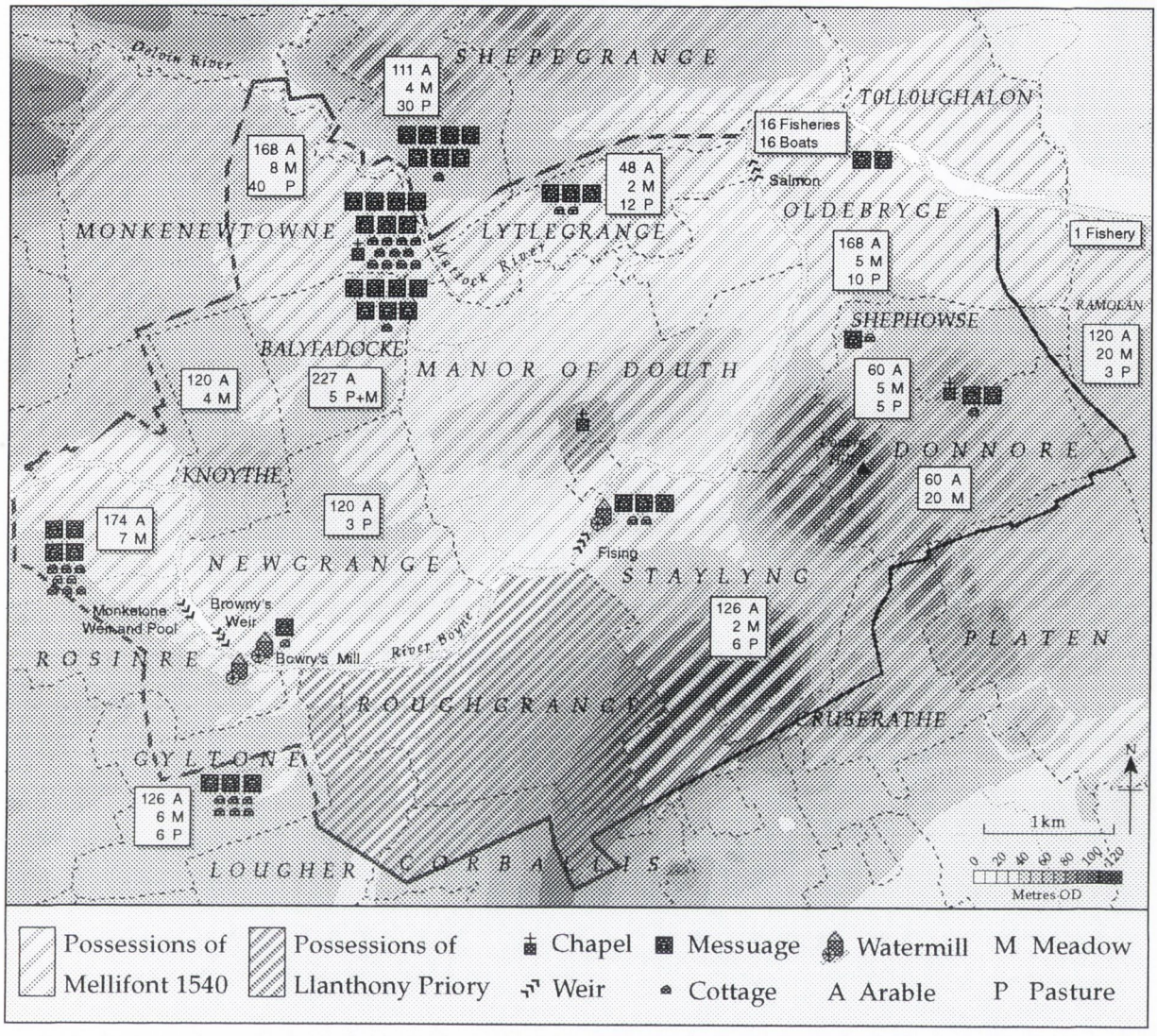


Fig. 5.2 Monastic possessions and settlement in the Bend of the Boyne *c.*1540.

items like wheel-made pottery, a knife, personal ornaments, weaponry (including arrowheads and spearheads) and evidence for an equine presence (horse-shoe nails and iron spurs). Coins found here included some minted in the reign of King Henry III (1216-1272). The configuration of this complex is similar to the grange buildings at Monkstown-Castlefarm in county Dublin, associated with the Cistercian abbey of St. Mary's, Dublin.[16] A series of low-lying enclosures north of the passage-tomb cemetery at Knowth may be additional remnants of this medieval farm and fields. They are confined to three fields which border on a stream which runs into the Mattock. They are centred on a large oval enclosure *c.*80m in diameter with external and internal ditches and a counterscarp bank. Attached to this are a series of small fields, one of which appears to overly a circular ditched feature and a D-shaped enclosure (fig. 5.3).

These monastic granges were centres of intense agriculture, including grain cultivation and cattle/sheep rearing. Such medieval farming practices have left their impact in both the archaeological record and in placenames. Wool was an important commodity linked to the thriving export industry which the Cistercians developed.[17] Sheepgrange and Sheephouse preserve the memory of these sheep farms (the latter name suggests the presence of a large barn in this townland). In England and on the continent, magnificent barns survive on medieval monastic farms, the most impressive being that at Great Coxwell, Beaulieu in England.[18] Whether there were buildings of comparable scale on the Cistercian estates in the Boyne valley remains to be seen. If they were built of timber and not stone, these barns would only be detected through excavation. Entries in the Statute Rolls indicate that the rearing of cattle must have been on a grand scale. In 1245 William Marshall received a mandate to make restitution to Mellifont for 600 cows which were taken by William Marshall, Earl of Pembroke, from the monastic lands to maintain the king's army in the war against Hugh DeLacy.[19] The archaeological evidence is represented by relatively high concentrations of sheep and cattle bones found during the excavation of buried field boundaries that ran east-west across the field just outside the stone circle at Newgrange. Glazed fifteenth- to sixteenth-century wares were found in association with the animal bone deposits.[20]

---

16 Stalley, *Cistercian monasteries*, p. 176.

17. Colmcille, *Mellifont*, p. xxviii.

18. W. Horn and E. Born, *The barns of the abbey of Beaulieu at its granges of Great Coxwell and Beaulieu-St. Leonards* (Berkeley, 1965).

19. H. Sweetman, *Calendar of documents relating to Ireland 1171-1251* (Dublin, 1875), p. 189, 11 April 1245.

20. L. Van Wijngaarden-Bakker, 'The animal remains from the Beaker settlement at Newgrange' in *R.I.A. Proc.*, lxxiv (1974), pp 367-8.

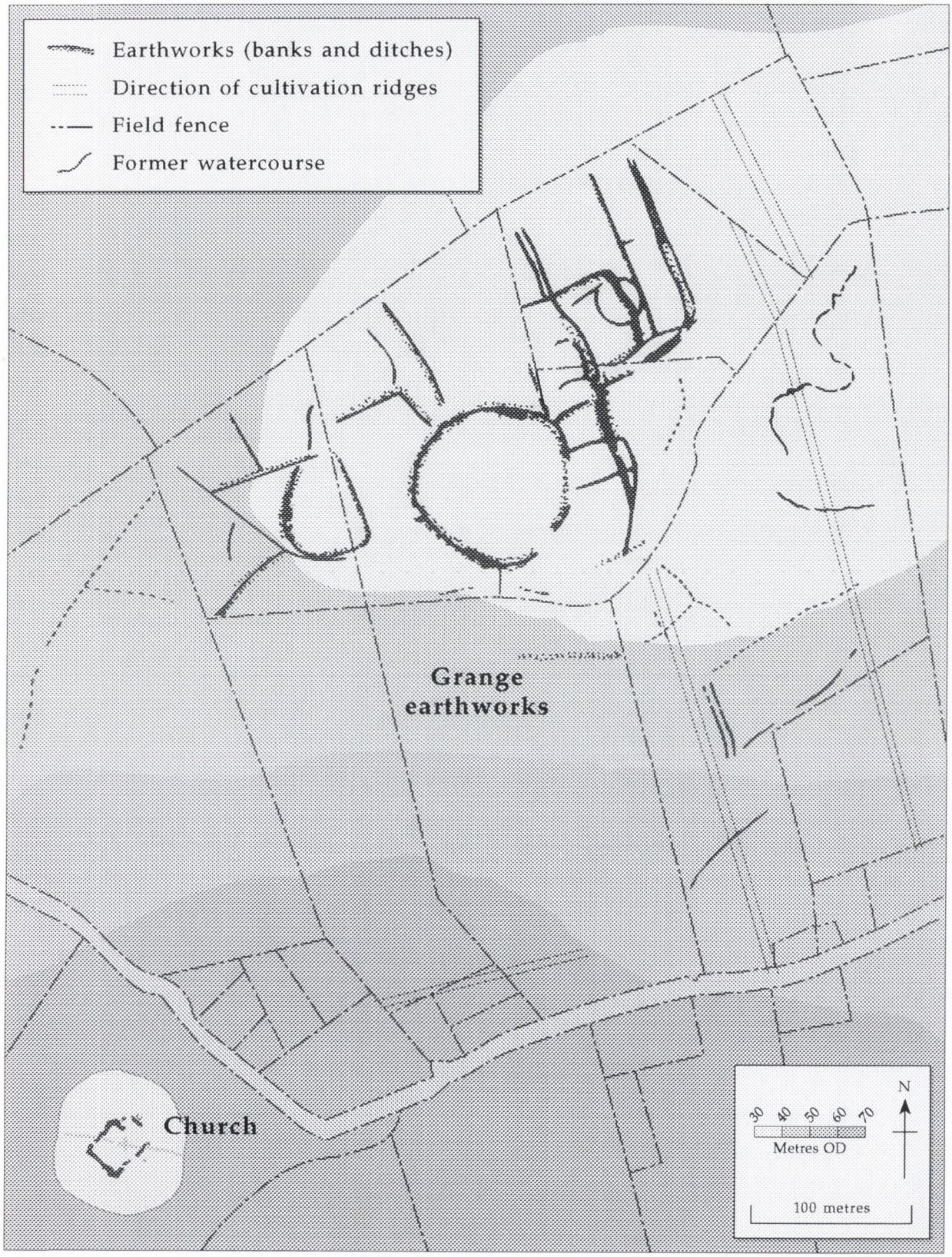


Fig. 5.3 Plan of the possible grange at Knowth based on aerial photography (church remains after Eogan, 1984).

The Cistercians contributed much to improve the quality and increase the volume of agricultural production. The huge quantities of grain exported from this area to England (including wheat, barley and oats) and the large arable area *c.*1540 indicate that tillage was the most important agricultural pursuit (table 5.2).[21] Under suitable conditions, evidence for cultivation in the form of ridge and furrow can be seen in the fields surrounding Newgrange. These run up and down across the contours: excavations southeast of Newgrange have dated these features to the medieval period. Ploughing was undertaken with a wooden mouldboard plough, whose sole was studded on the undersides and landward sides with pebbles (plough pebbles) set into holes to prevent undue wear where the timber made contact with the soil. The recovery of medieval plough pebbles in the fields at Balfeddock, Knowth, Townleyhall and Donore townlands provide further archaeological evidence that cultivation was extensive.[22] These worn stones, predominantly of quartz and flint, show a flat facet on which fine striae can be seen.[23] At Knowth, seventeen plough pebbles of quartz and mudstone were found with thirteenth-century potsherds. At Newgrange, ridge and furrow traversed the upper levels of Site Z, south-east of the main mound. Thirteenth/fourteenth-century wares are the earliest dateable association with this ploughing activity. At Newgrange, five plough pebbles were found in an extensive area from the vicinity of the main mound downslope to Site A. The tradition of mixed farming with an emphasis on tillage continued into the fifteenth century, as highlighted in a 1495 description of the area referring to 'fences', 'ditches', 'cornfields' 'grazing fields' and 'pastures' on the lands held by Mellifont.[24] This document demonstrates the intense exploitation of the abbey lands.

The preference for a tillage economy on this monastic land into the sixteenth century is highlighted by the large acreage listed as potentially arable (90%) in an *extent* of the monastic possessions at the dissolution of Mellifont Abbey in 1540. This high percentage indicates the use of the three-field system (table 5.2).[25] The importance of tillage is further underlined by the unit of payment for local tithes which was in use, the *copule* of grain. Such expanses of corn and meadow were relieved by some wilderness at Monknewtown where there is 'furze and briars'

21. G. Carville, The Cistercians in Ireland and their economy: 1142-1541 (Unpublished MA thesis, The Queens University of Belfast, 1969), p. 25; Colmcille, *Mellifont*, pp xxvii-xxix.

22. N. Brady, The plough in early historic and Medieval Ireland (Unpublished MA thesis, NUI Dublin, 1986).

23. M. O'Kelly, 'Plough pebbles from the Boyne Valley' in C. Ó Danachair (ed), *Folk and farm: essays in honour of A.T. Lucas* (Dublin 1976), pp 165-175, see p. 169, fig. 18.

24. Fr Colmcille, 'Seven documents from the old abbey of Mellifont' in *County Louth Archaeological and Historical Society Journal*, xiii (1953), pp 35-67, see pp 57-61.

25. White (ed), *Extents* .

and a local bog from which the residents of Rossnaree carted turf.[26] The presence of tillage and meadow suggests the need for some form of fencing to keep stock from the crops. However, the fact that the extent mentions an 'enclosed pasture' at Oldbridge might indicate that fencing was uncommon and that the three-field system was in use.[27]

Table 5.2
Agricultural statistics for the Bend of the Boyne 1539[28]

Townland	Arable	Pasture	Meadow
Balfeddock	227	5 (and meadow)	-
Donore	60	-	20
Gilltown	126	6	6
Knowth	120	-	4
Littlegrange	48	12	2
Monknewtown	168	40	8
Newgrange	120	3	-
Oldbridge	168	10	5
Rathmullen	120	3	20
Rossnaree	174	-	7
Sheephouse	60	5	5
Staleen (including Redmountain)	126	6	2
Total	**1517 (90.0%)**	**90 (5.3%)**	**79 (4.7%)**

5Biii – Mills The Cistercians played a key role in developing a milling industry on the Boyne for the processing of corn and wool. Mills and millponds are specified in charters of 1185 and 1203 confirming lands to Mellifont. The extents of the abbey's possessions at its dissolution listed monastic mills at Rossnaree, Staleen, and at Browe on the Boyne below Newgrange.[29] The Staleen mill was considered unprofitable in 1539 for want of repairs.[30] These were vertical-wheeled mills; a type which may have actually been introduced by the Cistercians.[31] Vernacular-style water mills have replaced the medieval sites at Staleen and Rossnaree but their location is presumably the same. Once mill-races were established on these sites by the Cistercians, there was no need to relocate them for use by later mills. To harness the water, weirs were erected across the river to divert some of its flow along a head race to the waterwheels. These are mentioned in the medieval sources and still survive in the modern Boyne (fig. 5.2).

---

26. *Ibid.*, p. 218.

27. *Ibid.*

28. *Ibid.*

29. Colmcille 'Seven documents', pp 37, 41; White (ed), *Extents*, Rossnaree, p. 258; Staleen, p. 253; Browe's mill, p. 257;

30. *Ibid.*, pp 216-19, this may be the same mill at Broe which appears on a Caldwell estate map from 1760; only the mill race is visible on the ground today.N.A. 1095/2/56, Caldwell Papers. A map of that part of Newgrange wasted and lost by the navigation with a draft of the old and new canal made near the river Boyne in the Barony of Slane and County Meath being part of the estate of Andrew Caldwell Esq. taken and surveyed by order and appointment of Mr. Robert Berrill the 25th day of January 1781 Patrick Frain.

31. A. Lucas, 'The horizontal mill in Ireland' in *Journal of the Royal Society of Antiquaries of Ireland*, vol. lxxxiii (1953), pp 1-36.

5Biv – Fisheries During the medieval period, the Cistercian monks of Mellifont Abbey played a key role in developing the resources of the Boyne for fishing.[32] The fish taken in the Boyne weirs supplied the markets of Dublin and Drogheda. The monks manipulated the water flow and installed devices to increase the harvest of fish. Amongst the possessions of the monks of Mellifont confirmed in a charter of 1203 were the fisheries above the Boyne tide-way.

> Free and quiet fishery in the Boyne so far as their lands extend on each side of the river, and prohibited any private or common right of fishing on that river within the limits of their lands.[33]

This grant was confirmed again in 1238.[34] The fisheries of the Boyne above the tide-way included three valuable salmon weirs at Rossnaree, Knowth and Staleen and these were confirmed in a charter of 1349 and in a legal adjudication of 1381.[35] At the dissolution of the monastery in 1539, there were weirs at Newgrange, Oldbridge, Staleen and Rossnaree.[36] At that time, the income of Mellifont Abbey included the annual rent arising from sixteen fishing currachs or coracles at Oldbridge and a fishery at *Ramolan* (Rathmullen).[37]

The two methods of fishing given prominence in the sources are the use of weirs and nets.[38] A fishing weir is an obstruction wholly or partially across a river channel. It works on the basis of a constant flow of water in one direction. Salmon and other fish were caught on their way upstream in cribs or traps and eels were taken while migrating downstream in the autumn. The weirs were formed of post and wattle barriers and/or stone walls. The fish were taken out from a pool within an enclosure or trapped in a 'coghill' net. In 1953, the weirs at Oldbridge and Rossnaree were considered to be virtually the same as those erected by the monks in medieval times.[39] They are certainly very substantial structures. The fishing weirs at Newgrange and Staleen have not been used recently for salmon but the weir at Staleen has been used as an eel trap.[40].

Netting for salmon was another method of fishing practised on the Boyne in medieval times. The boat used in this form of fishing was the Boyne coracle. It was designed specifically for netting salmon, but was also used in haulage and

---

32. G. Stout, 'Fishing at Brú na Boinne' in *Brú na Boinne:* a supplement to *Archaeology Ireland*, xi (1997), pp 34-5.

33. *C.D.I.* 1203; Colmcille 'Seven documents' pp 36-7.

34. *Ibid.*, pp 46-7.

35. A. Went, 'Material for a history of the fisheries of the river Boyne' in *County Louth Archaeological and Historical Journal*, xiii (1953), pp 18-33, see p. 22.

36. White (ed.), *Extents*, pp 217-8.

37. Colmcille, *Mellifont*, p. 253.

38. Went, 'The fisheries', pp 30-3.

39. *Ibid.*

40. Pers. comm. Pauline Fulham, Staleen.

carriage. Made with hide stretched over a wickerwork frame, the Boyne coracle has a great antiquity substantiated by a number of early historical references. For instance, a judgement was registered against the abbot of Mellifont in 1366 for obstructing navigation on the river by erecting a weir at Oldbridge:

> where boats called *corraghs,* with timber for building and flotes had liberty to pass constantly free from Drogheda to the bridge at Trim.[41]

At the dissolution in 1539, the possessions of Mellifont included an annual rent arising from sixteen of these fishing *corraghs* at Oldbridge.[42] The Boyne curragh was the only example of this type of basket-boat in existence in Ireland.[43] The body, which is built bottom upwards, consists of an open-work of paired hazel wands arranged to form a steep-sided bowl, oval in plan (fig. 5.4). The mouth or *gunwale* is formed first, the bottom and sides put into position later. A closely wickered skirting of slender hazel rods holds the upturned ends of the frame rods in position and the whole is finished off by a marginal twist of stout hazels. The flexible natural willow growing on the river islands at Oldbridge provided the raw materials for this local industry. A tanned ox-hide is then drawn over the wicker structure and laced to the gunwale at short intervals and at longer distances by an independent lacing which makes turns around both gunwale twist and gunwale rod. A wooden seat is slung at mid-length by paired cords at each end. A number of design features relate to its use a fishing vessel: a system of braces made of twisted hazel are attached to the framework which provides a platform where the net for fishing is piled and transported; the curragh is completed by lapping the gunwale in its median and stern sections with a strip of hide to prevent fraying of the net during paying out and hauling-in operations. The boat is rowed with a paddle of larch which is short and the blade parallel-sided; on the whole, the paddle resembles a cricket bat.

5Bv – Monastic Settlements From the thirteenth century onwards, the Cistercians changed over from a regime of direct exploitation of their lands by monks to one of lessees. From as early as 1208, the renting of lands on certain conditions was permitted by the general chapter of the Cistercian order.[44] By the fifteenth century, the use of lay brothers on their farms had virtually vanished. The reference to 'tenants and vassals' in correspondence of 1495 highlights the changes that had taken place. Cistercians had departed from their original observance which forbade tenants on monastic lands.[45] By this time the

41. Went, 'The fisheries', p. 39.

42. White (ed.), *Extents*, p. 253.

43. J. Hornell, *British coracles and Irish curraghs* (London, 1938), pp 154-61

44. Colmcille, *Mellifont*, p. xxxiii.

45. Colmcille, 'Seven documents', pp 58, 61; Colmcille, *Mellifont*, p. 149.

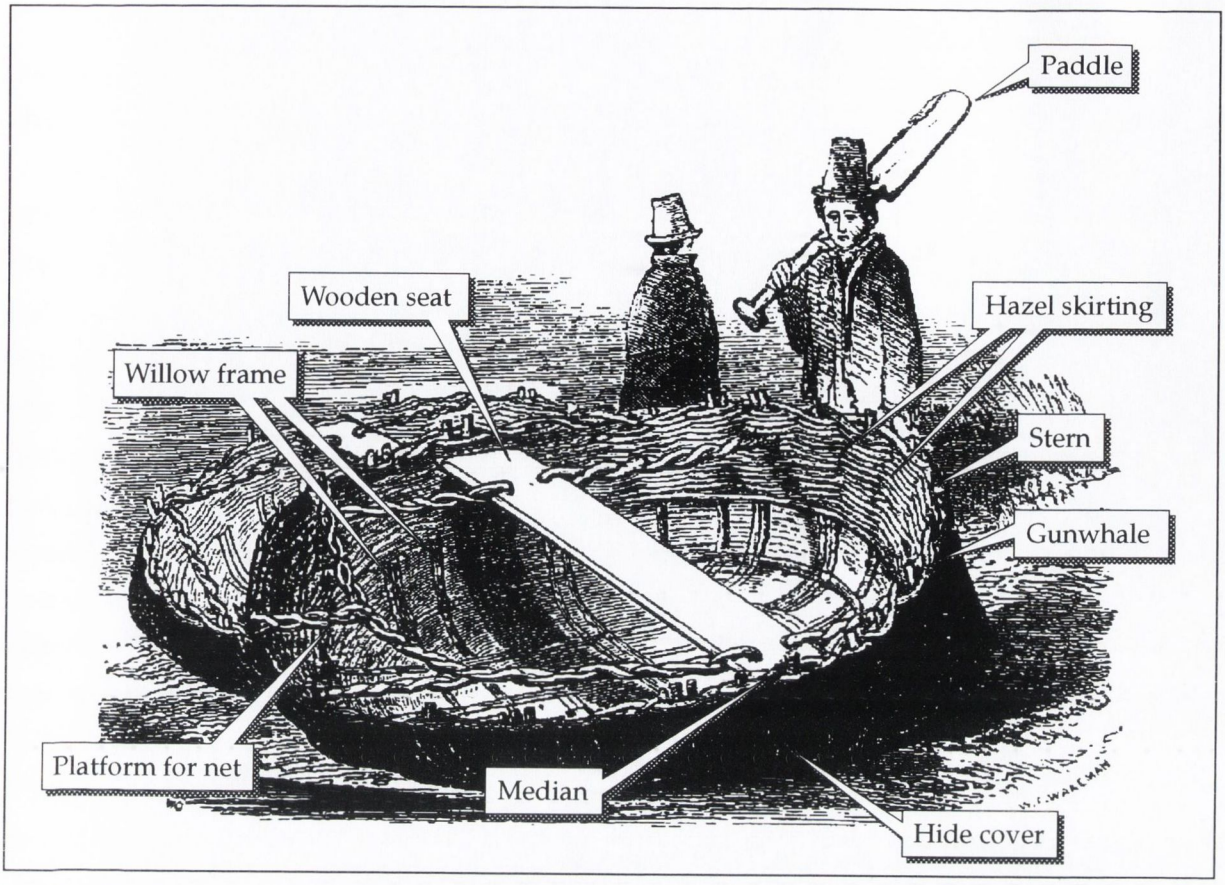


Fig. 5.4 The Boyne coracle (after Wakeman, 1872).

Cistercian monks had become great landlords with the main source of income coming from rents together with the tithes, altarages, and oblations from various churches.[46]

As this process of secularisation continued in the Boyne valley, former granges were replaced by small nucleated settlements similar to those found on lay manors. Nonetheless, these lands remained outside the process of secular sub-infeudation manifested in placename evidence by the townland suffix 'town'.[47] As a consequence, there is a lower frequency of 'town' placenames in the Bend of the Boyne than elsewhere within the Pale (fig. 5.5). In terms of settlement, the principal difference was that the construction of a fortified residence or towerhouse did not occur on the nucleated settlements on Cistercian-held lands in the Bend of the Boyne. Indeed, the general absence of towerhouses in south-west Louth and a portion of north Meath reflects this trend (fig 5.6). Settlements developed around the Cistercian churches at Monknewtown (or the Newtown of Monkland as it was known) and Donore, and these later developed as parish centres. The 1539 extents indicate that a basic settlement hierarchy had developed at these monastic settlements with messuages (a dwelling house with out-offices and land) and cottages being recorded (fig. 5.2). *Messuages* suggests that individual property boundaries were in place. The greatest nucleation was at Monknewtown with its seven messuages and ten cottages associated with a church. There were nucleated settlements, unassociated with churches, at Balfeddock (seven messuages and one cottage) and Gilltown (three messuages and six cottages). The extents provide a list of chaplains who were former monks of the monastery. By authority of king's letter patent, they were permitted to officiate in the chapels.[48] In 1332, the 'vill' at Knowth was burned and the inhabitants murdered.[49]

These churches continued to be used after the Reformation for Protestant services and were kept in reasonable repair. Many are described in 1622 by the newly established Bishop of Meath, James Ussher, who made a return on the state of the diocese when a Royal Commission was initiated for the visitation of the province of Armagh. This was Ussher's first episcopal act as bishop of Meath whose diocese at the time was the best arranged in Ireland.[50] Included in his report are two curacies in the Bend of the Boyne at *Donoure* (Donore) and

46. *Ibid.*, pp xxxiv.

47. T. Jones Hughes, '*Town* and *Baile* in Irish place-names' in N. Stephens and R. Glasscock (ed.), *Irish geographical studies in honour of E. Estyn Evans* (Belfast, 1970), pp 244-58.

48. White (ed.), *Extents*, Tullyallen, Monknewtown, Donore and Knockcommon, p. 219; Dowth, p. 316.

49. Smith, *Colonisation and conquest*, p. 108.

50. C. Elrington, *The whole works of Most Rev. James Ussher, Lord Archbishop and Primate of Ireland, i* (Dublin, 1864), p. 57.

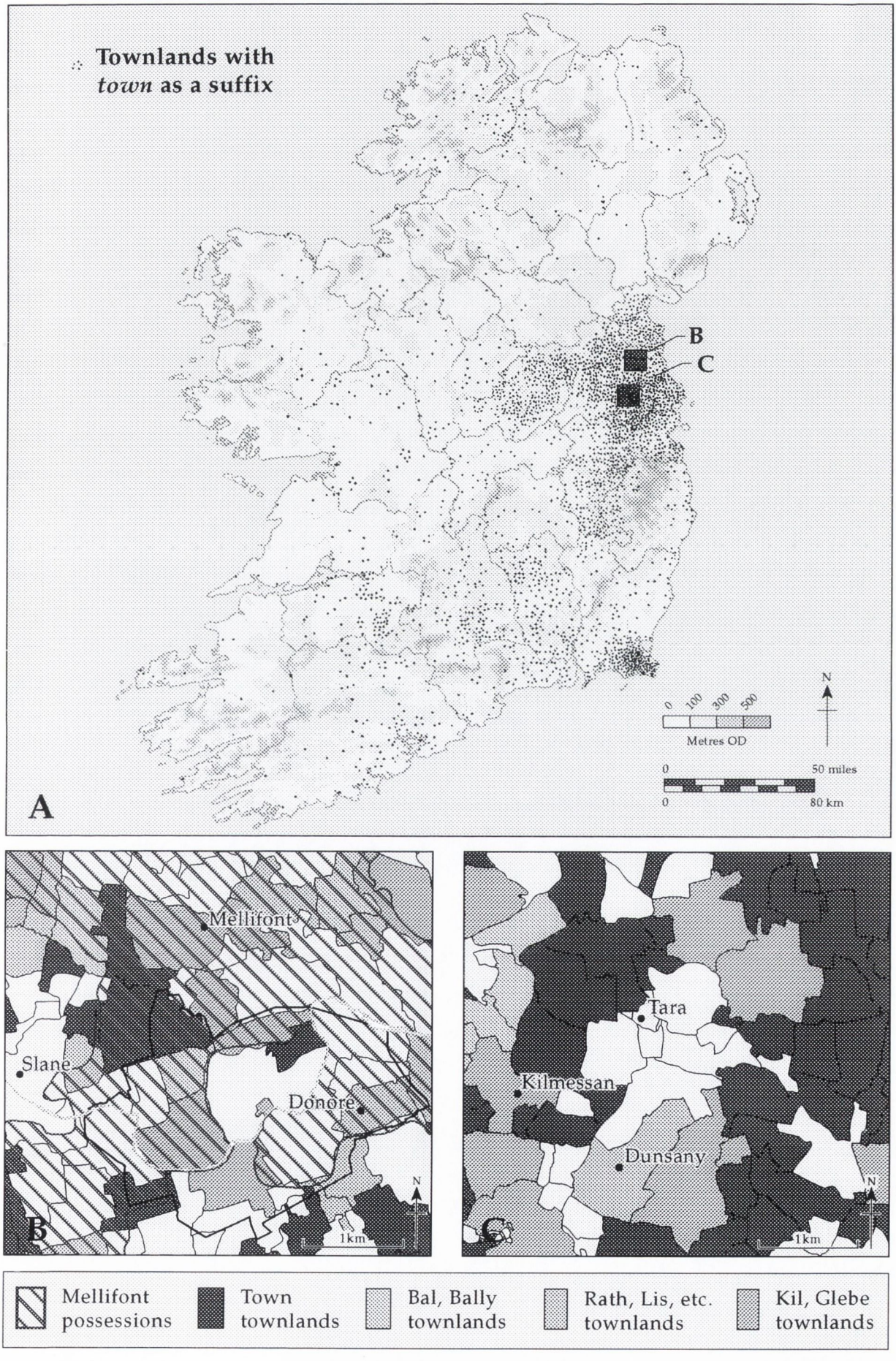


Fig. 5.5A 'Town' townlands in Ireland (after Jones Hughes, 1970). Fig. 5.5B Townland names in the lower Boyne Valley. Fig. 5.5C Townland names in south-eastern Meath.

Munknewtowne whose churches are described as being in reasonable repair. Nicholas Tedder (curate at Monknewtown) and Robert Burton (curate at Donore) were both non-resident.

As recently as the early nineteenth century, communities on the earlier Mellifont estates still considered themselves to be distinctive. According to the Tithe Applotment Books, 'the tenants on these lands have taken them free from tithe [as they] originally belonged to the Lordship of Mellifont'.[51] Today, placenames and the ruinous remains of these monastic chapels and churches survive as a testament to the extensive holdings of the Cistercians. The absence of 'town' placenames in this area and on the Mellifont estate in general, despite its location within the Pale area, reflects the impact of the Cistercians on placelore. This is even more apparent when this part of east Meath is compared with a more 'Normanised' area like Dunsany where there is a contrastingly high frequency of 'town' names (fig. 5.5).

The monastic church of Donore in the townland of Sheephouse is prominently located on a hilltop. It suffered greatly during the Battle of the Boyne (see chapter 6). Foundations of the east end of the church and part of the north wall of the church are all that survives. There are traces of an east window.[52] A grave-slab lying in the east end of the church comprises part of an altar tomb to John Genet (d. 1609).[53] According to Doppings Visitation 1682-85, the church had been repaired by this John Genet. At this time, church furniture was needed and the churchyard was unfenced. There was no glebe associated with it.[54] The head of a disc-headed cross of seventeenth-century date lies in the graveyard.[55]

The church at Monknewtown is very overgrown. It has an undivided nave and chancel; the west gable is nearly complete. The stone work is good with courses of mainly large stones and rough ashlar used for the quoins. Its gable is surmounted by a double belfry with round-headed arches. The west wall has a round-headed window with a lintel arch and wide splay. The jambs are unbevelled with some bar holes. A corbel with a face carved on it has been incorporated into the west wall.[56] A font from the church dated 1567 is now in the nearby Roman Catholic church.[57]

---

51. N.A., Tithe Applotment Books: parish of Knockcommon, f.17.

52. M. Moore (comp.), *The archaeological inventory of county Meath* (Dublin, 1987), p. 144.

53. W. Wilde, *The beauties of the Boyne and Blackwater* (2nd edition, Dublin, 1850), p. 243.

54. C. Ellison, 'Bishop Dopping's visitations: 1682-85' in *Riocht na Midhe*, iv (1971) pp 28-39, see p. 36-7.

55. Moore (comp.), *Meath*, p. 144.

56. *Ibid.*, p. 140.

57. H. Roe, *The medieval fonts of Meath* (Dublin, 1968), pp 124-5.

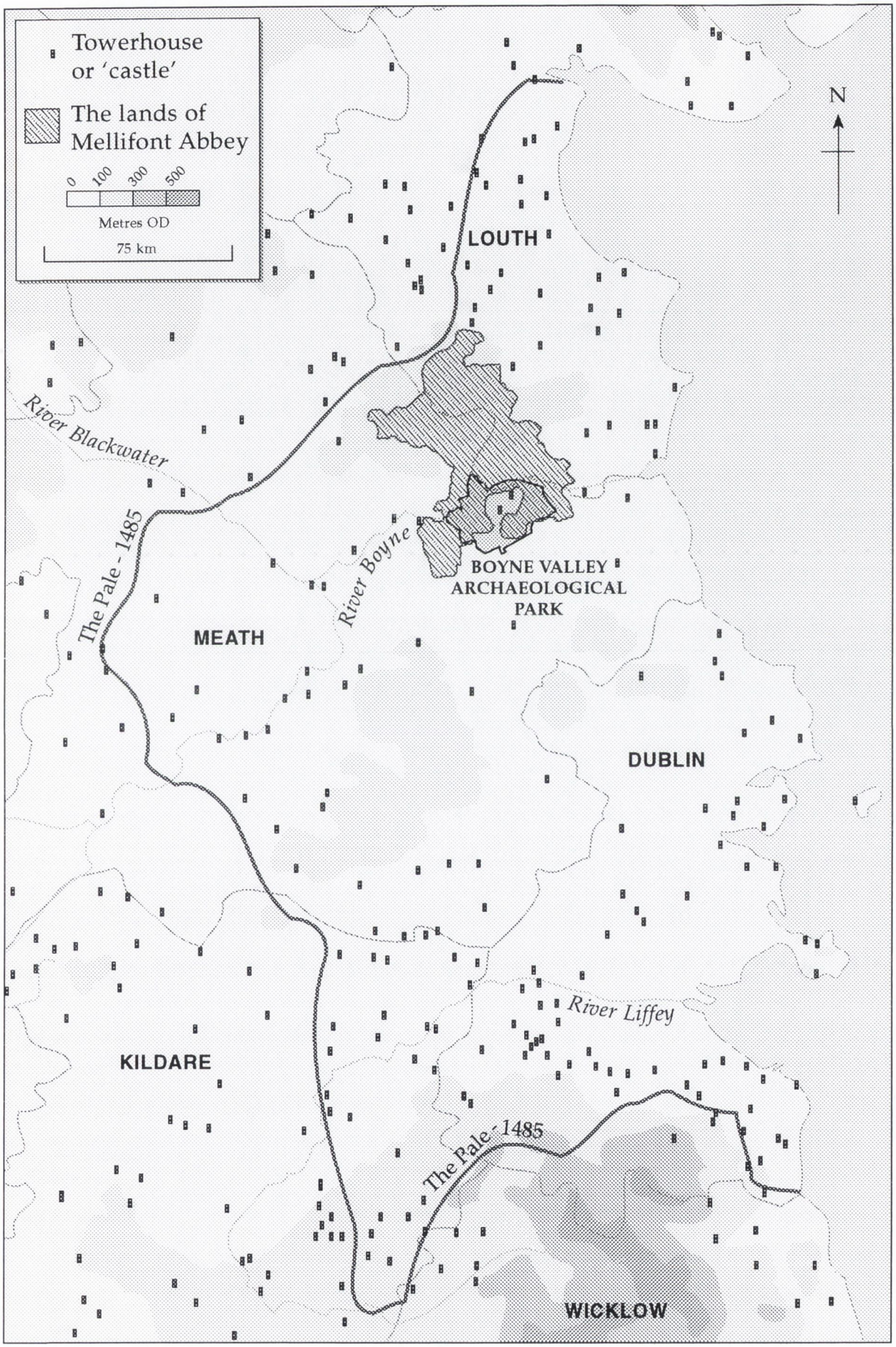


Fig. 5.6 Towerhouses in the region of the Pale (after Galway, 1985-6 and Dúchas files).

5C Norman Settlement (1169-1539)

5Ci – Historical background The kingdom of Meath, comprising the present day counties of Meath and Westmeath, north-west Offaly and east Longford, were granted to the Norman Hugh DeLacy by King Henry II in 1172. This followed Henry II's declaration that he was Overlord of Ireland.[58] While this grant entitled DeLacy to the undivided kingdom of Meath, he in fact inherited the problems of a divided kingdom. Henry II had received only one submission in this divided kingdom from Ua Ruairc who together with Ruaidhrí Ó Conchobhair had partitioned the kingdom of Midhe after the death of Diarmaid Ua Maelechlainn. As a result, DeLacy had to adopt a different approach to conquest in the west than in the east of the kingdom of Meath.[59] The colonisation process in the east was facilitated by the submission of Ó Ruairc, king of east Meath. Here, DeLacy was given access to the lands of a defeated Irish king. Giraldus Cambrensis claimed that DeLacy was building strong castles throughout Meath and Leinster.[60] This military groundwork had been completed early in east Meath, allowing the lordship to extend and consolidate further westward.

DeLacy became active in Meath immediately upon receiving his grant. By 1174 Duleek emerged as an early Norman base in the lordship. An extensive Norman presence in Meath as early as 1174 is suggested by a reference in the *Annals* to castles built at Trim, Dunshaughlin, Skreen, Navan and, most importantly for this study, Knowth.[61] The castle at Slane near the northern boundary of the lordship was also established and well manned by 1174. Slane was the site of a town as well as a garrison, as some accounts note the presence of women and children. Richard Fleming conducted raids from there against Fir Midhe, Breifne and Airghialla.[62] The early sub-infeudation of the Liberty of Meath took place between 1172-3 with the initial land grants concentrated on its borders. These are described in *The Song of Dermot and the Earl,* a twelfth-century poem which lists the initial enfeoffments to barons by Hugh DeLacy.[63] In East Meath, DeLacy made at least ten major grants of land, each equivalent to a future barony in extent. In the Bend of the Boyne, these included the grant of Slane to Richard le Fleming and smaller grants to Adam de Dullard around Dollardstown and Painestown in

58. J. Mills and J. Mc Enery (ed.), *Calendar of the Gormanston Register* (Dublin, 1916) p. 177.

59. H. Carey, The kingdom and lordship of Meath: 1100-*c.*1215 (unpublished MLitt thesis, Trinity College Dublin, 1998).

60. A. Scott and F. Martin (ed. and trans.), *Expugnatio Hibernica; the conquest of Ireland by Giraldus Cambrensis* (Dublin, 1978), pp 191, 195; A. Otway-Ruthven, *A history of medieval Ireland* (second edition, New York, 1980), p. 63.

61. *Misc. Ir. Annals* , 1176 recte 1175. This entry was placed under the year 1176 but is accompanied by a reference to the death of Magnus Ua Maelechlainn which is known to have taken place in 1175.

62. Carey, Meath, p. 77.

63. G. Orpen (ed. and trans.), *The song of Dermot and the Earl* (Oxford, 1892); B. Graham, 'Anglo-Norman settlement in county Meath' in *R.I.A. Proc.*, C, lxxv (1975), pp 223-49.

the barony of Duleek. Large areas of Duleek were retained as seigniorial manors, personally held by DeLacy.

The process of colonisation did not take place without setbacks. Giraldus records that Ua Conchobair arrived in Eastmeath in 1174:

> and finding all the castles there empty and deserted, he burned them down and razed them to the ground up to the very borders of Dublin.[64]

In 1175 the Normans took part in a counter campaign during which they traversed and laid waste to 'the whole of Meath from Athlone to Drogheda'.[65] Subsequently, the castle at Slane was destroyed in 1176 by Ua Cearbhaill.[66] By 1191 the conquest was completed and the lordship had assumed its final shape (fig. 5.7A). East Meath (the present county Meath) became one of the most intensively settled Norman regions in Ireland.

5Cii – Early Fortifications The Liberty of Meath was brought under military control through the construction of earthwork castles which housed garrisons. In the initial phase of the DeLacy conquest, large flat-topped earthen fortifications (*mottes*) were constructed in strategic positions within the major land grants. These were substantial earthen mounds, whose flat summit would have held wooden buildings and defences. One hundred and ten mottes have been identified in the Liberty of Meath.[67] Thirty-three contain baileys (an enclosure at the base of the motte which would have protected the garrison).[68] They cluster along the major river valleys, particularly along the Boyne where they were sited to protect river crossings.[69] Primary mottes had baileys and were built on the principal land grants, such as Slane; *secondary mottes* (without baileys) had a more limited role and were built to secure a manor. Further, mottes referred to in the sources usually have baileys, although this is not the case for Knowth.[70] The view that the presence or absence of a bailey can be used to classify mottes on functional grounds has yet to be satisfactorily established.

---

64. J. Dimock (ed. and trans.), *Expugnatio Hibernica Giraldi Cambrensis Opera, v* (Rolls Series, Dublin, 1967), p. 139.

65. *Misc. Ir. Annals*, Ann. Tig., 1175, see also A.U. 1176.

66. *Misc. Ir. Annals*, Ann. Tig. 1176.

67. Moore (comp.), *Meath*, pp 156-61; Dúchas, Recorded monuments and places, county Westmeath (Dblin, 1996); Graham put the figure at ninety four, eighty-four surviving mottes and ten destroyed mottes. See B. Graham, 'The mottes of the Norman Liberty of Meath' in H. Murtagh (ed.), *Irish Midland Studies* (Athlone, 1980), pp 39-56.

68. *Ibid.*

69. B. Graham, 'Anglo-Norman settlement in county Meath' in *R.I.A. Proc.*, C, lxxv (1975), pp 223-49, see p. 230.

70. B. Graham, 'Medieval settlements in County Meath' in *Riocht na Midhe*, v (1974), pp 40-59, see pp 42-3; B. Graham, 'The mottes of the Norman Liberty of Meath' in H. Murtagh (ed.), *Irish Midland Studies* (Athlone, 1980), pp 39-56, see p. 48; B. Graham, 'Medieval settlements in County Meath' in *Riocht na Midhe*, v (1974), pp 40-59, see p. 43.

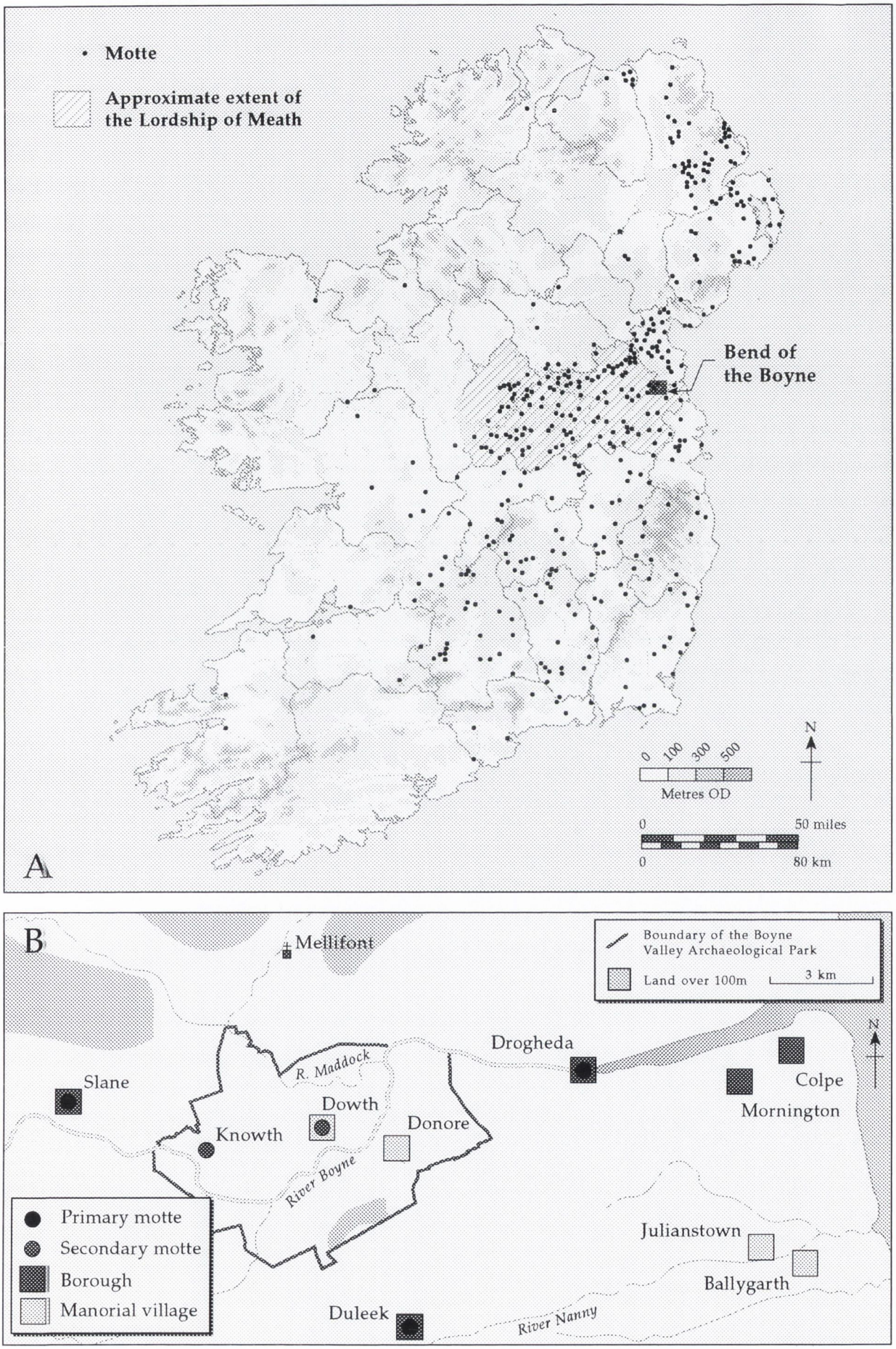


Fig. 5.7A Distribution of mottes in Ireland (after G. Stout and M. Stout, 1997). Fig. 5.7B Norman mottes and urban settlement in the lower Boyne Valley (after Graham, 1974).

In the lower Boyne valley, primary mottes were constructed on strategic heights above the Boyne at Drogheda and on Slane Hill (fig. 5.7B). To the south of these lay the primary motte at Duleek.[71] To secure the intervening territory, the prehistoric tombs at Knowth and Dowth were also fortified.[72] For a short time, Knowth was included in the land of the Norman knight Richard Fleming who fortified it in 1176 as an aid to holding his recently acquired lands around Slane. Knowth was only used for a short while by Fleming before its lands were incorporated into a Cistercian grange in 1185. The passage tomb at Dowth was reputedly used as the site of a DeLacy motte.[73] Drawings by Beranger (1775) and Wakeman (1848) show a barrow-like feature on the top of Dowth mound.[74] A section of this earthwork is still traceable on the summit of the mound. Its nineteenth-century excavator refers to a 'flattened space of nearly four yards wide forming the base of a capping'.[75] This could be the remains of a medieval motte built on the prehistoric mound. Reliable historical evidence is non-existent, but Dowth's use as a medieval fortification is corroborated by the fact that a medieval manor was established here and that these lands were not granted to Mellifont abbey.

5Ciii – Manorial settlements In east Meath, ten boroughs developed around mottes on principal land grants or seigniorial manors including Drogheda, Duleek and Slane on the outskirts of this study area (fig. 5.7B). Below these in size and status was the manorial village, by far the most common rural settlement form in medieval Meath to have resulted from early sub-infeudation (fig. 5.7B).[76] The manorial village is a settlement without borough status but containing a church and usually a castle and mill.[77] These are settlements with a primarily agricultural function. The manorial village focused around the church and motte which was often subsequently replaced by a towerhouse. Towerhouses date from the period of renewed activity in ecclesiastical and military building which characterised the late fourteenth and early fifteenth centuries. The development of a manorial village around a motte is very common in Meath; at Dowth, a manor was established by the middle of the thirteenth century.[78] Dowth is the

71. *Ibid.*, p. 46. This motte was cleared away for gravel in the eighteenth century.

72. *Ibid.*, p. 51.

73. J. D'Alton, *History of Drogheda*, (Dublin, 1844), ii, p. 432.

74. M. O'Kelly and C. O'Kelly, 'The tumulus of Dowth, county Meath' in *R.I.A. Proc.*, C, lxxxiii (1983), pp 135-190; see plate ii.

75. *Ibid.*, p. 149.

76. Graham, 'Mottes of Meath', p. 45.

77. Graham, 'Medieval settlements in Meath', p. 225.

78. Graham, 'Mottes of Meath', p. 54.

only manorial village in the study area. Throughout the conquered areas minute military tenancies were created to satisfy the desire of the settlers for knightly status.[79]

The process of subinfeudation is seen at Dowth. The le Fleming family had been enfeoffed of nearby Slane by Hugh DeLacy and Dowth was included in these holdings. The earliest English tenant of Dowth was Herbert DeRushbury who received this holding from le Fleming in the 1170s. In about 1220, DeRushbury granted the tithes of the church of Dowth to the house of Llanthony.[80] The medieval manor at Dowth (with the exception of the church which now belonged to the Augustinians) passed into the hands of Ralph de Picheford.[81] The de Pichfords were a West Midland family who obtained lands at Dowth for part of a knight's service from Baldwin le Fleming sometime after 1226 when he was sent on the king's service to Ireland and before 1234 when he is found in the Boyne valley as constable in Drogheda in custody of the castle there.[82] He was also made sheriff of Louth in that year.[83] In 1244 de Picheford was engaged on the king's service in fortifying a castle in the marches of Wales and could not be summoned to Ireland to answer a case against him brought by Baldwin le Fleming.[84] This case presumably involved his failure to provide knight service *in absentia*. In 1253 Ralph de Picheford died and in April that year an inquiry was set up to establish how much land he held from the king. In the 'extent of the lands of Dunethe', the jury of twelve men recorded that 'Ralph held nothing of the king *in capite* in Ireland but he held land from others:

> Of Baldwin (le Fleming) of Dunethe, the manor of Dunethe, for 5 carucates of land, by service of one-eighth of one Knights fee.[85]

In August 1253 this case (an *inquisition post mortem*) was finally heard and a decision was made to return the manor of Dowth to the custody of le Fleming to hold till the coming of age of Ralph's heir:

> It appears by inquisition that Ralph de Picheford did not hold the manor of Duneth of the king *in capite* but of Baldwin le Fleming by knight service and that on Ralph's death Geoffrey of St. John, the King's escheator, in Ireland took it into the King's hand. The king, therefore gives to Baldwin the custody of the manor, to hold till the age of Ralph's heir, saving to his wife her dower. Mandate to the escheator aforesaid,

---

79. Smith, *Colonisation and conquest*, p. 40

80. *Ibid.*, p. 38.

81. B. Smith, 'The de Pitchford family in thirteenth-century Ireland' in *Studia Hibernica*, xxvii (1993), pp 29-43.

82. *C.D.I.*, 1226, no.1440, p. 217; no. 283, p. 42; 1234, no. 2208, p. 327.

83. Smith, *Colonisation and conquest*, p. 42.

84. *C.D.I.*, 1244, no. 2724, p. 406.

85. *Ibid.*, 1253, no. 179, p. 27.

to cause to Baldwin to have seisin of the manor and to take to him security for 10 marks and two hogheads of wine.[86]

A charter of 1280 recorded in the cartularies of Llanthony Prima and Secunda, refers to John de Picheford (Ralph's son) and Dowth, and indicates that the de Picheford family retained their hold on the Dowth property.[87] Margaret, John de Picheford's widow, travelled to Ireland in 1301 and her son, another Ralph, travelled back and forth between Ireland and Wales during 1285-1302. With his death the connection between Dowth and the de Pichefords came to an end.[88]

The enquiry into the lands of Ralph de Picheford of 1253 is of importance to this landscape study because it provides a detailed description of the tenant's land use and buildings in and around the disputed manor:

> In Dunethe there are in demesne 132 acres of land and meadow; value of the acre, 12d.; the garden and dovecote, 6s; 2 mills, 5 marks; the fishery, 3 half marks... Free tenants, within and without the vill:-Alan Prutfot holds 2 carucates in fee farm, at 40s. a year; Gilbert *filius Presbiteri*, 21 acres in fee farm, at 9s. 2d. a year; Gillegmundi Mac Regan, 15 acres, at half a mark a year and six day's work in autumn, value of the days work 1d, Gillecrist Olnuthy, 19 half acres in fee farm, at 18s. 6d. a year, and 18d., for a house.; John le Sauvage, half a coruscate in fee farm, at 20s. and 10d. for work; David Fitz Walter, half a carucate in fee farm, at 24s. 4d. a year; Gelus son of Gelus, 25 acres in fee farm, at 5s., a year; the heir of William of Ardmilchan, who is in wardship, 30 acres whereof his mother holds one-third in dower at 4s. and 5d. and there remains 20 acres in the hand of the king, for 4 years, value of the acre, 12d. and when the heir is of age, he shall render 1 mark a year for the 30 acres; from the *coterelli* [cottiers?] for their gardens, and 85 acres of outward land held from year to year, and for their work, 6*l*, 15s. and 9d. pleas and profits 20s. a year... Total extent of the manor, 31*l*. 14s. 8d, whereof Ralph's wife has one-third in dower, namely 10*l*.11s.6 half d. and there remains for the other two-thirds, 21*l*. 3s and 3 half pence.'

The manor incorporated five ploughlands with 132 acres set aside for de Picheford's demesne with its garden and dovecote and it was largely under meadow.[89] The manor contained two mills which suggests that grain was extensively cultivated on the manorial lands. The fishery was probably located on the Boyne which lies south of Dowth manor. On this manor, there were nine fee farm tenants (six English and three Irish) of whom the English had holdings ranging from twenty-one acres to two ploughlands. The only other tenants on

86. *Ibid.*, 1253, no. 283.

87. E. Brooks (ed.), *The Irish cartularies of Llanthony Prima and Secunda* (Dublin, 1953), p. 238.

88. Smith, *Colonisation and conquest*, p.42.

89. *C.D.I.*, 1253, no. 179; for Dunethe [Dowth] see Otway-Ruthven, *Medieval Ireland*, p. 114.

this small manor were a number of cottiers whose labour service had been commuted.

It is not known how the de Pichefords lost their title to Dowth after 1302. Neither is it known how the Netterville family came to be intimately associated with Dowth manor. The Nettervilles were probably a family immigrant into Meath as feudatories of Hugh DeLacy. They are associated with Meath from an early date. Luke de Netterville, for example, witnessed charters in Meath related to the de Feypoe's of Skryne in 1220.[90] From the start, however, the Nettervilles of Dowth were in conflict with their neighbours, both lay and religious. They were first recorded in 1306 in a dispute over cattle stolen from Dowth manor.[91] In 1307, Nicolas de Netterville sued the Prior of Llanthony for the rights to Dowth church.[92] In 1381, the Royal Escheator seized a salmon weir at Dowth which he was obliged to restore to Luke Netterville. The same individual had a confirmatory grant of all his possessions in Dowth in 1409: in 1430, John Netterville, proprietor of Dowth, had a release by letters patent of all crown debts affecting the rents and profits of this manor.[93] The Nettervilles kept a tenacious hold on Dowth into the nineteenth century.

Clear evidence survives of this manor today (fig. 5.8). The parish church (see below) and towerhouse are still upstanding. A sunken road way leads up to these buildings from the modified mound. Traces of cultivation ridges run on a north/south axis across the present field system between Dowth passage tomb and the medieval church. At the northern end of the large field enclosing the manor today, there are remains of old spade-dug cultivation ridges in three irregularly-shaped fields which are earlier than the modern field pattern and, as they are truncated by the road, appear to predate the present Dowth to Newgrange road which was constructed in the eighteenth century when Dowth Demesne was set out. These earthworks appear in a sequence of aerial photographs taken between 1963 and 1969.[94] The fields are defined by earthen banks *c.*2.5m wide and 0.3m to 0.5m high. They are not strip-type enclosures, which one would expect to find associated with a relic medieval three- field system. A field survey further tentatively identified house-sites, paths and gardens.[95]

---

90. E. Hickey, *Skryne and the early Normans* (Dublin, 1994), pp 177-8, 212-3. It has been stated that John Netterville was resident at Dowth in the mid-thirteenth century but historical sources have never been provided to corroborate this statement; T. Sadleir, *Georgian mansions in Ireland* (Dublin, 1915).

91. *Chancery of Judiary Rolls of Ireland* (London, 1914), 33 Edward I, Membrane 17d

92. D'Alton, *Drogheda*, p. 432.

93. *Ibid.*, p. 433.

94. Cambridge University Committee for Aerial Photography AHJ 76-9; AJO 101, 103; AYM 85.

95. Dúchas, SMR file 20:18.

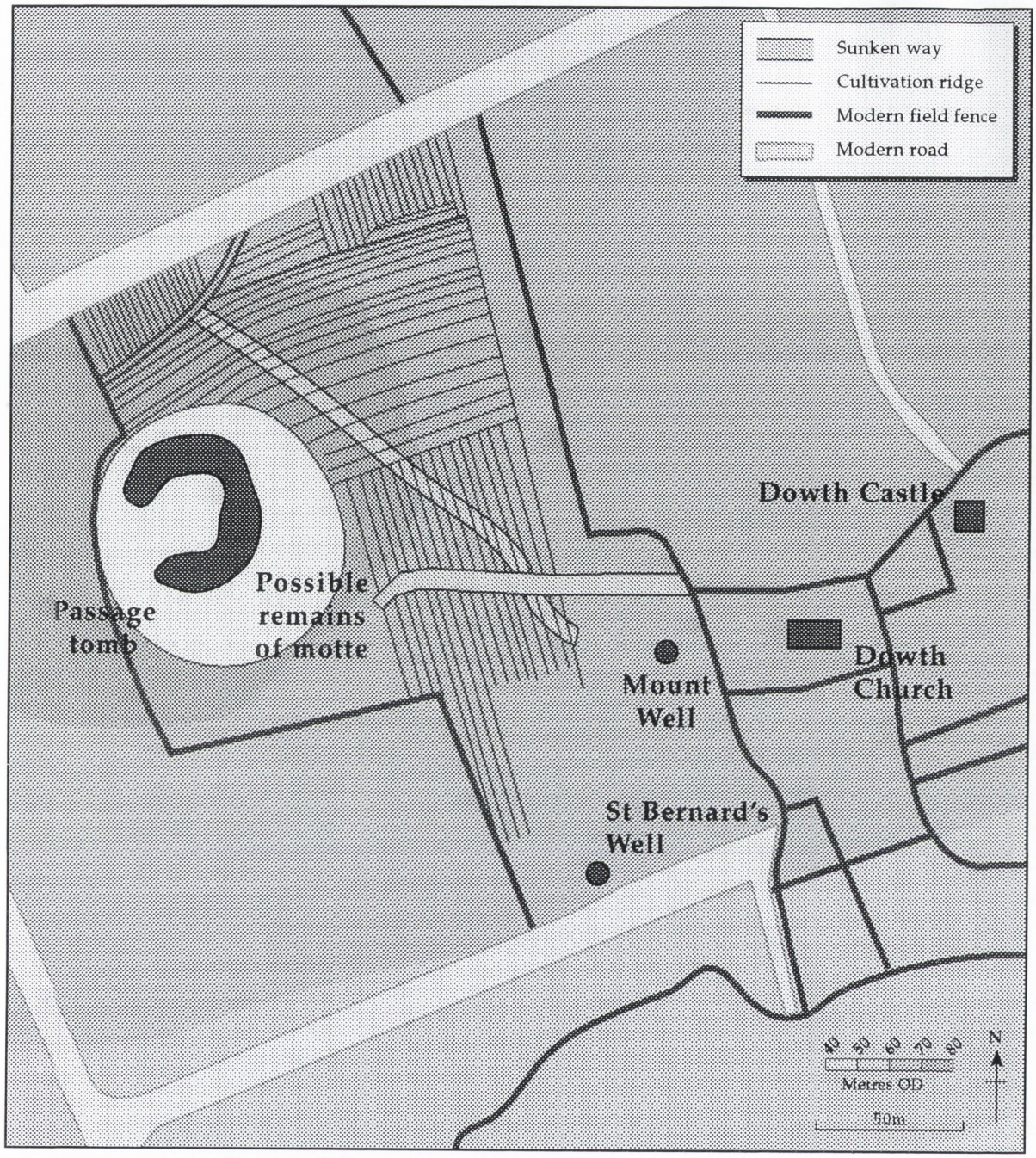


Fig. 5.8 Visible remains of the medieval manor of Dowth (based on aerial photography).

Dowth towerhouse stands in a characteristic location for a Meath example, on a good vantage point above the river. It is one of a defensive line of fortifications that run along the Boyne (fig. 5.6).[96] The original structure was rectangular with a stair turret at its north-east corner, rising to three storeys.[97] The turret contains garderobes on the upper floors; their chute opens out at the base of the turret. Dowth has a vaulted ground floor with a fireplace in its west wall, the only towerhouse in county Meath with a ground floor fireplace. Dowth was extensively modernised in the nineteenth century with brick windows inserted into the walls and two extensions erected against the south-side of the building.

There may have been another towerhouse within this manor on the lands of Proudfootstown. Alan Prutfot was the largest tenant described in the 1253 extent with two carucates, corresponding to the present townland of Proudfootstown. This family were still part of the manor of Dowth and still ensconced in Proudfootstown in the 1650s.[98] Evidence for the towerhouse was mistaken for a round tower when what appears to have been a circular stair turret (a common attribute in examples from Meath and Louth) was blown down in the storm of 1839. Fragmentary remains of the towerhouse were still visible in the 1890s.[99]

5D Augustinian land use

5Di – Historical Background Extensive areas of land were granted by Norman landowners to the various monastic houses established in Meath. Of these Augustinian houses were most numerous. The twin Augustinian priories of Llanthony *prima* (in Monmouthshire) and Llanthony *secunda* (in Gloucestershire) were granted extensive lands around Colpe and Duleek (respectively) on the south side of the Boyne which overlaps with part of the study area. Grants to these orders by the Normans brought about little change in the landholding patterns north of the river as grants in the study area merely confirmed the Mellifont holdings. However, the exception is the parish of Dowth (see below).[100]

The fourteenth-century cartularies of these two priories and their affiliated houses in Ireland contain documents of significant topographical interest including descriptions of the lands held and accounts of buildings in the farms or

96. F. Galway, 'Meath towerhouses' in *Riocht na Midhe*, vii (1985-6), pp 28-200, see p. 81.

97. Moore (comp.), *Meath*, p. 170.

98. W. O'Sullivan, 'Medieval Meath manuscripts' in *Riocht na Midhe*, vii (1985-86), pp 3-21, see pp 5, 17.

99. B. Balfour, 'Round tower at Proudfootstown' in *Journal of the Royal Society of Antiquaries of Ireland*, xxi (1890), pp 247-8.

100. White (ed.), *Extents*.

granges and of the tenants and their services.[101] The Llanthony cell at Duleek had lands in the townlands of Lougher, Donore, Platin and Gilltown which lie within the southern half of the study area and Dowth on the north side (fig. 5.2). The descriptions of the individual properties contained in these cartularies allow landscape details to be extracted which throw light on land use in these areas in the medieval period.

5Dii – Dowth The church of St David at Dowth was established on an earlier monastic foundation (see chapter 4) soon after DeLacy's 1172 grant of the kingdom of Meath. It is mentioned in the cartularies as early as 1202-04, and again in 1220 and in 1280.[102] In 1307 Nicolas De Netterville of Dowth manor (adjoining this church) sued the Prior of Llanthony for the right to Dowth church.[103] This effort must have failed because Dowth remained associated with the Llanthony priory in Gloucestershire until the Reformation.[104] According to an entry in the cartularies for 1317 the Canons of Llanthony near Gloucestershire 'had... from time immemorial, obtained without disturbance the parish church (at Douthe)'[105]. This particular entry describes 'a cottage and a courtyard', and at various other sites cottages and curtilages (courtyards) belonging to 'the glebe of the church... which were built long ago'[106]. These ancillary buildings must have been located south of the present church remains at Dowth in the present townland of Glebe. They also held '18 acres of arable and pasture', presumably located by the Boyne, beside a fishery: 'where there is... various nets designed for catching fish... and there is in the same place a number of weirs.[107] It is referred to again in relation to financial matters in an entry for 1381 indicating that the church was till in use at that time.[108]

The church of St David was situated at the site of the present medieval church remains at Dowth. This monument is more typical of a late fourteenth/early fifteenth century church with its divided nave and chancel, opposing round-headed doorways in the north and south walls, and a double belfry over the west gable. But it also incorporates earlier features such as a pointed window in the

101. E. Brooks (ed.), *The Irish cartularies of Llanthony Prima and Secunda* (Dublin, 1953); E. Brooks, '14th-century monastic estates in Meath' in *Journal of the Royal Society of Antiquaries of Ireland*, lxxxiii (1953), pp 140-9.

102. *Ibid.*, p. 111; *Ibid.*, p. 238

103. D'Alton, *Drogheda*, p. 432.

104. *Ibid.*, p. 433.

105. *Ibid.*, pp 297-8.

106. *Ibid.*, p. 297.

107. *Ibid.*

108. *Ibid.*, pp. 308-310.

nave which may be part of the earlier medieval church referred to in the above entries.[109] A medieval font from the present church is now at the Roman Catholic church at Monknewtown.[110] The cartulary shows that the church at Dowth and its glebeland was a focus for secular settlement and that the people who lived there were actively fishing the Boyne. This single entry supplements an earlier 1253 description of the manorial village of Dowth (5Ciii) (figs 5.2, 5.8).

5Diii – Lougher The Llanthony Priory had a large holding at Lougher, corresponding to the present townland which runs down to the south bank of the Boyne. It is described in a number of entries in the cartularies which allow for a reconstruction of medieval settlement in this area (fig. 5.9). In 1287 the cartularies refers to the:

> Vill of Logher... with all its houses, gardens, curtilages, meadows, pastures, grazing, hedges, rents, gardens, curtilages, potatoes, fish, pastures... all its tenements and liberties.[111]

A central element in this village was the manor-house, described in the cartularies for the year 1317 as a 'fortified manor-house':

> A small hall with an attached chamber, both reserved for the use of the lord, occupied on one side of a single court, on the far side, an impressive gate house was adjoined by the lodgings of the tenant farmer. Within the court space was attached a barn, two pigsties, a dove cote and a house used for baking and brewing.[112]

This layout of buildings is similar to that associated with the grange buildings and associated structures identified at Knowth (see 5Bii). Next to this manorhouse were unfree tenants such as:

> Adam Robyn, a *nativus* [unfree tenant]... who held a cottage with a curtilage [courtyard] and croft and rendered yearly at Christmas and the nativity of St John the Baptist, 12d. by equal portions and a hen at Christmas and if he has more pigs or sows than seven, he shall give for each 2d. and pay from whatever saleable brew he brews two gallons of beer called 'tollbole' and he should reap with the lord, alongside the others, in the autumn when the lord should have anything to reap, receiving 13d. a day.[113]

This passage provides an insight into the life of a medieval tenant and the wide range of farming practices in the Bend of the Boyne during the middle ages.

---

109. O. Davies, I.T.A. Survey, Dúchas, SMR file 20:19; Moore (comp.), *Meath*, p. 134.

110. Roe, *Medieval fonts*, pp 124-5.

111. Brooks (ed.), *Llanthony Prima and Secunda*, p. 231.

112. *Ibid.*, p. 299; This is from Platt's partial translation, see Platt, *Monastic grange*, p. 35.

113. Brooks (ed.), *Llanthony Prima and Secunda*, p. 300; For partial translation see E. Brooks, 'Fourteenth-century monastic estates in Meath' in *Journal of the Royal Society of Antiquaries of Ireland*, lxxxiii (1953), pp 140-9, see p. 146.

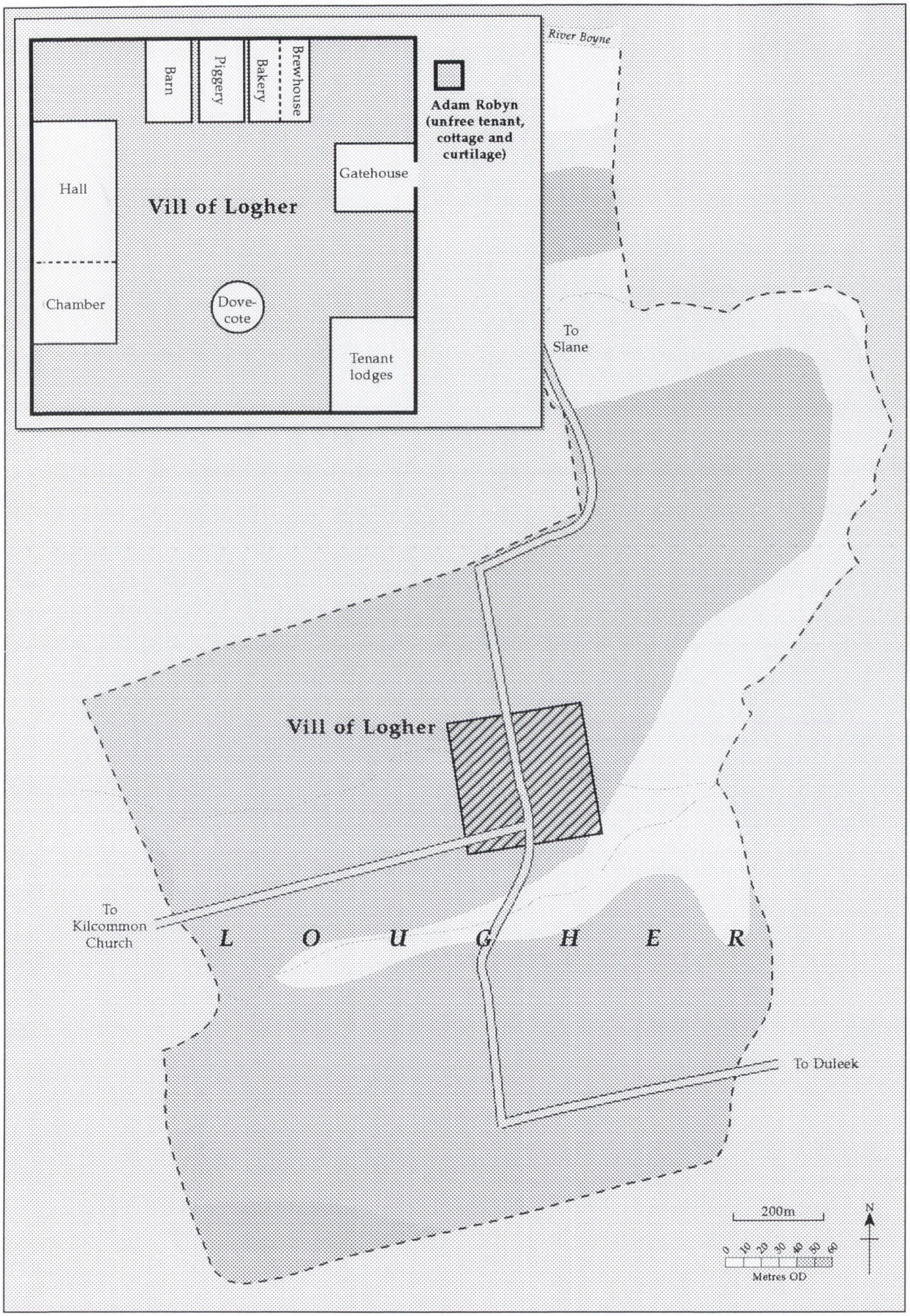


Fig 5.9 A reconstruction of the medieval village of Lougher based on the Cartularies.

No trace of this settlement has been identified. It was probably located on a lane off the road between Duleek and Knockcommon where there is at present an extensive farmhouse and farmyard of eighteenth- nineteenth-century date.

5Div – Donore The Llanthony cell at Colpe had land in Donore. A number of entries in the cartularies provide topographical detail. In 1260 Alice Jambe, the lady of Colpe, gave the monks of Llanthony Prima 38 acres of land in Donore, and this 'lay between the great road to Drogheda and her 'domain'.[114] This entry establishes a thirteenth-century date for this section of roadway.

5Dv – Platin A portion of the townland of *Platyn* (Platin) was included in the estates of Llanthony priory and here the cartularies describe:

> A certain chapel, now decayed... and to this chapel belongs a certain haggard annexed to it in some manner... not occupied because of lack of tenants.[115]

This entry refers to the site of the medieval church at Platin Hall, which lies just outside the south-eastern boundary of the study area.[116] It also probably refers to an earlier church building on the site as there is some evidence for the incorporation of earlier building material in the present remains.[117] Of particular interest here is the fact that churches such as Platin had ancillary buildings attached which were rented to secular tenants.

5Dvi – Gilltown A portion of *Gyllyngeston* (Gilltown) was also attached to the Llanthony Priory but no topographical information is included.[118]

By the close of the fifteenth century, English control over Ireland had been reduced to such an extent that it became necessary to defend a reduced area of greater Dublin over which the English government exercised some control. Initially, this was implemented through a subsidy (in 1429) offered to Norman families to build castles as a defence against Gaelic attacks. This frontier area, incorporating the counties of Louth, Meath, Dublin and Kildare, came to be known as the Pale. The Pale was assigned a boundary by an act of parliament in 1488-9; the Boyne valley lay at the very heart of the Pale. In 1494 a further act of Parliament at Drogheda declared that 'every inhabitant, earth tiller and occupant... do build and make a double ditch of six feet high above the ground at

---

114 Brooks (ed.), *Llanthony Prima and Secunda*, pp 116-7.

115. *Ibid.*, p. 296.

116. Moore (comp.), *Meath*, p. 142.

117. *Ibid.*, p. 142.

118. *Ibid.*, p. 296.

one side or part which mireth next unto Irishmen.[119] The towerhouses at Dowth and Proudfootstown probably date from this turbulent period.

The Cistercian lands also suffered greatly from continuous incursions and reports of 1495 describe total devastation of crops and farm land. The archbishop of Armagh received reports that:

> Certain nobles of the province had invaded... and laid waste, the lands, possessions, fields, farms, mills... crops, trees, plantations, woods, thickets, rabbit warrens, weirs, fisheries and meadows which... belong to the abbot and convent and their monastery and they have even presumed frequently and rashly with their horses... to destroy, waste,... depopulate the fences, the ditches, the cornfields, the grazing fields and the pastures of the said abbot... wickedly committed and attempted against the said abbot and convent and their tenants and vassals.[120]

By 1539 the area under English control had contracted to such an extent that the lands at Mellifont formed the northern boundary of the Pale.

A radical change in colonial policy in Ireland in the sixteenth century resulted in the creation of an English manned and military based administration in Dublin Castle. From 1534 the English sought to regain control of crown land. This was achieved through confiscation of lands, such as the major monastic estate at Mellifont (facilitated by the break with the Roman church), and the placement of regional officers in areas accompanied by a garrison, such as that at Drogheda.

Confiscation and subsequent secularisation of large areas of church property in the Boyne valley was effected under the direction of King Henry VIII and the Reformation in the middle of the sixteenth century. The landed gentry of Meath and Louth passed through a period of religious ambivalence, notably during the period when monastic properties were being distributed with many of the gentry supporting the state religion with consequential benefit to themselves. A predatory class arose from amongst the state officials and army officers dubbed the 'New English' and in 1566 the lands of Mellifont became the property of such an 'English soldier of fortune' Edward Moore.[121] Amongst the considerations for the grant of the lease was that:

> The said house was situate near the borders with Ulster and had been in all times of rebellion in those parts subject to the invasion of the enemy and could not be defended from burning or spoil.[122]

---

119. T. O'Keefe, 'Medieval frontiers and fortifications: the Pale and its evolution' in F. Aalen and K. Whelan (ed.), *Dublin from prehistory to present – studies in honour of J. H. Andrews* (Dublin, 1992), pp 57-77.

120. Colmcille 'Seven documents', pp 57-61.

121. Colmcille, *Mellifont*, p. 198; B. Bradshaw, *The dissolution of the monastic properties of Ireland under Henry VIII* (Cambridge 1974), p. 114.

122. H. O'Sullivan, Northern Motorway environmental impact study, Stamullin to Monasterboice: report on cultural and heritage aspects (unpublished EIS, Louth County Council, no date) pp 12-3.

In the light of events that were to unravel in the subsequent century, it is worth noting the strategic importance of Mellifont and its Boyne valley estate indicated by this remark.

5E Conclusions and conservation statement

5Ei – The Cistercians The names of Cistercians farms have survived as townland names such as Newgrange and Littlegrange; less well known are the considerable physical remains left by the Cistercian monks of Mellifont Abbey in the Bend of the Boyne. At Knowth physical evidence survives for one of their many granges. The monastic churches at Monknewtown and Donore, though ruinous, are still standing and could become the site of information and presentations exploring the wide influence of Cistercian farming in Ireland. Mills continued to be built on the sites originally selected by the monks until the nineteenth-century. Fishing weirs are also present on the same sites at Rossnaree, Staleen and Oldbridge. Fortunately, the ecclesiastical and industrial sites identified with this period are listed in the Record of Monuments for county Meath and county Louth (table 5.3).[123] A number of these are National Monuments and many are described in the *Archaeological Inventories* for the two counties.

Table 5.3
Settlement features in the Bend of the Boyne *c.*1540[124]

Location	Site type	RMP no.
Balfeddock	Cottage	
Balfeddock	Messuages (7)	
Donore	Church	20:11
Donore	Cottage	
Donore	Messuages (2)	
Dowth	Church	20:19
Gilltown	Messuages (3)	
Gilltown	Cottages (6)	
Knowth	Messuages (4)	
Littlegrange	Cottages (2)	
Littlegrange	Messuages (3)	
Monknewtown	Church	19:19
Monknewtown	Cottages (10)	
Monknewtown	Messuages (7)	
Newgrange	Mill (Bowry's)	19:68 04
Newgrange	Weir (Brouny's)	26:20
Oldbridge	Messuages (2)	
Oldbridge	Weir (salmon)	
Rathmullen	Fishery	
Rathmullen	Mill	
Rossnaree	Mill	26:05 02
Rossnaree	Weir and pool(Monketone)	19:68 03
Sheepgrange	Cottage	
Sheepgrange	Messuages (7)	
Staleen	Weir (fishing)	20:28 02/03
Staleen	Mill	20:28 03

123. Dúchas, Record of monuments and places for counties Meath and Louth (Unpublished report, Dublin, 1997).

124. White (ed.), *Extents*.

However, domestic structures from this period have not been precisely identified on the ground. The clusters of messuages and cottages present in every townland adjacent to the monastic chapels need to be located. The difficulty in identifying such features has been acknowledged as a major problem in Ireland where earthwork remains of medieval villages are rare.[125] These sites can only be identified through a programme of research which combines field survey, aerial photography, remote sensing, plough-zone archaeology and excavation.

Evidence for cultivation in the form of ridge and furrow has been dated through excavation at Newgrange to the medieval period. Under suitable conditions, ridge and furrow can still be seen in the fields surrounding the Newgrange tomb. As upstanding evidence for medieval cultivation is scarce in Ireland, a programme of field-survey, such as that undertaken in the Oughterard and Castlewarden area in County Kildare, is needed to identify the extent and likely date for these features.[126] Such work would throw further light on the medieval economy of the Bend of the Boyne.

The story of the Cistercians in the Boyne valley is not told in the Brú na Boinne Visitor Centre. There is, however, a new visitor centre at Mellifont which interprets the abbey buildings and their rich architecture for the public. The interpretative material and guides deal almost exclusively with the art and architecture of the buildings. The exhibition at Mellifont fails to place this impressive building in its wider landscape context and look at the impact of the Cistercian order's vast estates. Mellifont, after all, was the headquarters of the largest landowner in county Meath during the medieval period. The exhibition at Mellifont needs additional interpretative material dealing with the Cistercian granges and their economy. The best preserved example of a grange is at Doe or Hurcle, county Louth. These earthworks are a short walking distance from the abbey. The public should be encouraged to visit them and the outlying monastic chapels at Donore and Monknewtown. A number of old roadways radiate from Mellifont which could be cleared, signposted and a medieval walking trail developed. Knowth is undergoing a programme of restoration and the mound is being grassed over. An important aspect to this restoration could be the presentation of the medieval grange on the top of the mound.

5Eii – The Normans The historical background to the Norman take-over of East Meath (which included the Bend of the Boyne) in the late twelfth century has been outlined, and the early consolidation of Norman power in the area through the construction of earth and timber castles. Along the periphery of the

125. K. O'Conor, *The archaeology of medieval rural settlement in rural Ireland* (Dublin, 1998), p. 44.

126. D. Hall, M. Hennessy and T. O'Keefe, 'Medieval agriculture and settlement in Oughterard and Castlewarden, county Kildare' in *Ir. Geog.*, xviii (1985), pp 16-25;

study area lay the primary motte and baileys at Drogheda, Slane and Duleek and in the intervening territory stood the large passage tomb mounds at Dowth and Knowth, which were ready-made mottes, modified for use as timber castles. Both Knowth and Dowth are protected as National Monuments. Knowth's use as a Norman castle for a brief period of its long history is communicated to the public and illustrated with an on-site illustrative panel. Bizarrely, the information plaque at the Millmount in Drogheda refers not to its obvious history as a motte and bailey but to its dubious origins as a burial mound. Such misinformation, however romantic, is inadequate and must be weeded out.

Table 5.4
Norman sites in the Bend of the Boyne

Location	Site type	RMP no.
Dowth	Towerhouse	20:26
Dowth	Weir site	20:28
Knowth	Motte	19:69
Proudfootstown	Towerhouse site	20:001

The recent purchase of Dowth by the Heritage Services includes Dowth tumulus which has possible traces of the medieval motte on its summit, the medieval field system, part of the medieval manorial village site, part of the boundary wall of the medieval parish church, and a right of way into the church. The designated area regrettably does not include the medieval church itself or the towerhouse of Dowth which formed the core of the manorial village. This should be rectified. Any future interpretative programme should present the medieval story of Dowth to the public. This could highlight the initial re-use of Dowth tumulus as an earthwork castle and the later development of a manorial village on the site. This is a very important site. It is the only Norman manorial village in the Bend of the Boyne which was *not* held by the Cistercians or Augustinians. Its initial foundation has been recorded in the historical sources and a mid-thirteenth century description of the manor exists which well describes its features. Well preserved remains of the medieval manor survive on the ground today, a rarity in Ireland. Norman sites outside the designated area of the National Monument, (the medieval church at Dowth, Dowth towerhouse and the site of Proudfootstown Castle) are included in the Record of Monuments and Places, but this legal protection does not result in active maintenance of the monuments.

5Eiii – Augustinian settlements Two well documented Augustinian settlements have been identified within the study area; the medieval church at Dowth on the north side of the Boyne and Lougher on the south side of the river. The high status of the settlement at Lougher is indicated by the historical sources. No archaeological remains have been identified in Lougher to date, and there are no

archaeological planning constraints placed on any part of this townland, including the farm buildings which may be on the site of the former settlement. In regard to the church at Dowth, the sources indicate that it was the focus for an extensive secular medieval settlement which extended to its glebeland and southwards to the bank of the Boyne. The present archaeological constraint at Dowth needs to be extended to include the townland of Glebe and the field that runs south to the river.

CHAPTER 6
THE BEND OF THE BOYNE IN THE SEVENTEENTH CENTURY

6A Landscape and population

6Ai - Introduction From the time of dissolution to the final conquest of Ulster in 1609, the English government regained control over the island of Ireland. Plantation was part of this process, and throughout the seventeenth century, land was transferred into the hands of an immigrant and Protestant landlord class.[1] Within the Pale, however, confiscation was not as pronounced; a high percentage of Old English remained in the south Louth/east Meath region.[2] Where expropriation occurred, it was related to the seizure of monastic land rather than the expulsion of an indigenous land-owning class. There was also a remarkable degree of continuity, exemplified in the Boyne valley by the survival of the Nettervilles of Dowth and other 'Irish Papists' who retained their lands throughout the turbulent seventeenth century. Nonetheless, changes in land ownership elsewhere in Ireland gave rise to an unprecedented upsurge in mapping enterprises and accompanying surveys. The Boyne valley was included in this recording process and the seventeenth-century surveys provide a baseline for studies of the modern landscape within the study area. The Civil Survey (6Aii) and Down Survey maps (6Aiii) of 1654, and the Census of 1659 (6Aiv) are discussed below.

6Aii – The Civil Survey Following the success of the Cromwellian campaign (see below), the Civil Survey was undertaken to obtain accurate information on the location and contents of the confiscated lands. In 1642 the English parliament had passed the 'Adventurers Act', inviting Englishmen to contribute money towards the cost of conquering Ireland. In return, they were guaranteed land in Ireland at the end of the war. The intention was to provide allotments of Irish land to pay officers, soldiers and those who invested in the war of the Commonwealth government. The survey was by inquisition, and was termed the Civil Survey because it was made under the jurisdiction of special courts called Courts of Survey and concerned the civil authorities. These courts were to find out and record the possessions of landowners and the tenure and titles of their estates. A survey founded on authentic information of the old inhabitants was directed to be made.[3]

The Civil Survey for County Meath opens with a description of barony boundaries based on actual perambulation by the jurors. It provides information on

1. G. Stout and M. Stout, 'Early landscapes: from prehistory to plantation' in F. Aalen, K. Whelan and M. Stout (ed.), *Atlas of the Irish rural landscape* (Cork, 1997), pp 31-63, see p. 62.

2. In 1660, over 40% of families had Old English names in this region; W. Smyth, 'Society and settlement in seventeenth-century Ireland: the evidence of the '1659 Census' in W. Smyth and K. Whelan (ed.), *Common ground: essays on the historical geography of Ireland* (Cork, 1988), pp 55-83, see p. 61, fig. 4.2.

3. W. Nolan, *Tracing the past: sources for local studies in the Republic of Ireland* (Dublin, 1982), pp 50-3.

proprietorial geography, settlement, land quality and valuation.[4] The subdivision of the barony into parishes and the division of the parishes into townships or villages localised the data which is so important for historical geographical research. From an administrative viewpoint, the lands on the north side of the river lay in the barony of Slane and civil parishes of Monknewtown and Dowth; south of the river the lands lay within the barony of Duleek and parishes of Donore, Duleek, Duleek Abbey and Knockcommon (fig. 6.1). The largest owners were Lord Moore, who held the lands formerly belonging to Mellifont; Lord Netterville who held most of the parish of Dowth; Stephen Cormacke of Cruicerath; Nicholas Darcy of Platin; Peter Hussey who partly held Corballis and Clonlusk; John Draycott of Mornington and Roughgrange; and at Lougher, Robert Allen 'of St Wolstans'. Thus the land in our study area in the middle of the seventeenth-century was held by just eight landowners; all, with the exception of Lord Moore, were termed 'Irish papists'.

The lands in the barony of Duleek are described as 'generally good and profitable being arable, meadow and pasture'.[5] The barony of Slane is said to be 'in general arable, having meadow and pasture, being good and profitable land'.[6] In the middle of the seventeenth-century, the Bend of the Boyne community practised a largely tillage economy with 73% arable (land capable of producing good tillage crops rather than actual land in tillage at that time), 22% pasture, 3% meadow, and 2% under bog, mountain or woodland (table 6.1). In the seventeenth-century, the Boyne valley was part of a great corn-growing area that stretched from north county Dublin to south Louth.[7] It was also an important corn-milling region as indicated by the concentration of mills in the valley recorded in the Civil Survey There were eight mills in the study area in 1654 compared to just 3 mills in 1540. There were also many tuck mills in the valley (one within the study area) which shows that sheep and wool trade, initiated by the Cistercians, continued to make a significant contribution to the local economy.

The chief settlements identified by the Civil Survey were minor nucleations around the large stone houses of Oldbridge and Sheephouse, adjacent to Donore church and Platin Castle (fig. 6.1). This is a radically different picture from the one recorded just a century earlier (fig. 5.2). The change of ownership from Cistercian to secular entrepreneurs initiated a centrifugal process which resulted in the virtual disappearance of Monknewtown, Sheephouse and Balfeddock villages. The minor

4. R. Simington, *The Civil Survey: county of Meath*, v (Dublin, 1940).

5. *Ibid.*, p. 2.

6. *Ibid.*, p. 342.

7. W. Smyth, 'Exploring the social and cultural geographies of sixteenth and seventeenth-century county Dublin' in F. Aalen and K. Whelan (ed.), *Dublin from prehistory to present – studies in honour of J. H. Andrews* (Dublin, 1992), pp 121-79, see p. 126.

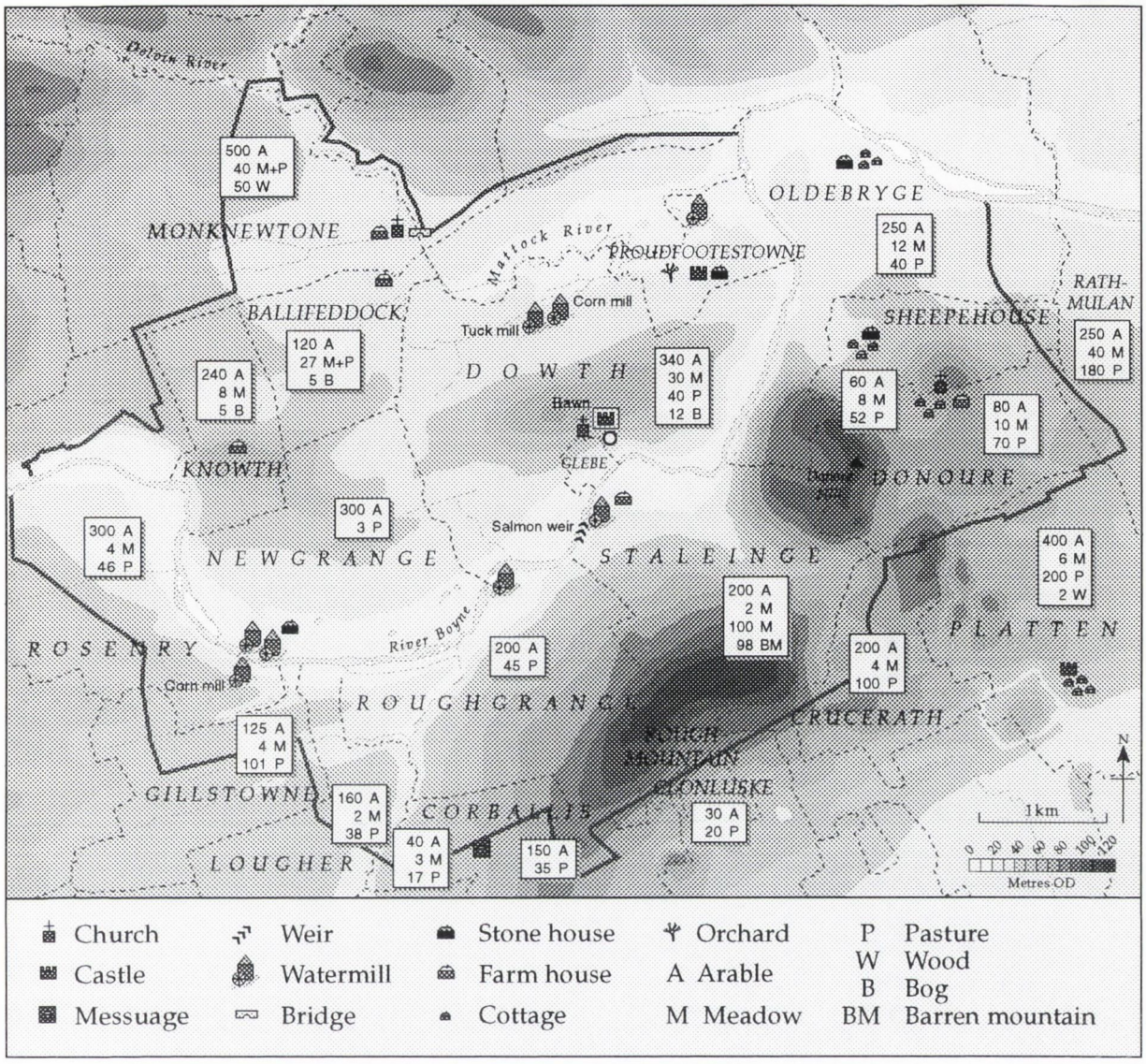


Fig. 6.1 Land and settlement in the Bend of the Boyne based on the Civil Survey 1654.

Table 6.1
Agricultural statistics for the Bend of the Boyne 1654[8]

Townland	Arable	Pasture	Meadow	Other
Balfeddock	227	5 (and meadow)	-	10 (bog)
Clonlusk	-	2	30	-
Corballis (part of)	40	17	3	-
Cruicerath	200	100	4	-
Donore	80	70	10	-
Dowth	340	60	30	12 (bog)
Gilltown	125	101	4	-
Glebe	-	5	-	-
Knowth	240	0	8	5 (bog)
Lougher	160	38	2	-
Littlegrange	48	12	2	-
Monknewtown	500	40 (and meadow)	-	50 (wood)
Newgrange	300	3	-	-
Oldbridge	250	40	12	-
Platin	400	200	2	2 (wood)
Proudfootstown	100	20	12	-
Rathmullen	250	180	40	-
Rossnaree	300	46	4	-
Roughgrange	200	45	-	-
Sheephouse	60	54	8	-
Staleen (including Redmountain)	200	100	2	48 (mountain)
Total	**3685 (73%)**	**1148 (22%)**	**171 (3%)**	**127 (2%)**

settlements of Rossnaree and Gilltown disappeared between 1540 and 1645. The dispersed settlement form clearly has its origins in the seventeenth century.

Although the settlement hierarchy indicated in the earlier sixteenth-century documents is still in evidence – with castles and their outhouses, stone houses, farm houses and cabins (fig. 6.1) – the number of dwellings mentioned in the Civil Survey is much lower than that in the earlier medieval extents. They fell from 61 to 14, a reduction of 77%. This may suggest that Lord Moore deliberately removed a large number of tenants on taking over the Mellifont estate. In the mid-seventeenth-century, the Boyne valley had a more a dispersed character of settlement which is in stark contrast to the numerous small villages described in the extents. However, the mills and weirs formerly developed by the Cistercian monks continued in use.

The Civil Survey contains the first detailed description since the fourteenth century of the parish of Dowth which incorporates the townlands of Dowth and Proudfootstown; these had been outside the Mellifont estates.[9] The manor of Dowth contained one ploughland and a half, calculated at 442 acres incorporating 340 arable, 30 meadow, 60 pasture and 12 bog. At Dowth a manorial village still focused around a castle with a bawn and a church. Around the village centre is a stone house, a stable and outhouses. There is also a farmhouse, malthouse, cornmill, tuck mill, a pigeon house and one salmon weir in the river Boyne.

8. Simington, *Civil Survey: Meath.*

9. *Ibid.*, p. 351.

6Aiii – The Down Survey Maps The mapping project which came to be known as the Down Survey was the most complete survey of Ireland prior to that of the Ordnance Survey in the mid-nineteenth century. It was established at the end of 1654 when William Petty undertook to 'admeasure all the forfeited lands' of Ireland.[10] Because this enterprise was an aspect of plantation and confiscation, less attention was paid to lands which were not to be transferred. Consequently, areas within the Pale are not so thoroughly mapped and much of the study area was not mapped in detail.

Some landscape detail is included on the Down Survey map of the Barony of Slane. The sketch of the towerhouse at Dowth depicts a substantial building with a surrounding bawn. It also shows the two mills on the river Mattock at Dowth and two houses are indicated at Proudfootstown, which according to the Civil Survey, contained a castle, stone house, an orchard and corn mill.[11] For the area south of the Boyne, the Duleek parish map shows a building by the river at Roughgrange, and turretted buildings at Lougher and Platin (fig. 6.2a). The Duleek barony map shows a river crossing between Slane and Rossnaree. This corresponds with the location of the crossing chosen by Schomberg in the Battle of the Boyne as depicted on Story's drawing of the battle (see below).

6Aiv – The 'Census' of 1660 This census is an abstract of the poll-tax returns of 1660. It provides details of the population within each townland; the number of families, the principal person of standing in the locality and whether those enumerated were 'English' or 'Irish'.[12] The distribution of Old English as a percentage of the principal Irish names listed in the Census shows a high concentration within the Bend of the Boyne (fig. 6.3A).[13] This is testimony to the continuity of population from the medieval period. The picture is incomplete, however, because the records for the barony of Slane – most of the core area – do not survive. Of those places listed, ninety per cent are described as being Irish. Oldbridge was the most populous townland at this time (table 6.2, fig. 6.3B).[14] The first mention of Roughgrange is included in this source and on the Down Survey maps.

---

10. Nolan, *Tracing the past*, pp 53-5.

11. Simington, *Civil Survey: Meath.*

12. Smyth, 'Evidence of the '1659 Census', p. 56.

13. *Ibid.*, p. 61, fig. 4.2.

14. S. Pender (ed.), *A census of Ireland* circa *1659, with supplementary material from the poll money ordinances (1660-1661)* (Dublin, 1939) pp 471, 480.

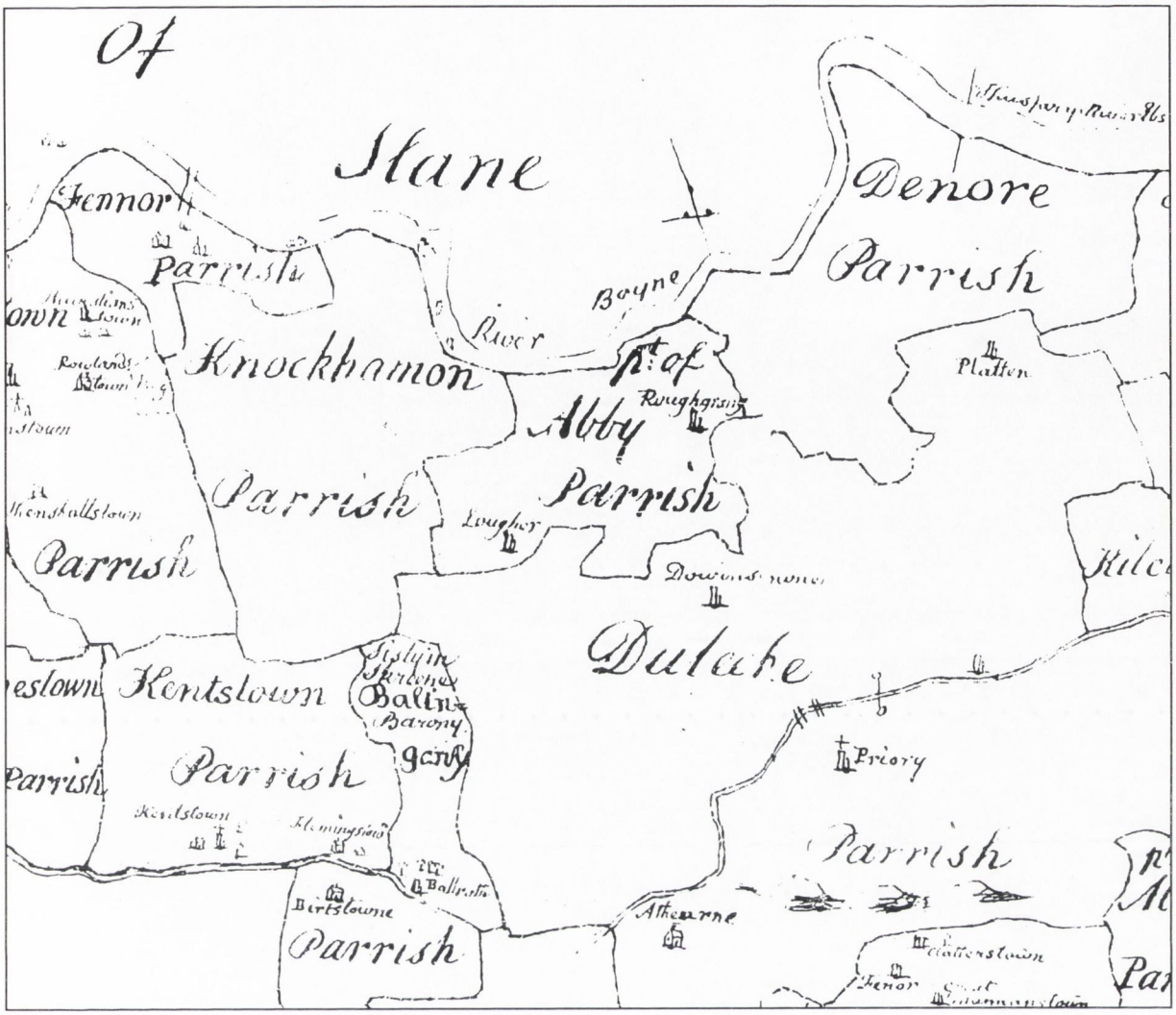


Fig. 6.2 Detail from Down Survey map of Duleek barony.

Table 6.2a
Population from the Census of Ireland 1660

Townland		English	Irish	Total
Corballis	Corballyes	0	12	12
Cruicerath	Crusrath	0	23	23
Gilltown	Gilltown	6	15	21
Lougher	Lucher	0	18	18
Littlegrange	Litle Grainge	2	24	6
Newgrange	Ould Bridy	6	61	67
Rathmullen	Ramulan	3	48	51
Rossnaree	Resneree	6	21	27
Roughgrange	Rough Grang	6	18	24
Sheephouse	Sheepe house	5	28	33
Staleen	Staling	0	54	54
Total	**11 Townland**	**34 (10.1%)**	**302 (89.9%)**	**336**

6B The military landscape

6Bi – Introduction The seventeenth century was a turbulent one in the history of the valley. Major military conflicts of national and international significance took place here beginning with the rebellion in 1641, continuing in Cromwell's campaign at Drogheda in 1649, and culminating in the Battle of the Boyne in 1690. These events highlight the strategic importance of the Boyne on the northern approaches to Dublin in the post-medieval period. Contemporary documentation of these military events allows intermittent glimpses of the valley, its landscape and its people. Though the evidence, by its very nature, is disjointed and the angle at times obtuse, it is possible to gain an impression of the countryside and to identify features and landmarks which are still in evidence. These features form a component of the Boyne landscape and provide a tangible record of a turbulent and formative period.

This section is divided into two parts: the Confederacy Wars 1641-1649 (6Bii) and the Battle of the Boyne 1690 (6Biii). Both sections provide a broad outline of the history of events and their significance for the Boyne valley, emphasising their impact on the landscape and the light they throw on the nature of contemporary land use. Finally, a conservation statement is made on the post-medieval components of the landscape and conservation priorities are identified for specific features associated with this period of its history (6C). To illustrate the way in which the Boyne battlefield site could be presented to the public, the comparative experience in the management and interpretation of the Battle of the Little Bighorn site, Montana, USA is analysed (6D).

6Bii – The Confederacy Wars 1641-1649 In this post-Dissolution era, there still existed in Ireland a large and influential landed group, Norman by descent and Catholic in religion who are generally referred to as the 'Old English'. They retained one-third of the country's land, were loyal to the English crown, but no longer controlled the government of Ireland. With growing fears of becoming marginalised,

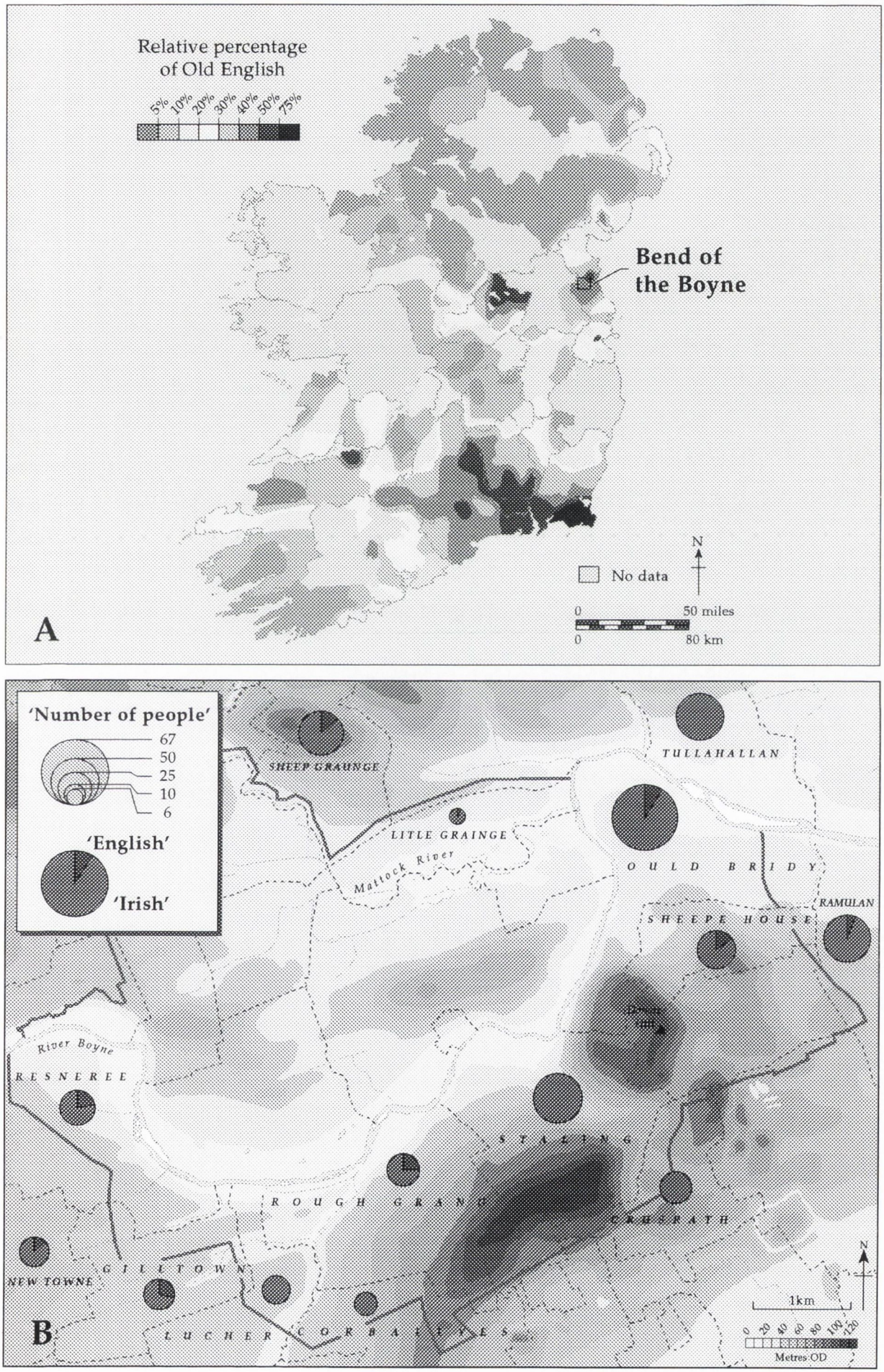


Fig. 6.3A Old English names predominate (over 40%) among those recorded as being Irish in Census returns. Fig. 6.3B Irish (which include Old English) comprise 90% of the area's poplulation.

the Old English could not safely continue to enjoy their property and their freedom of worship unless they could establish firmly their right to use the Irish parliament to protect them against English government policies. This prompted some of the Irish, particularly in Ulster in 1641, to consider an armed rising. Their plan was to seize Dublin Castle, to capture the principal members of the government and to take possession of the chief strongholds in Ulster in a series of local uprisings.[15] The Old English landowners of the Pale and their Ulster counterparts formed a loose alliance. The Pale nobility played a crucial role in the initial stages of the 1641 uprising and the subsequent development of confederate government structure.[16]

The lower Boyne valley and Drogheda, a garrison town, provided the backdrop for a critical stage in the rebellion of 1641 and again demonstrated the strategic significance of the Boyne river as a gateway to Dublin from Ulster. The securing of Drogheda and the Boyne by the loyalists in 1641 was important because it was essential to the protection of Dublin and the maintenance of communication with the north. Conversely, for the rebels the control of Drogheda opened the approach to Dublin and provided the surest prospect of success.[17] In the early stages of the rebellion, the Ulster rebels met with only local resistance; it was not until they found themselves in control of most of Ulster and marched into Louth and Meath that they had their first engagement with government troops.[18] The rebel army was encouraged by a victory over the government troops at Julianstown bridge in late November of 1641 and the 'Old English' of the whole of county of Louth annexed with the rebels (fig. 6.4A-C).[19]

A major confrontation followed in Drogheda between the Ulster rebel army and the loyalist defenders, supported by a number of disaffected Old English families in the area, including the Darcys and the Nettervilles. A 1641 deposition by Richard Streete refers to a garrison in Darcy's house in Platin and refers to a meeting with Lord Netterville of Dowth which took place in a 'room in the castle'.[20] The depositions detail the input of the local land owners in the rebellion. Nicholas Darcy was appointed to the 'Council of War', while Lords Slane and Gormanstown were 'local captains' over the baronies of Slane and Duleek (respectively). Their job was to

---

15. A. Clarke, 'The colonisation of Ulster and the rebellion of 1641' in T. Moody and F. Martin (ed.) *The course of Irish history* (Cork, 1967), pp 189-203, see p. 198-9.

16. M. Ó Siochrú, *Confederate Ireland 1642-1649: a constitutional and political analysis* (Dublin, 1999), p. 225.

17. J. D'Alton, *The history of Drogheda with its environs and an introductory memoir of the Dublin and Drogheda railway*, ii (1844), p.224.

18. Clarke, 'Colonisation of Ulster', pp 189-98.

19. H. O'Sullivan, Northern Motorway environmental impact study, Stamullin to Monasterboice: report on cultural and heritage aspects (unpublished EIS, Louth County Council, no date) pp 12-3.

20. Depositions of 1641, Examination of Richard Streete, TCD Ms. 816.F.2.9, pp 24-5. The depositions by witnesses of these events of 1641 pinpoint a number of properties in the Lower Boyne valley where events in the rising took place. These depositions provide vivid accounts of 'treacheries' on the part of the rebels and their supporters among old established families in the Bend of the Boyne. Topographical information is dissapointingly slight.

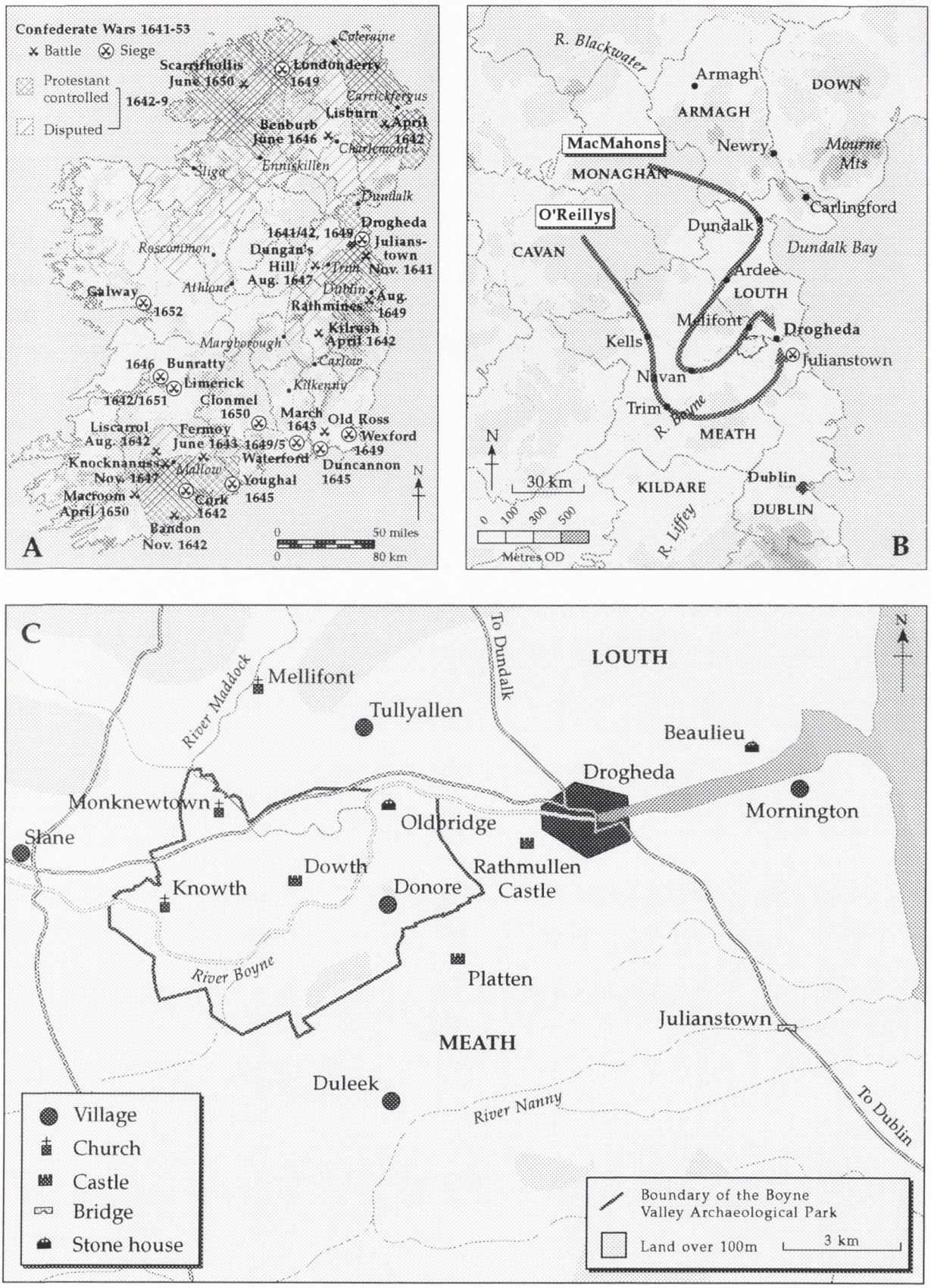


Fig. 6.4A The confederate wars, 1641-1653. The Bend of the Boyne was disputed territory during this period (after Ó Siochrú, 1999). Fig. 6.4B Confederate forces swept through the lower Boyne valley in their advance on Drogheda. Fig. 6.4C Places in the lower Boyne valley involved in the 1641 rebellion and subsequent events.

raise horsemen for the defence of the area.[21] Darcy was in constant touch with the leaders of the rebellion throughout the period of the siege.[22]

The sequence of events in the siege of Drogheda were as follows. After their victory at Julianstown, the rebels encircled the town. Sir Phelim O'Neill, leader of the rebels, established his headquarters at Plunket's castle in Beaulieu, and his detachments also occupied the castle of Rathmullen, Mornington, a stone house at Oldbridge, Tullyallen and Ballymakenny.[23] For four months rebel energies were concentrated on the siege and the creation of effective military units. Three attacks on the walls of Drogheda resulted in two breaches but none succeeded in taking the town. Drogheda was effectively cut off until February when a small fleet of vessels containing supplies entered the town. The degree to which local land owners supported the insurrection is highlighted in another 1641 deposition. Lady Netterville of Dowth refused to allow the grazing of cows belonging to those besieged in Drogheda on the lands of Netterville manor. The allegation was that Lord and Lady Netterville were associated with efforts to starve the defenders of Drogheda.[24]

Finally, in March 1642 the Boyne froze over, removing a barrier placed in the river by the rebels to block any supply boats getting to the townsfolk. Drogheda had survived the siege. The rebels retreated to fight a rearguard action at Ardee, aware of the approach of Crown troops with the earl of Ormond. They fled northwards towards Dundalk, abandoning the local Old English land owners. Lord Moore had remained loyal to the crown and successfully defended his estate at Tullyallen.

In the aftermath of the siege (5 March 1642), Moore, Lord of Mellifont, led out 400 foot and 80 horse from his own estates and defeated the rebels in the area.[25] On 13 March, Lord Ormond was prohibited from passing the Boyne with loyal forces.[26] Confined, therefore, to the lower Boyne valley, he marched to Slane, burning the town and many of the surrounding villages to strike terror into the Irish.[27] Ormond furnished Sir Henry Tichbourne, commander of the crown troops, with two pieces of cannon, two troops of horse and four companies of foot soldiers. Tichbourne then attacked Platin Castle, which ultimately surrendered on terms that the garrison might depart unharmed.[28] This stage of the campaign resulted in devastating

---

21. TCD Ms. 816.F.2r; Bríd McGrath, 'County Meath from the Depositions' in *Riocht na Midhe*, ix (1994-5), pp 24-41, see p. 30;

22. *Ibid.*, pp 32-2

23. D'Alton, *Drogheda*, pp 230-2.

24. Depositions 1641, Examination of Thomas Charles, TCD Ms. 816.F.2.9, pp189-90.

25. D'Alton, *Drogheda*, p. 246.

26. *Ibid.*, p. 251; J. Gilbert, *History of the Irish Confederation and the war in Ireland* (Dublin, 1882), p. 51.

27 N. Barnard, *The whole proceedings of the siege of Drogheda* (London, 1642), p. 71.

28. J. Gilbert, *A contemporary hsitory of affairs in Ireland from 1641-1652, vol. ii, part ii* (Dublin, 1980), p. 248.

damage to church property. Bishop Dopping's later visitations to the churches in County Meath in 1682-1685 note that the church and chancel in Slane was down since 1641 and that Dowth church was also ruined. At Knockcommon the church and chancel walls were standing but out of repair since 1641. The church at Knowth was also ruined, and the chapel at Monknewtown out of repair.[29]

On 16 April 1642 the Old English supporting the 1641 uprising were identified as Nicholas Darcy of Platin, Lord Viscount Netterville of Dowth and Richard Porter of Oldbridge.[30] Nicholas Darcy's estate at Platin was confiscated but was later restored.[31] The tenacious Netterville family remained active against the crown and were involved in the Catholic Confederation which convened in Kilkenny in 1642 to establish a provisional government.[32] The Cromwellian Settlement would ultimately lead to the dispossession of the Nettervilles. However, under the Act of Explanation of 1665, the core of the estate at Dowth and Proudfootstown was returned and survived in Netterville hands into the nineteenth-century. At Beaulieu, the Plunket castle used as a camp by Sir Phelim O'Neill was removed and a fine house built on the site by the family of Sir Henry Tichburne who commanded the troops that captured the estate in 1642.[33]

War continued unabated for another seven years until the arrival of Oliver Cromwell in 1649 and his decisive conquest of Ireland. Cromwell's campaign in Ireland was an extension of the English civil war between parliament and the royalists who supported Charles II. In Ireland, this support was organised by the Marquis of Ormond who, in 1649, succeeded in making terms with the Confederate Catholics. Again Cromwell identified the Boyne and Drogheda town as his passport to the northern portion of Ireland and the securing of Dublin's northern approaches.[34] For operations against Drogheda, Cromwell used eight infantry regiments, six cavalry regiments, plus some troops and dragoons (infantry on horseback) totalling *c.*10.000-12,000 men and eight field guns. Drogheda was treated with particular severity and the atrocities suffered by the townspeople are well documented.[35]

---

28. D'Alton, *Drogheda*, p. 247.

29. C. Ellison, 'Bishop Dopping's Visitation Book 1682-1685' in *Riocht na Midhe*, iv (1971), pp 28-39, see p. 36; C. Ellison, 'Bishop Doppings Visitation Book 1682-1685' in *Riocht na Midhe*, v (1973), pp 2-11, Slane, p. 4; Dowth, p. 5; Knowth, p. 6; Monknewtown, p. 7.

30. D'Alton, *Drogheda*, p. 254.

31 S. Barnwall, 'Darcys of Plattin, county Meath' in *Ir. Geneal.*, vi (1983), pp 419-22.

32. L. Arnold, *The Restoration land settlement in county Dublin, 1660-1688: a history of the administration of the acts of settlement and explanation* (Dublin, 1993), p. 28; Ó Siochrú, *Confederate Ireland*, pp.222-5.

33. C. Casey and A. Rowan, *The buildings of Ireland: north Leinster* (London, 1993), pp 154-6.

34. D. Murphy, *Cromwell in Ireland: a history of Cromwell's Irish campaign* (Dublin, 1883), p. 84.

35. J. Simms, 'Cromwell at Drogheda' in *Irish Sword*, xi (1974) pp 212-21; T. Reilly, *Cromwell at Drogheda* (Drogheda 1993).

Oliver Cromwell's campaign was concentrated in the immediate environs of Drogheda and had little impact on the settlements further up river in the Bend of the Boyne area. There had been some attempts at crossing the Boyne further west of the town at Oldbridge and Drybridge. On 3 September news was brought to Sir Arthur Aston, governor of Drogheda, that 500 of the enemy's horse was drawing towards the ford of Oldbridge.[36] Two days later Aston reported to Ormond that a party of Cromwell's men had crossed the Boyne at a ford near the town at low tide on the previous day but had been driven back down Drybridge Hill to the river. They had little success up to the time the town was stormed.[37] Prior to Cromwell's arrival in Drogheda, some effort was made to destroy strongholds in the vicinity which could be used against them. Aston reported to Ormonde that he had being demolishing or burning castles in the area including Gormanstown (on the Delvin River), Ballygarth, Dardistown and Athcarne (along the Nanny River). He also describes Platin Castle as 'a strong place which had no water in it'; meaning that it either had no moat surrounding it or that the castle lacked a source of water for withstanding a siege.[38] On 5 September Aston reported that Cromwell's men had in fact re-possessed these castles.[39]

6Biii – Landscape and the Battle of the Boyne 1690 The Glorious Revolution of 1688 in England deposed James II, the last Catholic English King, and replaced him with his daughter Mary and her Dutch husband William III, the Protestant Prince of Orange and ruler of the Dutch Republic.[40] In February 1689, William and Mary were crowned joint monarchs of the three kingdoms. Although William controlled England, he had not brought Ireland and Scotland under his sway. As a ploy to distract William who had been involved in a war with France, Louis XIV decided to back James II in a war against William in Ireland and thus keep him out of Europe. This war was to decide both international and Irish issues and had been going on for a year before the Battle of the Boyne. By the spring of 1690, William was determined to break the deadlock in Ireland and re-direct his resources to the European campaign against Louis XIV. By that time James had secured his position in the three southern provinces but had failed to take Ulster. If James wished to hold Dublin, he had to make the Boyne his line of defence, described in contemporary terms as the

---

36. Gilbert, *Affairs in Ireland:*, pp 248-49; Murphy, *Cromwell*, p. 91.
37. Gilbert, *Affairs in Ireland*, pp 250-1; Simms, 'Cromwell at Drogheda', pp 212-21.
38. Gilbert, *Affairs in Ireland*, pp 247-8.
39. *Ibid.*, p. 250.
40. J. Hyland, 'The battle of the Boyne' in *Command Magazine*, xliii (1997), pp 30-46.

'old Rubicon of the Pale'.[41] The Boyne offered the last significant natural barrier before Dublin and a formidable line of defence.

In the summer of 1690, this major conflict decided the destiny of the crowns of England, Ireland and Scotland. Around 60,000 men, in two multinational armies, met at the Boyne. James' army of 25,000 included mainly Irish and French, but also Germans, Walloons and British Jacobite exiles. William's 35,000 troops included principally British and Dutch, but also Danes, French Huguenots, Germans, Irish Protestants, Latvians, Poles, Swedes and Swiss. With an outflanking movement led by the Duke of Schomberg upstream at Rossnaree and a frontal attack at Oldbridge on 1 July 1690, King William of Orange defeated James II, and strengthened his hold on the English throne.

For the purposes of this study, the most relevant aspect of accounts and illustrations of the Battle of the Boyne is their insight into the terrain over which it was fought.[42] The core area of operations extended from Drogheda to Slane and south to Duleek; the position of bridges across the Boyne at Drogheda and Slane and fords at Oldbridge, Staleen and Rossnaree, largely determined its extent (figs 6.5, 6.6). By following the stages of the battle on the ground, we can look at the local terrain with the eye of a military strategist, identifying the high ground, fords and passes which provided natural defence and military advantage. The fighting was largely confined to the area of Oldbridge, the first fordable point of the Boyne above Drogheda, where the deep river banks made the task of defence easy. The defending Jacobite army had local cover to the river's edge with good defensive terrain back to Donore hill. The buildings at Oldbridge and the fences and ridges on the hillside provided excellent cover; the gradual slopes of the valley were ideal for cavalry charges. The Roughgrange/Donore hill area screened observations from the north for the full extent of its length. Yet the position was vulnerable: the bend in the Boyne meant that troops at Oldbridge were positioned in a loop of the river and were in danger of being outflanked, which is in fact what happened. In contrast, King William's Glen in the north was the only place where there could be concealment for the Williamite forces.[43] The high ground of Tullyallen could be seen from the south bank of the river and from Drogheda town.

The area of operations of the battlefield largely coincides with the area of the present study. The historical sources provide considerable topographical information on which a reconstruction of the seventeenth-century landscape in the

---

41. J. Simms, *A Jacobite narrative of the war in Ireland: 1688-1691* (Shannon, 1971), p.98. The term 'rubicon' is defined in the Oxford dictionary as a pass or cross; to take the step that commits one to an undertaking. It was the boundary stream of ancient Italy crossed by Hannibal in his famous traverse of the Alps, and represented the point of no return.

42. D. O'Carroll, 'An indifferent good post: the battlefield of the Boyne' in *Irish Sword*, xviii (1992), pp 49-56, see p, 49.

43. *Ibid.*.

Bend of the Boyne can be based. The sources also allow the identification of present landmarks associated with this famous battle. By extracting topographical detail from eyewitness accounts of the battle contained in letters, diaries, secondary sources and local traditions, combined with contemporary prints and maps of the battle and excavation evidence, an attempt can be made to reconstruct the entire landscape at the time of the battle (figs 6.5 – 6.11). Contemporary prints of the Boyne battle are few and unreliable, largely products of the Dutch market for domestic sale in the Netherlands.[44] One of the few contemporary engravings of the battle to appear in England was by Dutch military artist, Theodor Maes (or Maas).[45] William invited him to Ireland to cover the campaign. One other sketch survives from his time in Ireland' (figs 6.7, 6.8).[46] This drawing represents infantry crossing the river below Oldbridge with Donore hill in the distance; a cornfield can be seen in the middle distance. A large number of canvasses survive purporting to depict the Boyne, the majority by a Dutch contemporary of Maas, Jan Wyck (fig. 6.9). Born in Haarlem, he followed the exploits of the Prince of Orange. When William went to Ireland, it is unlikely that Wyck accompanied him; Wyck probably copied detail from Maas.[47] Romeyn De Hooge, an artist and engraver born in Amsterdam in 1645, produced, at the end of 1690, a close up view of the fighting at Oldbridge showing the mortal wounding of Dr. George Walker (fig. 6.10).[48] Amongst the many accounts of the Battle of the Boyne, George Story's *Impartial History* (1693) is particularly enlightening, with its accompanying topographical maps of the battlefield and the surrounding countryside (fig. 6.11).[49] Although illustrations of the Boyne battlefield were drawn or painted well into the eighteenth century, we cannot depend on these for accurate depictions of the seventeenth-century landscape.

What follows is a discussion of the seventeenth-century landscape under the headings of topography and land use, roads, settlements and battle landmarks which is based on paintings and written sources concerned with the Battle of the Boyne. The objective of this section is to identify and map all topographical features associated with the battle site.

---

44. P. Harrington, 'Images of the Boyne' in *Irish Sword*, xviii (1992), pp 57-61, see p. 57.

45. *Victoire rememportée par le Roy Guillaume sur les Irlandaise a la riviere de Boyne en Irlande, le ler Juillet, 1690.* Original in the Rijksmuseum-Stichting, Amsterdam, engraving sold in London by E. Cooper. Maes was born in Haarlem, and was one of the leading battle artists in late seventeenth-century Holland.

46. *Designe sur le lieu, le I Juillet 1690, pat Thodor Maas, peintre du Roy Guillaume*; A. Crookshank, *The painters of Ireland c.1600-1920* (London, 1978), p. 54, plate 36.

47. P. Harrington, 'Images of the Boyne' in *Irish Sword*, xviii (1992), pp 57-61, see p. 59.

48. *Ibid.*, p. 58; *Victoire remportée par le Roy Guillaume III par le defaite entiére de l'armee de Jacques II en Irlande, l'Ile de Juillet, 1690.*

49 G. Story, *An impartial history of the wars of Ireland* (London, 1693).

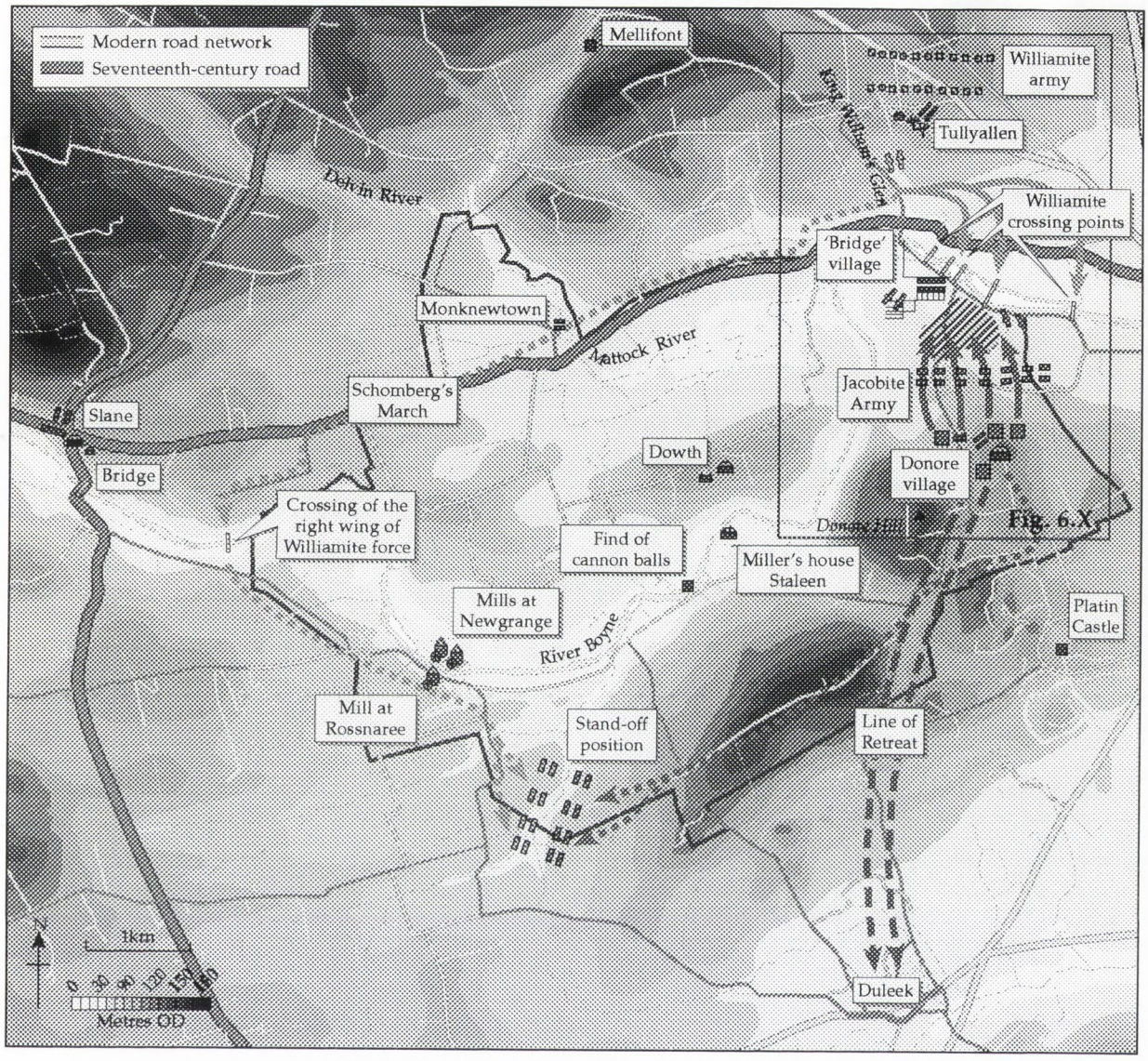


Fig. 6.5 The Battle of the Boyne (after Storey, 1693).

Battle landmarks From the battle accounts, it is possible to locate approximately the position of the encampments, the placement of field pieces, the areas over which combat took place and the terrain through which troop movements occurred. These are the areas likely to contain archaeological deposits and to be identified for public interpretation. Despite the international importance of this battle, they remain unmarked!

On the day before battle, the Williamite army camped on the north side of Tullyallen, described by Story as 'a small village'. The exact position of 'the English Camp' is indicated as two broken lines (G) (figs 6.5, 6.6, 6.11), a good distance apart, running for 3km east-west. The position of the 'Irish Army or Jacobite encampment' is shown by two closely spaced broken lines (B) on the north-facing slope below the old church at Donore and to the rear of Oldbridge village. The Jacobites also camped nearer to Drogheda, in two lines from the hills of Rathmullen to Oldbridge.[50]

The Williamite battery was located on an upper south-facing slope on the east side of King William's Glen roughly where there is a viewing platform located today. This overlooked the ford at Oldbridge. It comprised thirty-six heavy field guns, not including siege pieces and mortars.[51] Some of these are shown in Theodore Maas's engraving (fig. 6.7) and Jan Wyck's painting (fig. 6.9) of the battle scene. Maas also shows a battery at the river's edge on the south side of the road. The Jacobites had eighteen field guns, mainly six and twelve pounders, in three batteries which were planted on two eminences commanding the ford at Yellow Island. A third small battery was placed opposite the ford, at the confluence of the Mattock river, and west of Oldbridge village.[52] Story's map (1693) shows five fording points between Drybridge and Oldbridge (figs 6.6, 6.11).[53] The fording points across Grove and Yellow Island are shown by Story. The river could also be crossed at Drybridge at the point identified on the OS map as 'Pass If You Can'.[54] One of the last battles of the day took place when William crossed the river at 'Pass If You Can' and attacked Donore (fig. 6.6).

William's strategy for the battle involved a major diversion near Slane, commanded by Schomberg's son Meinhard, with the main attack directed across the ford at Oldbridge. Whilst the right wing of the Irish army was well defended at Drogheda bridge, on an important north-south route, its left wing was left unprotected at Slane. In the early hours of 1 July, Schomberg, with an infantry of

50. P. Beresford-Ellis, *The Boyne Water* (Belfast, 1976), p. 103.

51. J. Hyland, 'The battle of the Boyne' in *Command Magazine*, xliii (1997), pp 30-46, see p. 33.

52. D. O'Carroll, 'An indifferent good post: the battlefield of the Boyne' in *Irish Sword*, xviii (1992), pp 49-56, see p. 54; J. Hyland, 'The battle of the Boyne' in *Command Magazine*, xliii (1997), pp 30-46, see p. 33.

53. *Ibid.*

54. R. Murray (ed.), *The journal of John Stevens* (Oxford, 1912).

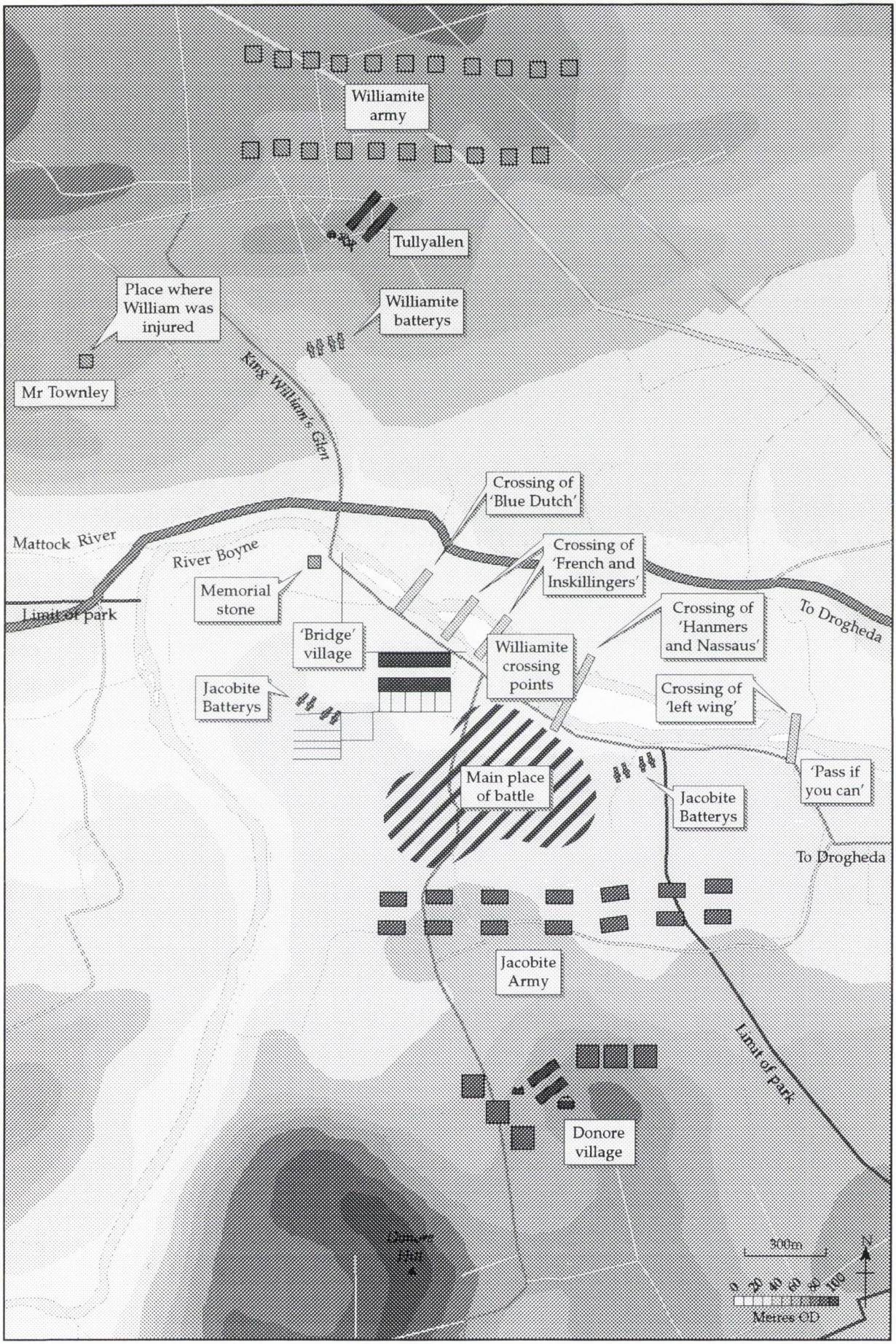


Fig. 6.6 The main area of conflict during the Battle of the Boyne (after Storey, 1693).

3,000 men, 4,000 troops on horse back and two dragoon regiments crossed the Boyne below Knowth.

Between Oldbridge and Slane, the only ford capable of being used by the infantry was at Rossnaree. Story's map shows only one ford at Rossnaree on the Slane side of the Bend in the river, to the west of the present Rossnaree House (6.5, 6.11). This section of the river provides easy access to and from the river. This may have been the ford used by Schomberg.[55] An eye witness account of a trooper in Schomberg's force describes the crossing of the Boyne thus: 'the passage was a very steep hill, and a shallow river at the bottom, that lead into a very fine plain'.[56] This account describes the area aptly. Story's map places Schomberg's crossing much further west than the ford of Rossnaree, at Fennor where a river crossing is marked on the Down Survey map. After fording the Boyne, Schomberg marched his forces further south until they reached low boggy terrain which effectively blocked them.

James, convinced that the movement at Rossnaree was the beginning of the main attack, dispatched Lauzun and the French brigade with Maxwell's dragoons and Patrick Sarsfield's cavalry regiment. The six regiments of Lazun's French brigade stumbled across an impregnable defensive position on rising ground fronted by a bog and steep ravine protected to the south by the bog of Gilltown. Sarsfield and Maxwell, who had gone over the ground thoroughly, explained to James that counter attack was impossible because the ravine blocked their entire front.[57] The inhospitable ground prevented any frontal attack; a deep ravine blocked their entire front. The only counter attack came from Neale O'Neill with a small force of his dragoons, but this attack foundered. The Jacobite dragoons had to fall back in the direction of Duleek. This engagement was virtually over by nine o'clock when William dispatched Douglas to reinforce Schomberg with the remaining cavalry. Physical conditions dictated a stand-off at Roughgrange.

Two regiments of foot, Antrim's and the Earl of Clanricarde's, had been delegated to defend Oldbridge for the Jacobites. The other five infantry regiments, under overall command of Hamilton, were spread out on a wide front to the south and east of Oldbridge. The Jacobite cavalry, led by Sheldon, was stationed in reserve behind the church at Donore. Two dragoon regiments screened the far right at Rathmullen. The fighting was largely confined to the area of Oldbridge where the Boyne was fordable and extended as far south as Donore old church where James took up his position. Story's map shows five crossing from west to east (fig. 6.11). The Blue Dutch Guards, who relied on pistol fire, gathered at King William's Glen, crossed first and were attacked by the Jacobite foot guards (L). The Jacobite guards soon fell

55. D. O'Carroll, 'An indifferent good post: the battlefield of the Boyne' in *The Irish Sword*, xviii (1992), pp 49-56.

56. [G. S.], 'Two unpublished diaries related to the battle of the Boyne' in *Ulster Journal of Archaeology*, iv (1856), pp 77-95, see Bonnivert's Journey, pp 77-95.

57. Hyland, 'Battle of the Boyne' in *Command Magazine*, p. 44.

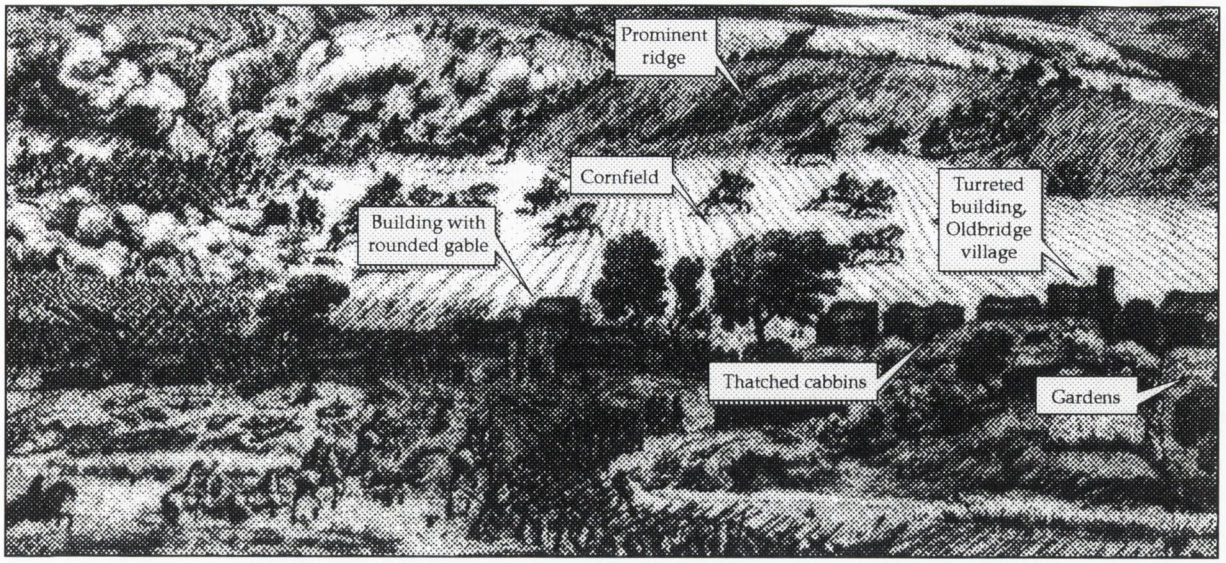


Fig. 6.7 Detail from *The Battle of the Boyne, 1 July 1690* by Maas.

back and the Dutch advance guard re-grouped south of Oldbridge. The first line of William's centre then moved down to the fords of Oldbridge and Yellow island. Colonels John Mitchel Bourn and Gustavius Hamilton's regiments of Derry and Enniskillen infantry crossed the river. On their left, facing the Irish infantry, the two Huguenot regiments of Comte de la Caillemote and Cambon also forded the river. The next Williamite units to cross were Colonel St. John's Derrymen and Sir John Hanmers English, supported by the Dutch regiment of Hendrik van Nassau, a cousin of William's. On the Jacobite side Richard Hamilton moved his infantry down the hill to contest the new crossings whilst Sheldon and Berwick advanced on the Dutch Guards with the cavalry. The Danish division forded the Boyne at Yellow Island around eleven o'clock with nine regiments of infantry spearheaded by the grenadier company of the Danish Royal Guards. The first Williamite horsemen crossed the Boyne about noon led by Ginkel, managing to haul two small canons over with them. They were attacked by James' dragoons who had been protecting their right flank. The Jacobite army under Hamilton retreated to Donore church yard. The Irish horse wheeled and charged for the last time at Platin.

A number of finds have been collected from the battle fields of Oldbridge. These include coins and weaponry, now held in the National Museum of Ireland (table 6.2b). Most recently, two seventeenth-century cannon balls were recovered from the Boyne at Staleen during an underwater excavation on the bed of the river where a footbridge for the Park's visitor centre was to be constructed. [58]

Table 6.2b

Archaeological finds from the Boyne battlefield site at Oldbridge in the National Museum of Ireland

1860:368	Iron canon ball found near obelisk
1A/284/89	**(finds from metal detecting activities at Oldbridge 1989)**
No. 6	Coin of William III, sixpence, silver
No. 10	Coin of William III, sixpence, silver
No. 15	Flintlock hammer, found in ploughed field
No. 25	Lead ball, possibly miniature canon shot,
No. 33	Coin Charles II, Hibernia farthing
No. 34	Coin Charles II farthing 1674, St Patrick's coinage
No. 35	Coin Charles II farthing 1674, St Patrick's coinage, found at Oldbridge
No. 36	Coin Charles II Hibernia farthing
No. 37	Coin James II half penny, regular coinage 1686
No. 38	Musket balls, 100 fired and unfired
	James II half penny 1685-91 found in ploughed land
No. 59	Powder measure

58. N. Gregory, 'River Boyne, Stalleen townland, county Meath: excavation report' in *County Louth Archaeological and Historical Journal*, xxiii (1995), pp 329-35.



Fig. 6.8 *The Battle of the Boyne, 1 July 1690* by Maas.

Topography and land use The Williamite forces were impressed by the fertility of the plain watered by the Boyne.[59] One trooper described the area as 'a very fine plain'.[60] The Danish ambassador Foulerasse was to record:

> As we descended the small hills [drumlins] with which the northern part of the kingdom is studded, we discovered a very fine fertile plain watered by the Boyne.

According to Story's account, William 'rode along and said it was [land] worth fighting for'.[61] The account describes cornfields fronting the north side of the river.[62] Fences and stone walls bordered the fields. Story's map has sketchy indications of these enclosures (fig. 6.11). He also records that 'a party of about 40 horse... stood upon a ploughed field' on Donore hill.[63] The south side of the Boyne is shown as hilly and inhospitable on Story's map and depicts the difficult terrain which both armies experienced at Roughgrange. As noted above, the boggy valley west of Roughgrange was of crucial importance well into the battle. Sarsfield and Maxwell reported that a cavalry charge was impossible as there were two double ditches with high banks and a little brook between them in the valley that separated the two forces.[64]

> We drew up to enclose the enemy's whole army but a damned deep bog lay between us, we could not soon pass.

This terrain is still evident today but it is not so boggy because of eighteenth and nineteenth-century field drainage. It is impossible to quantify the extent of enclosure from these seventeenth-century records. It is certain, however, that extensive areas had been enclosed before the beginning of the century.

Roads These accounts provide the earliest detailed description of local communications in the Bend of the Boyne. By the late seventeenth century, a well developed infrastructure of roads and surfaced lanes was bordered by banks and high hedges. This network of roads would have aided, to some extent, the movement of the large bodies of troops involved in the battle to their desirable positions. On the north side of the river, the main highway between Drogheda and Slane was in place with access off this to the village of Monknewtown and to Tullyallen via King William's Glen (fig. 6.5). Both Maas's drawing and the Jan Van Wyck painting show some of these roads (figs 6.7, 6.9). It is presumed that Schomberg took the back roads from King William's Glen in the direction of Slane, passing north of Townley Hall before joining the main Drogheda to Slane road by

59. Beresford-Ellis, *Boyne Water*, p. 56.

60. [G. S.], 'Two unpublished diaries', p. 81.

61. Story, *Impartial history*, p. 55.

62. Murray (ed.), *John Stevens*.

63. Story, *Impartial history*, p. 75.

64. Quoted in Beresford-Ellis, *Boyne Water*, p. 82



Fig. 6.9 Detail from *The Battle of the Boyne* by Jan Wyck. It shows the village at Oldbridge on the south bank of the river. The buildings were removed during the construction of a canal a century later and the subsequent creation of a demsne at Oldbridge.

the hamlet of Monknewtown. Sections of this old road run northeast from Monknewtown, cross the Mattock at a ford, and continue to Mellifont.

On the south side of the river, a little lane, also described as 'a stony path bordered by a hedge', ran close to the river's edge from Drogheda to the village of Oldbridge. Ginkel's Williamite regiment was led in a charge along this lane.[65] The exact route from Oldbridge to Duleek taken by the retreating Jacobite army is difficult to determine. A section of disused roadway on the grounds of Oldbridge House may have been part of this seventeenth-century network. It comprises a roughly levelled area defined on each side by a bank and ditch, 10m wide traceable for 400m.[66] A commemorative stone, marked 1690, lies beside the southern terminal of this road. This is thought to commemorate Caillemote, one of the Williamite commanders, who died in the battle (fig. 6.6).[67] From this old road on the Oldbridge estate, the road to Duleek took a different line from today's road. An older route has been traced on the ground by a local historian in Donore. It ran by Reid's lane and by the Castle Hill to come out at Tobersamanagh at Staleen. From Tobersamanagh the road went by Everard's lane and over the hills to Duleek (fig. 6.5). This road, running over Donore hill, is visible on Jan Van Wycks painting (fig. 6.9).[68] The Jacobites joined the existing main road to Duleek. We know that there was a road from Oldbridge to Platin because during the battle Hamilton withdrew his Jacobite cavalry back to Platin castle.[69] The approximate course of this road is indicated on fig. 6.5.

The road system on the south side of the river between Rossnaree and Staleen is difficult to determine. One would at least expect that there were roads running north/south either side of the fording points at Rossnaree and Staleen. The course of east/west routes at this point is uncertain. Storey describes a lane by the pass of Rossnaree where there was an encounter between Jacobite Dragoons and Williamite forces.[70] This probably refers to the Slane-Rossnaree road. There is no evidence that a road ran east/west along the river between the two fording points. The absence of roads across the wetlands between Staleen and Rossnaree hampered the Williamite advance in the south-western field of action.

Settlements Many settlements and dwellings referred to in earlier documents (some of which have since been removed) are illustrated in some detail in accounts

65. G. Story, *An impartial history of the wars of Ireland* (London, 1693), p. 83.

66. Ordnance Survey, first edition 1:10,560 map (1840).

67. D'Alton, *Drogheda*, p. 43.

68. S. Matthews, 'Under the hill of Donore' in *Journal of the Old Drogheda Society*, ix (1994), 118-28, see p. 125.

69. Beresford-Ellis, *Boyne Water*, p. 109.

70. Story, *Impartial history*, p. 78

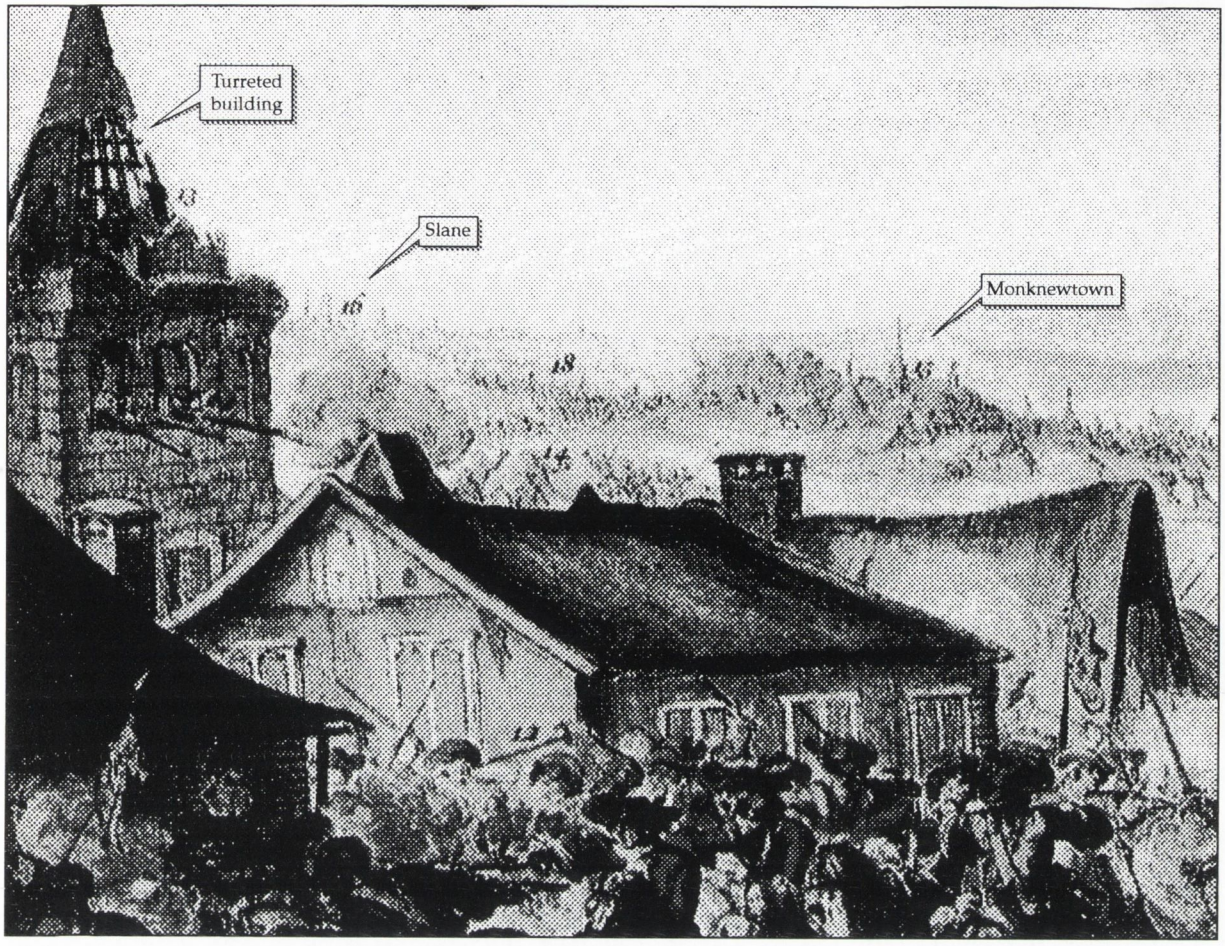


Fig. 6.10 Detail from *The Battle of the Boyne* by de Hooghe.

of the battle and contemporary illustrations. The village of Tullyallen (just outside the study area) is termed 'a small village' on Story's map (fig. 6.11). A Williamite Colonel Bellingham called on 'Mr. Townly's place', on the present site of the eighteenth-century mansion Townley Hall.[71] The village of Monknewtown through which Schomberg and his troops passed is shown in De Hooge's painting off the Drogheda to Slane highway (fig. 6.10). The village of Slane is depicted as an insignificant street of houses either side of the main road, its form prior to extensive eighteenth-century remodelling. Buildings are shown at Dowth within the Bend of the Boyne proper.

Because the Jacobite position was near Oldbridge, detailed descriptions and drawings of the village exist, of particular importance because it is no longer extant. The village was located close by the river amidst cornfields and meadows in approximately the same location as the present entrance into Oldbridge House and extended eastwards on the site of the present canal. The accounts describe:

> Several hedges and little Irish houses close to the river. There was one house of stone that had a court and some little works about it.[72]

This precisely locates a stone house mentioned in the *Civil Survey* of 1654. A Danish envoy, Foulerasse, wrote of a 'street of the village' suggesting that these houses were arranged either side of a street.[73] William's Secretary of War, George Clarke, observed that:

> About eight or nine of our cannon began to fire upon two houses with yards walled about, that stood on each side of the road on the other side of the Boyne, just over against the ford where the guards were to pass.[74]

This is how the village is shown on Story's map. The French General Hoguette had batteries set up at Oldbridge and earthworks were dug along the river bank on the day before the battle.[75] De Hooge's painting shows that large holes were blown in the houses and part of what appears to be a church tower had been smashed (fig. 6.10). This tower is identified as 'a squat church' on the terrier which accompanies the painting. This turret also appears on the Maas's engraving (fig. 6.8). No previous record puts a church at this location, nor is there any mention of a church here in subsequent records. If it was indeed a church, it was constructed after 1654 and destroyed prior to the construction of the Boyne Canal *c.*1750. The vernacular buildings that made up the village of Oldbridge are shown in convincing detail on Maas's engraving (fig. 6.8). They were rectangular in plan, one story high with

---

71. A. Hewitson (ed.), *Diary of Thomas Bellingham: an officer under William III* (Preston, 1908), p. 129.

72. Story, *Impartial history*, p. 74.

73. Quoted in Beresford-Ellis, *Boyne Water*, p. 26.

74. *Ibid.*, pp 83, 106-7; Story, *Impartial history*, p. 83.

75. Quoted in Beresford-Ellis, *Boyne Water*, p. 26.

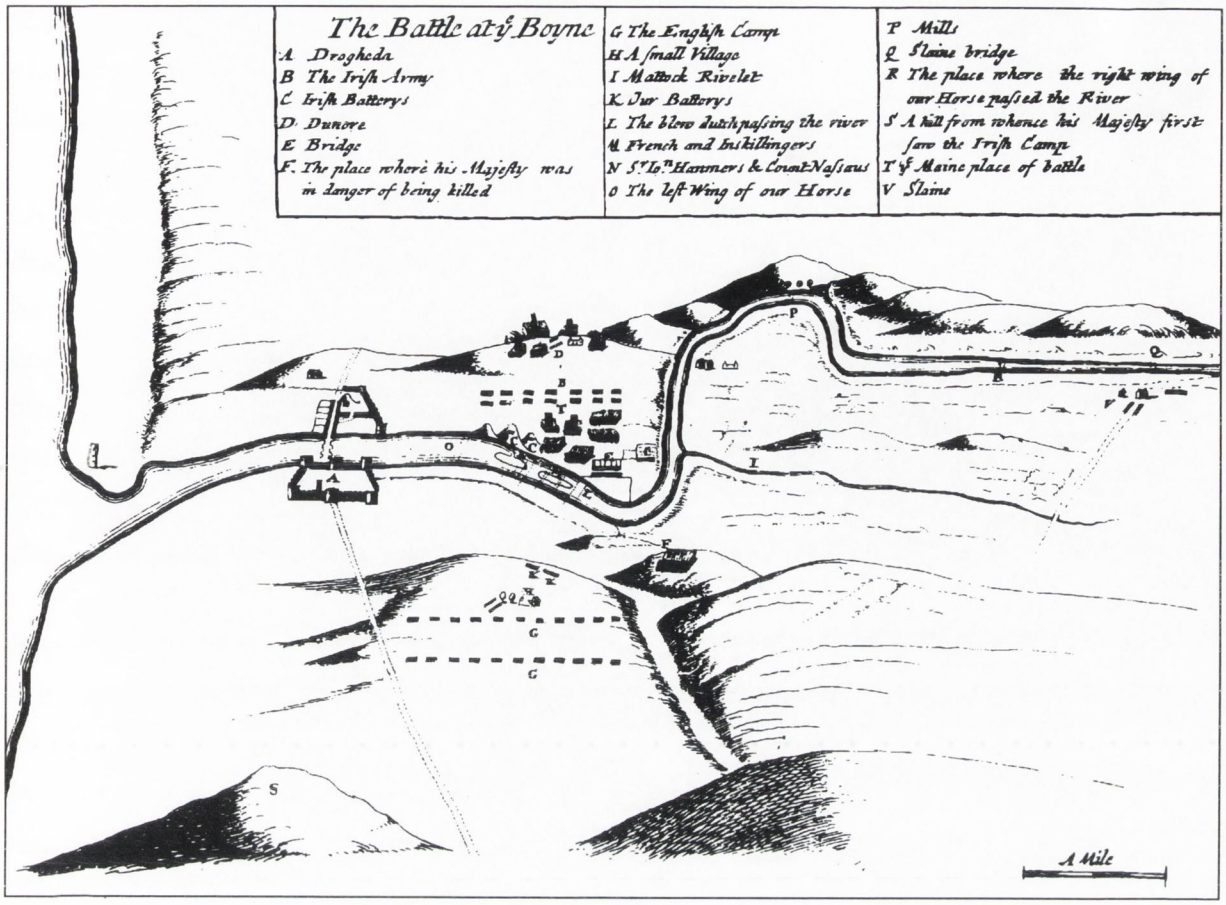


Fig. 6.11 Detail from Storey's 'map' of the Battle of the Boyne.

thatched roofs and entrances opening onto the Boyne. The houses look more elaborate on De Hooge's painting where there looks to have been some artistic licence taken.

The village of 'Donore' is shown in these contemporary sources on a hill above Oldbridge where the medieval church of Sheephouse is located today. Story's drawing shows that the church (a turreted building) was then in ruins and its walls had been pierced with firelocks (fig. 6.11). This building is also shown on Maas's engraving (fig. 6.8). Another roofless building is depicted beside the church on Story's map. The place was said to have been 'full of dungpits and the passage narrow'.[76] Subsequently, a chapel village developed further south at the base of Donore hill which was also called Donore. This has led to some confusion about the precise location of one the key encounters during the Battle of the Boyne.

Significant events which took during the battle at Platin Castle provide no details about the settlement there; nevertheless, the site of this castle provides a tangible link with the past. Following the Battle of the Boyne, the castle at Platin was looted by the Williamites and the Darcys were outlawed. Later, their estate was confiscated and eventually sold to John Graham of Drogheda. A house was built at Platin *c.*1700 by Graham, replacing the earlier castle which was involved in the 1641 rebellion. In other troop movements, the Jacobites skirted a small cluster of 'deserted crofts' on the retreat towards Duleek.[77] Local tradition recalls a village called Loughawanny that once stood in the townland of Staleen. This could be the site of the deserted crofts mentioned in the sources.

Mills are shown on south side of the river on the map accompanying Story's *Impartial history* (fig. 6.11). These are probably the mills at Newgrange and Rossnaree which are recorded in the Civil Survey of 1654. Local tradition records two associations of miller's houses with events in the battle. Patrick Sarsfield was said to have been brought to a house in King William's Glen. This is probably the mill of Alt mentioned in eighteenth-century deeds. In King William's Glen, there is an area known as the mill rock where this mill probably stood. Tradition points to an house in Staleen where bread was baked for the Jacobites. If this tradition were true, this could only have been a small group of Jacobite dragoons on reconnaissance prior to the battle.[78] In seeming confirmation of this tradition, excavations immediately west of the mill produced remains of cannon from the Battle of the Boyne in a place with no other recorded history of involvement in the battle.[79]

---

76. Sir Robert to the Earl of Nottingham, 1 and 2 July 1690 (HMC Finch MSS, ii 326, 329).

77. Beresford-Ellis, *Boyne Water*, pp 74, 81-2.

78. G. Stout, *The bend of the Boyne: an archaeological landscape* (Dublin, 1997) p. 30.

79. Gregory, 'River Boyne', pp 329-35.

6C Conclusions and conservation statement

The *Civil Survey* undertaken by the Cromwellian government provides a detailed description of the Bend of the Boyne. It is a particularly important source in that it precedes the great changes to the landscape wrought with the creation of the eighteenth-century estates. Again, it is only the more monumental buildings from this period of history that have received some form of legal protection. These include churches fortifications, mills and weirs (table 6.3). The domestic structures – stone houses and farm houses – are neglected because of the difficulty in identifying traces of them on the ground. These sites can only be identified through a programme of research which combines aerial photography, remote sensing and ploughzone archaeology and excavation.

Table 6.3
Topographical features in the Bend of the Boyne mentioned in the Civil Survey of 1654.

Location	Site type	Status
Balfeddock	Farm house	No precise location
Corballis	Messuage	No precise location
Donore	Cabins	No precise location
Donore	Church	RMP 20:11
Donore	Farm house	No precise location
Dowth	Castle and bawn	RMP 20:18
Dowth	Church	RMP 20:19
Dowth	Corn mill	No precise location
Dowth	Orchard	Destroyed
Dowth	Pigeon house	Destroyed
Dowth	Salmon weir	RMP 20:28
Dowth	Stone house	RMP 20:18
Dowth	Tuck mill	No precise location
Knowth	Farm house	No precise location
Monknewtown	Church	RMP 19:19
Monknewtown	Farm house	No precise location
Monknewtown	Stone bridge	No precise location
Newgrange	Mill	RMP 19:6804
Newgrange	Mill	Destroyed
Newgrange	Stone house	No precise location
Newgrange	Weir	Destroyed
Oldbridge	Cabins	No precise location
Oldbridge	Stone house	No precise location
Platin	Cabins	No precise location
Platin	Castle	Destroyed
Proudfootstown	Castle	RMP 20:01
Proudfootstown	Mill	No precise location
Proudfootstown	Orchard	No precise location
Proudfootstown	Stone house	No precise location
Rossnaree	Corn mill	RMP 26:0502
Roughgrange	Mill	Destroyed
Sheephouse	Cabins	No precise location
Staleen	Farm house	No precise location
Sheephouse	Stone house	No precise location
Staleen	Farm house	No precise location
Staleen	Mill	RMP 20:2803

The sources for the Rebellion of 1641 in the Bend of the Boyne concentrate on both the property of the 'Old English' lords who supported the rebellion and church property which suffered serious damage during the period (section 6Bii). Within the study area, the key players were Netterville of Dowth Manor and Darcy of Platin Castle. Much of the history of the rebellion in the area has been tied into these two properties. Fortunately the remains of the towerhouse at Dowth has survived as a monument to the rebellion/Cromwellian period. Platin, however, is no more. Also mentioned in this study were the camps at Rathmullen and a stone house at Oldbridge which is probably the stone house with a court mentioned in accounts of the Battle of the Boyne. Within the study area the medieval churches at Dowth, Knowth, Monknewtown and Knockcommon were seriously damaged. The majority of these sites are included in the Record of Monuments and Places for County Meath (RMP) and are described in the Archaeological Inventory for County Meath (table 6.4)

Table 6.4
Topographical features in the Bend of the Boyne associated with the Rebellion of 1641

Location	Site type	Status
Dowth	Castle	RMP 20:18
Dowth	Church	RMP 20:19
Knowth	Church	RMP 19:30
Monknewtown	Church	RMP 19:18
Oldbridge	Stone house	No precise location
Platin	Castle	Destroyed
Rathmullen	Castle	No precise location

The main objective of section 6Biii was to identify and map all the topographical features in the Bend of the Boyne associated with the Battle of the Boyne. A need also exists to take a broader view of the battlefield site because attention to-date has been focused simply on the Oldbridge sector rather than on the entire battleground that stretched from Drogheda to Slane and from Tullyallen to Duleek. This limited and parochial interpretation of the 'battlefield' has been a feature of the recent preservation and presentation efforts of the West Ferrard Rural Development Group. The lack of precise, comprehensive information has undermined the case for preservation of sections of the battlefield site in two recent planning cases. The two planning cases have also highlighted the poor legal status of the Battle of the Boyne battlefield site and the Boyne Valley Archaeological Park.

In 1987 Irish Cement applied to Meath County Council for permission to demolish some houses, develop a shale quarry and excavate settling ponds on Donore hill.[80] This application was accompanied by an EIS which dealt largely with

80. Meath County Council, 87/000/319.

environmental issues such as noise, water and ground quality. Permission was granted, ironically, in July 1987. This was appealed to An Bord Pleanála and an oral hearing followed. Despite lengthy submissions by the National Monuments Advisory Council and Colonel Donal O'Carroll of the Military History Society, the appeal failed. O'Carroll argued that the area of the proposed quarry played an important role in the Battle of the Boyne, without being actually at the centre of fighting. An Bord Pleanála decided that Donore hill only occupied a small part of the total area over which the battle was considered to have been fought. They also decreed that the works would not detract visually from the rich archaeological and historical significance of the area. With regard to the amenity area order (the only official declaration of the status of the 'Archaeological Park'), An Bord Pleanála advised that the Development Plan did not set out to limit development in the area but only sought to protect 'visual and other characteristics'.

In 1989 the An Bord Pleanála decision was quashed by the High Court because according to the judge

> The planning inspection had failed to give a fair and accurate account of the evidence on the issue of the battlefield site.

An Bord Pleanála proceeded with the determination, by written submissions, on the historical significance of the site and the location of the site in relation to the Bend of the Boyne. As a result of this additional information, the earlier decision granting approval for the 'development' was upheld. Permission was finally given to Irish Cement to develop the site on 20 December 1989.

The implications of this decision are considerable. It has removed the Donore hill site from future inclusion in a comprehensive policy for the conservation or development of the battlefield site. It highlighted the absence of legal protection for the overall terrain on which the Battle of the Boyne took place. It identified the need for a management plan or vision for the protection of the Battle site based on advice from military historians, archaeologists and landscape archaeologists. Lastly, the flawed arguments of those opposing the application – confusion about the location of the village of 'Donore' – emphasised the need for detailed research and precise locational information. This was the first major development since the designation of the Bend of the Boyne as a 'Protected Area' and proved only the impotence of the Meath Development Plan and the agencies whose job it was to protect the landscape.

In 1992, a consortium of local and international business people applied to Meath County Council for the development of an hotel, golf and leisure complex on the grounds of Oldbridge House which, without question this time, incorporates the Boyne Battlefield site.[81] This application was accompanied by an EIS in which the

81. Meath County Council, P 92/473.

proposers claimed they had made 'every effort to combine the cultural ambience of the past with the requirements of the future'.[82]

Table 6.5
Topographical features in the Bend of the Boyne associated with the Battle of the Boyne

Location	Site type	Status
Dowth	Dwelling	RMP 20:18
Drogheda	Bridge	RMP 19:24
Drogheda-Slane	Seventeenth-century road	
Drogheda-Oldbridge	Seventeenth-century lane	Site
Drybridge	Ford	
Duleek-Oldbridge	Seventeenth-century road	Part of
King William's Glen	Mill house	
Mellifont-Monknewtown	Seventeenth-century road	
Monknewtown	Seventeenth-century village	Site
Newgrange	Ford	
Newgrange	Mill	Site, RMP 19:68904
Newgrange	Pass	
Oldbridge	Battlefield	Site, RMP 20:25
Oldbridge	Caillemote stone	
Oldbridge	Find spot	
Oldbridge	Fords	
Oldbridge	Jacobite battery	Site
Oldbridge	Jacobite encampment	
Oldbridge	Seventeenth-century road	Part of
Oldbridge	Village	Site
Oldbridge-Tullyallen	Seventeenth-century road	
Platin	Castle-site	
Rathmullen	Jacobite encampment	
Rossnaree	Ford	
Rossnaree	Mill	Site, RMP 26:05
Rossnaree	Pass	
Roughgrange	Battlefield	
Sheephouse	Donore church	RMP 20:11
Sheephouse	Donore seventeenth-century village	Site
Sheephouse	Jacobite battery	Site
Sheephouse	Jacobite battery	Site
Sheephouse	Jacobite encampment	
Slane	Bridge	
Staleen	Find spot	
Staleen	Houses (Loughwanny)	Site
Staleen	Mill house	RMP 20:27
Townleyhall	Dwelling	Site
Tullyallen	Williamite encampment	
Tullyallen	Seventeenth-century village	Site
Tullyallen	Williamite battery	Site
Tullyallen	Williamite battery	Site

In a discussion document, the planning department of Meath County Council felt that the golf course would have a detrimental effect on the landscape and the historical 'feel' of the place. In a re-design it was proposed to leave the low level parkland area to the front of Oldbridge House undeveloped. This was to be

82. Brady, Shipman and Martin, Oldbridge EIS (unpublished report, 1992).

designated as part of the Battle of the Boyne site and the gate lodge was to be converted into an interpretative centre. The planning permission was granted in 1992 subject to twenty-five conditions.

Although there was a much more sympathetic approach in this case, part of the battlefield site was sacrificed to this leisure development. Again the lack of legal protection was underlined and the dubious status of the area of the Archaeological Park highlighted. Since then, a limited area in Oldbridge has been designated as a battlefield site in the Record of Monuments and Places (RMP 20:25). In the accompanying table 6.5, forty-one features in the landscape are identified that are associated with the Battle of the Boyne. Of these, only seven are included in the present Record of Monuments and Places which places an archaeological constraint on any development near the listed places. There is a definite need to protect all these features and develop them as a cultural resource by incorporating them into walking routes, auto routes and signage of the battlefield.

6D Comparative approach to the management and interpretation of the Battle of the Boyne battlefield: Little Bighorn National Monument, Montana.

The holistic approach taken to the management of the Little Bighorn National monument, Montana, U.S.A. provides useful pointers for determining the future plans to present the Boyne battlefield site to the public. The battle of the Little Bighorn was fought between twelve companies of the Seventh US cavalry and the Sioux and Northern Cheyenne Indians on 25 June 1876. Lieutenant Colonel George Custer and 268 of his forces were killed and a high proportion of the men were Irish. This was the largest fight in the history of the Plains Indian Wars and in winning this battle against the US army the Indians subsequently lost everything. There are significant comparisons to be made between the Battle of the Boyne and Little Bighorn; both have a symbolic dimension which far exceeds their military significance; their greatest significance lay in the public reaction to the events rather than the events themselves; both represent a pivotal and defining point in the clash of cultures – Catholic versus Protestant, Indian versus Euro-American. Similarly, both military events remain controversial today and reconciliation will remain an important feature in the presentation of both sites. On a more practical note, the scale and topography of both battlefields compares favourably.

Monument designation The Little Bighorn National Monument occupies 309ha in south-central Montana, USA. It consists of two separate parcels of land in the Crow Indian reservation which represent the main foci of conflict in the battle.[83] The main parcel contains the ridge where Custer made his last stand against the Indians. The

83. National Park Service, Final general management plan and development concept plans: Little Bighorn National Monument (unpublished United States Department of the Interior report, 1995), p. 3.

second parcel contains the site of the Reno-Benteen defence perimeter. The two are connected by a 6.6km National Monument road which is used for bus and self-guided tours. Within this area there is a visitor centre and parking facilities with access to a loop road. The designation of two parcels of land could be replicated in the Boyne where there was also two main foci of conflict in the Battle of the Boyne; the frontal assault at Oldbridge and the outflanking position at Rossnaree.

At the Little Bighorn National Monument, there are proposals to expand the existing boundary to include another 4,776ha in the National Monument property which will take in the primary view-shed surrounding the core area. Preservation of these view-sheds in their natural condition is seen as necessary to maintain the element of 'historic association' between the surrounding lands and the battlefield, artefacts and sites related to the battle of the Little Bighorn. The outlying land also contains sites and artefacts related to the battle.[84] Such an ambitious programme of preserving the view-shed at the Battle of the Boyne site is now impossible, but it should be a consideration for planners especially in regard to the erection of telecommunications masts, water towers and industrial buildings.

Management The Little Bighorn battlefield site is managed by the National Park Service, Department of the Interior. They have produced a 'General Management Plan' to provide necessary guidelines and strategies for the management and use of the Little Bighorn National Monument. Their 'Natural Resource Management Plan' was approved in 1977. Within the proposed National Monument boundary, various management zones specify the long term allocation of the land resources and their setting within the battlefield site.[85] All lands are classified as an 'Historic Zone' where all the activities are managed to preserve, protect and interpret actual resources and their settings within the Historic zone. Four subzones have been identified; a natural subzone representing 73% of the monument land, a cultural resource subzone (20%), a development subzone (6%) of the proposed land and a special area (1%) that contains the National Cemetery. They have also a resource management plan which deals with the cultural resources of the site. The national monuments museum collection, manuscripts books and documents are stored at the park centre. There is a full time museum technician and historian at the site whose responsibilities include replying to requests for information.

Interpretation The purpose of the Little Bighorn Battlefield National Monument is stated in this management plan:

84. *Ibid.*, p. 4.

85. *Ibid.*, pp 7-8.

> To preserve and protect the historical and natural resources pertaining to the battle and to provide visitors with an improved understanding of the events leading up to the battle, the sequences of activities by both military and native American contingents on June 24-27 1876 and the historical consequences of the results of these fateful days.

The unchanged landscape provides opportunities for profound personal reflection on the historical event. The Park service has taken an holistic approach to modern interpretations of the Little Bighorn, incorporating Indian renditions of the battle and incorporating the battle into the broader context of Indian conflict between 1865 and 1890.[86] In order to impart the story of the event, they have recognised each adversaries status before and after the battle and noted conditions that have remained static. They have set 'experience objectives' that the visitor should receive adequate information and orientation for touring the battlefield site and be able to understand the controversial issues involved. The managers of the site have also set out the 'primary interpretative themes', the concepts and ideas about the Little Bighorn which provide the foundation for all the interpretative programs. The primary 'theme' is that the battle has a symbolic dimension which far exceeds its military significance. This model could be lifted in its entirety to apply to the Battle of the Boyne site.

The existing visitor experience from the park entrance to the visitor centre contains the following elements. A tepee and soldier tent have been erected adjacent to the visitor centre which is used for demonstrations of weaponry and everyday life in the encampments for both Indians and cavalry. Within the centre, a book shop, exhibition, art and audio-visual display describes recent archaeological findings. Interpretative talks are held on an outdoor terrace cleverly orientated to take in the overall battlefield view-shed. Talks here describe the actual battle and the wider context of the Indian wars. Wayside exhibits outside the centre interpret the views. The visitor centre is the departure point for a guided bus tour run by the Crow Indians, or the visitor can use the self-guided Auto Tour. If this model were applied to the Battle of the Boyne, one could foresee tours conducted by the Orange Order and presentations on the battleground explaining the European context of the battle, seventeenth-century warfare and the events of the battle itself.

The role of the archaeologist The early interpretation of the Little Bighorn Battle depended on conventional documents and oral accounts. However since the 1980s it has been recognised that behaviour on the battlefield can be demonstrated through archaeological finds. On the basis of material remains found on the battlefield site and the correlation of this archaeological evidence with historical sources, the sequence of events is understood for the first time. This study has demonstrated the

86. National Park Service, Interpretative prospectus: Little Bighorn Battlefield National Monument (unpublished United States Department of the Interior report, 1975).

value of integrating archaeology, combat modelling and history in the study of warfare.[87]

During 1984 and 1985 Douglas Scott of the National Park Service Midwest Archaeological Centre and Richard Fox directed a study that produced *c.*1,000 battle-related artefacts.[88] A grid system was laid over the entire area of the final stage of fighting, placing permanent control points at 100m intervals. Transects were walked by metal detector operators. Each find was marked with an arrow. An artefact recovery crew exposed the find spots and a recovery crew located each find to the grid and noted date, depth and orientation.

These artefacts were seen as the residue of the battle and the product of combat behaviour. Artefact distribution allowed the identification of various sectors in which battle actions took place. The archaeological application of firearm identification analysis (probably not possible with seventeenth-century weaponry) determined individual behaviour on the battlefield site. The Seventh cavalry operated inter-cavalry tactics, newly formulated for the US Army. This included the formation of skirmish lines. Skirmish behaviour leaves recognisable patterns in the ground. In contrast, the dispersed and random distributions of residues from Indian firearms suggest that many acted on their own with no preconceived strategy. Fox's archaeological deductions revealed that defects of the battalion led by general Custer arose directly from dysfunctional processes common in warfare; namely the transition from tactical stability to disintegration. Fox has shown that the historical accounts were biased and inaccurate. Archaeology provides a new objective source for interpreting these events.

If we are serious about presenting the Battle of the Boyne battlefield site, then such a programme of excavation is essential for interpretive puposes. Already, the discoveries in the river at Staleen have pinpointed an area of battle never before highlighted. In contrast to the limp legal protection afforded the archaeological park, recent political events could see the battle site receive a higher profile and level of protection. Already movements emanating from the Department of Foreign Affairs in the Republic might stimulate the creation of a programme similar to that now in operation in Montana.

87. R. Fox, *Archaeology, history and Custers last battle* (Oklahoma, 1993).

88. D. Scott, R. Fox, M. O'Connor and D. Harmon, *Archaeological perspectives on the Battle of Little Big Horn* (Oklahoma, 1989), pp 24-35.

CHAPTER 7
THE EIGHTEENTH-CENTURY ECONOMIC BOOM

7A Introduction

If it is claimed that the Irish landscape essentially derives from the eighteenth century,[1] the observation highlights the dramatic changes which occurred at this time. The post-Williamite period in Ireland witnessed the creation of a system of estates eliciting a rural landscape of demesnes, farms and fields. Whether these estates were of long standing, recently gained due to seventeenth-century expropriations or acquired purely as a business speculation, agriculture was re-organised on a fully commercial basis within all of them.[2] With the market economy came improvements in trade and communications. Running through this period of economic boom was the diminution of Catholic rights under the penal laws in favour of a now firmly established Protestant ascendancy. This chapter examines the impact of this pivotal century on the study area, looking at four principal themes: estate management (7B); agricultural development (7C); communication improvements (7D) and the legacy of the penal laws (7E).

The eighteenth century was a time of stability in Ireland. The embattled profile of defensive towerhouses were replaced by grand houses with a domestic spirit.[3] The resident owner maintained a home-farm and created an ornamental park, or demesne, as a setting for his mansion. From the middle ages, demesnes were the lands held by the manor for its own use and occupation. While retaining their primary function as home farms, they went through a process of landscape ornamentation in the eighteenth century . This transformation was inspired by ideas from abroad, and landowners grew increasingly aware that the countryside around their house could be designed on a large scale. Demesne components included tree-lined approaches with complex avenues radiating across the landscape, field boundaries lined with trees, woodland planted in blocks, kitchen gardens in walled enclosures isolated from the house and lodges at the demesne gates.[4]

The improving impetus arose from concern about the precipitate loss of trees in the turbulent seventeenth century. Acts were passed to promote tree planting by landlords or enforcing tenant tree planting requirements.[5] Landowners and tenants

---

1. L. Cullen. 'Man, landscape and roads: the changing eighteenth-century landscape' in W. Nolan (ed.) *The shaping of Ireland* (Dublin, 1988), pp 123-36, see p. 124.

2. R. Buchanan, 'Field systems of Ireland' in A. Baker and R. Butlin (ed.) *Studies of field systems in the British Isles* (London, 1973), pp 580-618.

3. J. Andrews, 'Land and people, *c.* 1780' in T. Moody and W. Vaughan (ed.), *A new history of Ireland iv, the eighteenth century: 1691-1800* (Oxford, 1986), pp 236-64, see p. 257.

4. T. Reeves-Smith, 'Demesnes' in F. Aalen, K. Whelan.and M. Stout (ed.) *Atlas of the Irish rural landscape* (Cork, 1997), pp 197-205.

5. R. Tomlinson, 'Tree planting by tenants in county Down during the eighteenth and nineteenth centuries' in *Ir. Geog.*, xxix (1996), pp 83-95, see pp 83-4; E. McCracken, 'Tree planting by tenants in Meath 1800-1850' in *Riocht na Midhe*, viii (1987-93), pp 3-20.

were encouraged by premiums from the influential Dublin Society to construct hawthorn hedges with trees planted at regular intervals. The Dublin Society provided a total of fifty-five million pounds in premiums for trees planted between 1766 and 1806.[6] The planting of newly introduced hardwood species was also encouraged. The small amount of woodland which survives in the Boyne Valley is largely a legacy of the eighteenth century.

7B Estate Landscape

7Bi – Estate Management In the Bend of the Boyne the century of peace which followed the Williamite wars saw the creation of the current enclosed landscape of farm, field and demesne. The main medieval estate blocks survived into the early eighteenth century. In the early 1700s much of the land in the Bend of the Boyne constituted an outlying part of the Moore estate (the major exception was the parish of Dowth which continued to be held by the Netterville family). During the eighteenth century, the Moore estate was leased to a number of speculative middleman interests, largely based in the city of Dublin. The first edition Ordnance Survey 1:10,560 maps of 1837 provide a view of the Boyne valley landscape as it had evolved in the eighteenth century under these substantial middlemen and landowners. Demesnes at Dowth and Oldbridge were complemented, on a less elaborate scale, by landscaped grounds at Newgrange, Rossnaree, Staleen and Knowth (fig. 7.1). Mansions were the centrepieces in these landscaped demesnes surrounded by enclosed farms and connected to their markets by new roads and the Boyne navigation canal.

These dramatic landscape changes are exemplified by three estates in the Bend of the Boyne; the Netterville estate at Dowth; the Campbell/Caldwell estate at Newgrange and the Coddington estate at Oldbridge. Estate records are a key source in chronicling the transformation of the landscape during this period.[7] The shaping of these estates and their constituent farms involved leases from landlords to tenants and strategic marriage arrangements. A useful by-product of the penal laws affecting property was the creation of the Registry of Deeds, established in 1704 to allow all land transactions and conveyances to be registered.[8] A key source material for this period in the Bend of the Boyne are the resulting deeds, the memorials of which are held in the Registry of Deeds, Dublin. The Caldwell and Coddington estate papers in the National Archives also provide valuable insights into the formation of the eighteenth-century landscapes.

---

6. W. Smyth, The greening of Ireland – tenant tree-planting in the eighteenth and nineteenth centuries' in *Irish Forester*, liv (1997), pp 55-72, see p. 59.

7. W. Smyth, 'Estate records and the making of the Irish landscape; an example from county Tipperary' in *Ir. Geog.*, ix (1976), pp 29-47.

8. W. Nolan, *Tracing the past: sources for local studies in the Republic of Ireland* (Dublin, 1982), p. 69.

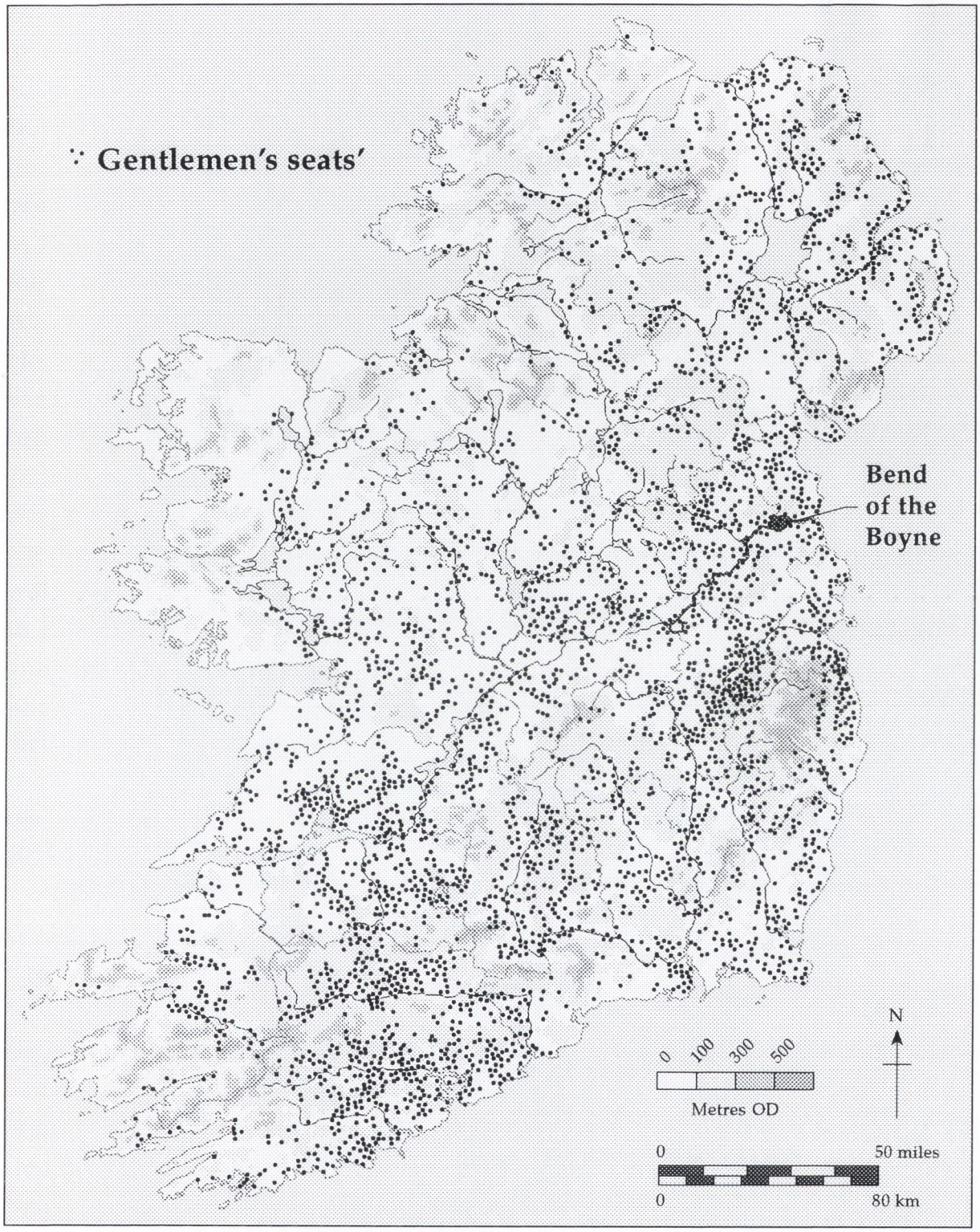


Fig. 7.1 'Gentlemen's seats', 1785 from Vallancey's 'The royal map of Ireland'. The Liffey, Lee and Blackwater valleys are most densely settled. 'Gentlemen's seats' in the Bend of the Boyne are part of an even distribution in counties Meath and Louth (after Andrews, 1986).

7Bii – The Netterville estate The most conspicuous development on the north side of the Boyne was the development of Dowth demesne and the enclosure of its adjacent farms in the first half of the eighteenth century. The medieval manor of Dowth had been held by the Netterville family since the thirteenth century. The transformation of the manor lands in the first half of the eighteenth century was principally the work of Viscount Nicholas Netterville who succeeded to the property in 1727 following the death of his Catholic father. Nicholas had spent two years in the university of Utrecht, returning to Ireland to take over his father's property in August 1728. After conforming to the established church, he took his seat in the House of Lords in the following year.[9] He married Catherine, only daughter of Samuel Burton of Burton Hall, county Carlow in 1731.[10] Their marriage settlement contains the earliest reference to the 'mansion house' and 'demesne' of Dowth.[11] A series of subsequent deeds chronicle the creation of a landscaped parkland around this mansion called Dowth Hall, which would not be definitively mapped for another hundred years (fig. 7.2). A 1734 marriage settlement describes the 'paddock wall' and 'the long walk' which formed a boundary to the 'meadow at the Boyne'.[12] In 1736 the limits of a particular farm are described as being bounded on the east with Lord Netterville's 'new lane', 'grove' and 'the land called glebeland' and on the north with the 'great lane or avenue leading through Dowth to the lands of Newgrange'.[13] A deed of 1750 refers to land in Proudfootstown that bounds in the south with the 'paddock wall' of Dowth (providing a location for this feature) and the 'new walk ditch leading to the Boyne'.[14] The mansion was obviously built before 1731: over the next twenty years, its demesne was created.

The new mansion of Dowth Hall and its demesne turned its back, metaphorically speaking, on the medieval castle (fig. 7.2). The new residence faced east towards Drogheda and was separated from the old manorial centre by a plantation of trees. Dowth Hall is a plain rectangular block with one 'show front' set on a ridge above the Boyne river. The main facade is two storeys with five bays. It too is probably the work of George Darley, a mason architect who, in 1767, built the Netterville's town house in Dublin.[15] An axial vista to the rear with pleasure grounds incorporated two small neolithic passage tombs. An orchard was planted behind the medieval tower house and church. Eight acres of parkland were delimited in an elongated oval shape

---

9. Enrolled in a convert roll date 12 November, 1728, see E. O'Byrne (ed.), *The convert rolls* (Dublin, 1981), p. 211.

10. T. Sadleir, *Georgian mansions in Ireland* (Dublin, 1915), p. 63.

11. Lord Netterville to Samuel Burton 1731, R.D. volume 69- page 199 - deed 47900.

12. Patrick Evers to Matthew Warren 1734, R.D., 82-530-58890.

13. Lord Netterville to John Farrell 1736, R.D., 86-64-59336.

14. Lord Netterville to Sarah Walsh 1750, R.D., 144-11-96241.

15. C. Casey and A. Rowan, *The buildings of north Leinster* (London, 1993), pp 228-30.

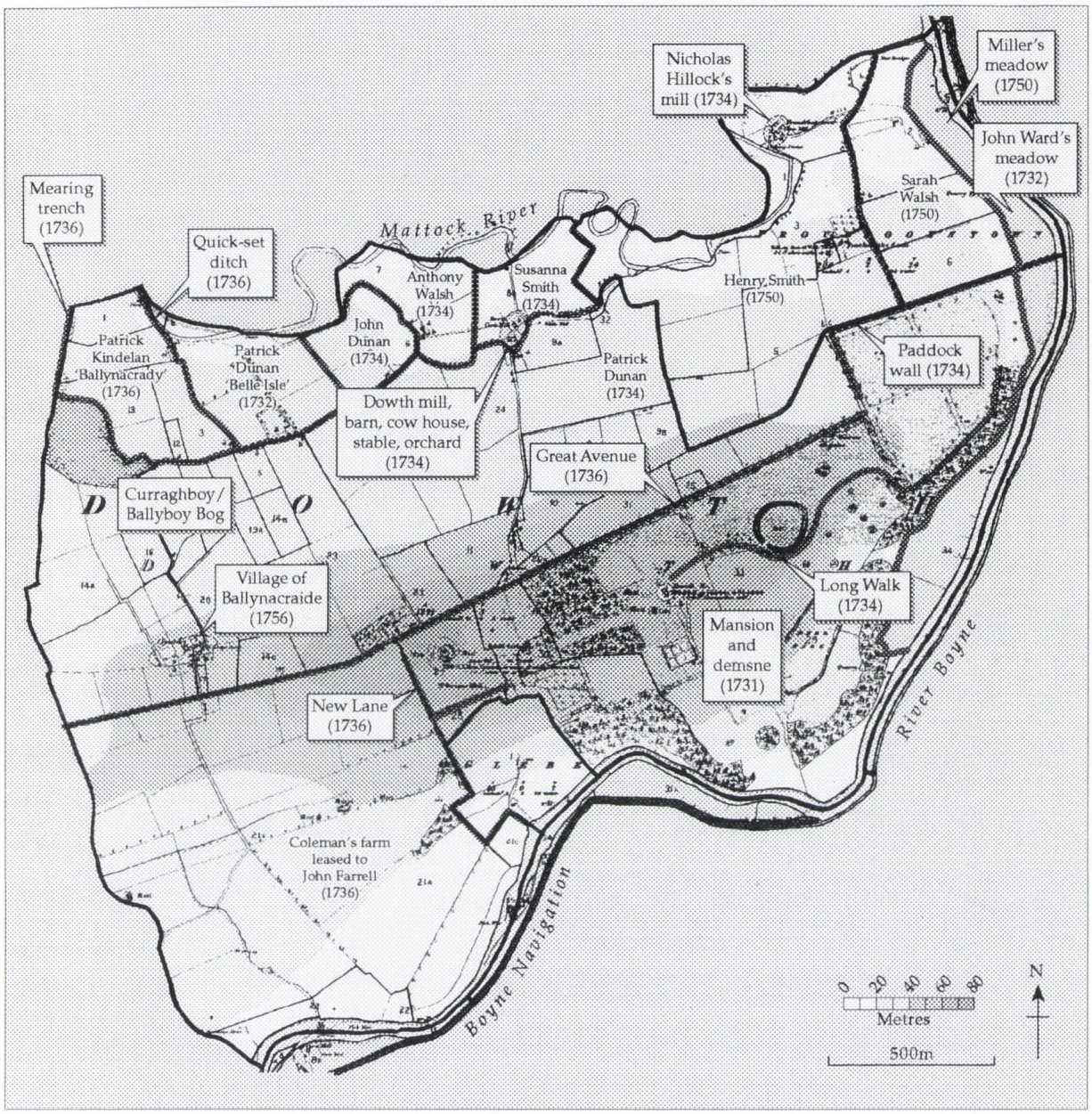


Fig. 7.2 Dated features at Dowth (1837 OS 1:10,560 sheet, detail based primarily on Registry of Deeds).

and bounded by a row of trees to form the deerpark between Dowth Hall and the Boyne. The only true ornamental feature was the old race course. This was a parkland of over fifty-seven acres in area divided into four rectangles by parallel lines of trees. The road from Dowth to Proudfootstown has three right angle turns to allow for this race course. A lodge marks the north-west entrance – probably a nineteenth-century addition.

Once the area for the development of Dowth demesne was decided upon and the work well in progress, the creation and enclosure of estate farms proceeded between the demesne boundaries and the river Mattock. Probably owing to these building projects, the Dowth estate was £11,000 in debt by the 1730s which led to the sale of Netterville's Westmeath property in Ballymore in 1739 and the subsequent vesting of part of the Dowth estate in the hands of trustees. Leasing of the manor was an immediate source of funding for the estate. At least eight leases, ranging from eight to thirty-one years duration, were issued to Catholic tenantry in the 1730s. There is no cartographic record for the Netterville estate until the 1830s so we are dependent on the eighteenth-century deeds for descriptions of the leased property (fig. 7.2).

The holdings vary in size from 74 acres on Sarah Walsh's farm to Luke Hall's 12 acre holding.[16] These were enclosed with 'drains' and 'quick set ditch[es]'.[17] A wide variety of agricultural practices are attested to by references in the deeds to 'arable', 'meadow', 'paddock' and 'orchard'.[18] Every lease specified the right of the tenant to

16. Lord Netterville to Walsh 1750, R.D., 144-11-96241. Did demise and set unto all that and those of the townland of Proudfootstown then in the possession of Sarah Walsh... 74 acres mearing and bounding on the east with the river Boyne south with the paddock wall of Dowth and the new walk ditch leading to the river Boyne on the west with Henry Smith's farm on the north with Littlegrange as also the park or close commonly called or known by the Miller's meadow and joining the river Boyne 2 acres formerly held by Ita Kelly was on two parks or parcels of land adjoining the lands of Proudfootstown in the west lately held by the widow Smith now in the possession of Sarah Walsh containing 22 acres... one acre of bog on the lands of Ballyboy joining all that farm formerly held by Luke Smith... 58 acres... with 16 acres in Ballyboy; Lord Netterville to Hall 1749, R.D., 136-503-92249. Lands of Ballynacrade and part of the bog of Ballyboy formerly in the possession of Thomas Cunningham containing 12 acres... mearing on the east to James Dungan's holding on the south to the cabbins and gardens in the possession of Kindelan and Dungan... 31 years for yearly rent of £6.

17. Lord Netterville to Dunan 1732, R.D., 82-249-57710. Lord Netterville and Patrick Dunan in 1732 for that part of the lands lately called Bell Isle... mearing on the east with John Dunan's farm on the south with the drain leading from the bog of Balliboy to the manor mill of Dowth on the west with the quickset ditch that lies on the east side of Patrick Kindelan's farm in Ballyboy and on the north with the river Mattock and part of the lands of Littlegrange... containing 40 acres of arable land together with one acre of the bog of Balliboy then lately likewise in his possesion... to hold for thirty-one years... and also the meadow at the Boyne commonly called John Wear's meadowfrom the Boyne up to the paddock wall and also the path of the long walk which lay between the said paddock wall and Boyne containing in all about three acres and half and... for yearly rent of twenty shillings per acre for the above mentioned twenty acres and two pounds for the acre of bog also for the above meadow fifteen shillings; Lord Netterville to Kindelan 1736, R.D., 83-347-59215. ...All that and there part of Ballynacrady by then formerly in tenure and occupation of Richard Heany and John McNally containing 23 acres... one part of the lands of Balliboy mearing on the east with a quick set ditch, that leads from the drain of Ballyboy aforesid northerly on the south to part of the said drain on west to a new ditch made between the said premises and the said bog of Ballyboy and on the north with a ditch leading from the quickset ditch down the mearing trench between Dowth lands and the lands of Ballfaddock and also one park of land that lies on the south side of the drain and the boundary on the east to the houses and gardens near the said drain on the south to a ditch separating the said park from an enclosed piece of ground on the west to a part of the said lands formerly set to Peter Dungan and William Reilly and on the north with part of a said drain... containing by a late survey 19 acres... to hold for 31 years at 9 shillings per acre.

18. Lord Netterville to Dunan 1732, R.D., 82-249-57710; Lord Netterville to Smith 1734, R.D., 82-530-58890. Susanna Smith of the mill of Dowth... all that part of the parcel of land now or lately in possession of Elizabeth Smith, widow containing... 25 acres together with dwelling house wherein the said Smith now dwells, the barn, cow house, stable and orchard thereunto belonging as also two other houses or tenements on the said premises, one of which joins Nicholas Hillock's mill and the other the said orchard

exploit an acre of bog at Ballyboy. The holdings are often identified by names that are no longer in use such as 'Belle Isle', 'Dremsale', 'Strevade' and 'Listiveran'.[19] There is a range of buildings on these holdings. 'Cabbins and gardens' are described at Ballynacrade, a placename denoting a clachan or farm village.[20] An impressive cluster of buildings is recorded beside Dowth mill, including a 'dwelling house', 'barn', 'cow house', 'stable' and two other houses or 'tenements'.[21] There are corn mills at Dowth and Proudfootstown; at there latter there is also 'the old tuck mill in the parcel of land called Listiveran'.[22] At least five surnames mentioned in these deeds were still present on the same holdings in the 1830s as recorded in the Tithe Applotment Books; Heeny, Cunningham, Kelly, Farrel and Smith.[23]

7Biii – The Campbell/Caldwell estate On 14 August 1699 Alice Moore, Countess Dowager of Drogheda, leased the lands of Newgrange for 99 years to Charles Campbell, a Williamite settler.[24] Campbell also shared a lease for the term of 75 years with Henry Hall for the lands of Balfeddock that same year.[25] Campbell was described by Edward Lhywd as the 'gentleman of the village who had employed his servants to rob stone from the tomb at Newgrange'.[26] Campbell continued to undertake numerous services for the Moore family.[27] Having acquired the lands of Newgrange and Balfeddock, Charles Campbell built a 'mansion' on the property

---

with stang of turf bog on the bog of Ballyboy... mearing on the north with Littlegrange, on the east with a part of Dowth land formerly in possession of Henry Smith on the west with part of the land of Dowth aforesaid now in the possession of Mr. Anthony Walsh and on the south with Pat Dunan's farm together with all and singular appurtenances to hold to Susanna Smith during the term of 31 years... under the yearly rent of 7s per acre together.

19. Lord Netterville to Dunan 1732, R.D., 82-249-57710; Lord Netterville to Kelly 1748, R.D., 130-314-89197. Those parcell lands commonly called the paddock and Dremsale containing 38 acres as also the pieces or parcels of lands commonly called the Strevade containing 5 acres being all part of the lands of Dowth... for 10 years at a yearly rent of £9-6s; Lord Netterville to Kelly 1750, R.D., 142-297-95575. The cornmill of Proudfootstown and 14 acres with the house... improvements... there belongings to the old tuck mill in the parcel of land called Listiveran adjoining and there to two weyres... fishery together with the parcel of land called the paddock and demesne and the field called the Strevade.

20. Lord Netterville to John Farrell 1736, R.D., 86-69-59336. That farm or parcel of land commonly called Coleman's farm with the houses, tenements and garden thereon belonging with one house and garden in the village of Ballynacraide, an acre of Curraghboy containing turf and marl... then in the possession of John Farrell... containing 170 acres... being in the manor of Dowth. Its mear and boundary on the east with Nicholas, Lord Netterville's new lane, grove and the land called Glebe land, on the river Boyne and on the north with the Great Avenue leading through Dowth, to the lands of Newgrange, on the west with Newgrange; Lord Netterville to Kindelan 1736, R.D., 83-347-59215; Lord Netterville to Hall 1749, R.D., 136-503-92249.

21. Lord Netterville to Smith 1734, R.D., 82-530-58890.

22. Ibid., Lord Netterville to Kelly 1750, R.D., 142-297-95575.

23. N.A., TAB 22/48 for Dowth parish.

24. N.A., Caldwell Papers, M1095/2/2:7.

25. N.A., Caldwell Papers, M1095/2/8 and M1095/2/2 iii.

26. Trinity College Dublin, Ms 883.ii, p. 10.

27. Earl of Drogheda to Charles Campbell 1721, R.D., 33-264-20275.

with 'outhouses, coach houses, stables, orchards and gardens'.[28] This settlement is identified on a map of the Caldwell estate in 1766. Caldwell commissioned the noted cartographer Bernard Scalé to map his lands and on this map the Campbell property corresponds with the location of Newgrange House. The origins of this map are discussed below.[29] A Caldwell estate map in 1781 contains a sketch of this mansion at Newgrange (fig. 7.3).[30] This shows a two story building with three bays, two chimneys and a semi-circular forecourt. It also shows three cottages north of this, two with chimneys, one without and another two storey, three bay building which is probably Broe House. The 1837 edition 1:10,650 OS sheet shows blocks of planting to the north of Newgrange House and limited roadside planting (fig. 7.6). These probably date from the eighteenth century. In 1744, Isaac Butler saw Newgrange House 'buried among trees'.[31] The gazebo/ice house which still lies to the east of Newgrange tumulus is shown on the 1837 map and probably dates from the eighteenth century.

The middleman Charles Campbell issued leases in the early 1720s in the townlands of Balfeddock, Newgrange and Monknewtown. These farms varied in size from 215 acres held by of Francis Berrill at Newgrange, to a 152 acre holding at Peter Ever's farm at Belfeddock, and a twenty acre holding leased to Edward Hall at Rossin in 1724.[32] Rossin is a settlement off the main Slane road on the borders of Balfeddock and Monknewtown. These lands had only recently been enclosed. The deeds refer to 'a ditch lately made', 'a new ditch adjoining to the ditch on the highway' at Balfeddock.[33] Reference to 'a little bridge lately made' suggests

28. Burton to Netterville 1734, R.D., 77-448-54314.

29. N.L.I., Manuscript map, 21 F78 (63), A survey of part of the estate of Charles Caldwell in the counties of Meath and Louth with names of tenants, by B. Scalé, 1766.

30. N.A., Caldwell Papers, Manuscript map, 10952/2/56, A map of that part of Newgrange wasted and lost by navigation with a draft of the old and new canal made near the river Boyne... being part of the estate of Andrew Caldwell Esq. taken and surveyed by order and appointment of Mr. Robert Berrill the 21st day of January, 1781.

31. Quoted in C. Ellison, *The waters of the Boyne and Blackwater* (Navan, 1983), p.102.

32. Charles Campbell to Francis Berrill 1724, R.D., 42-435-26956. 215 acres... of the town and lands of Newgrange now in the possession and tenure of Frances Berrill and his undertenants together with the rectorial tithes... 31 years for the yearly rent of £9-10s payable half yearly. Incidentally, this is the earliest reference to the placename 'Rossin' which is still in use but is not a local townland name; Charles Campbell to Peter Evers, 1724, R.D., 42-432-26923. Set and farm let unto the said Peter Evers all that part and parcel of the said town and lands of Balfaddock now in his possession containing 152 acres... 31 years under yearly rent of £6.10s; Charles Campbell to Edmund Hall 1724, R.D., 40-517-27194. All that part or parcell of the town lands of Ballfaddock, containing 20 acres... in his possession on the south side of the highway leading from Mattock bridge to Slane and partly enclosed by a new ditch adjoining to the ditch on the highway... 20 acres at £8.10s p.a.

33. Charles Campbell to Henry Smith 1723, R.D., 42-432-24711. Henry Smith, carpenter in 1723 farm lett two houses on the north side of the street of the town of Balfaddock, in one of the houses John Hall now dwells and in the other of which said houses Patrick Hall lately dwells with the outhouses and garden there belonging except the little ash grove and the ground between it and the street and the house joining Peter Evers garden ... on the lands of Balfaddock and the east side of the ditch lately made beginning at the highway leading from Mattock Bridge to Slane and ending in the little bridge lately made... near Peter Evers garden in the town and lands of Balfeddock and held by the Patrick Hall then in possession of Henry Smith and of the said Hall his undertenant containing 48 acres... for the term of three lives at an annual rent of £28; Campbell to Edmund Hall 1724, R.D., 40-517-27194.

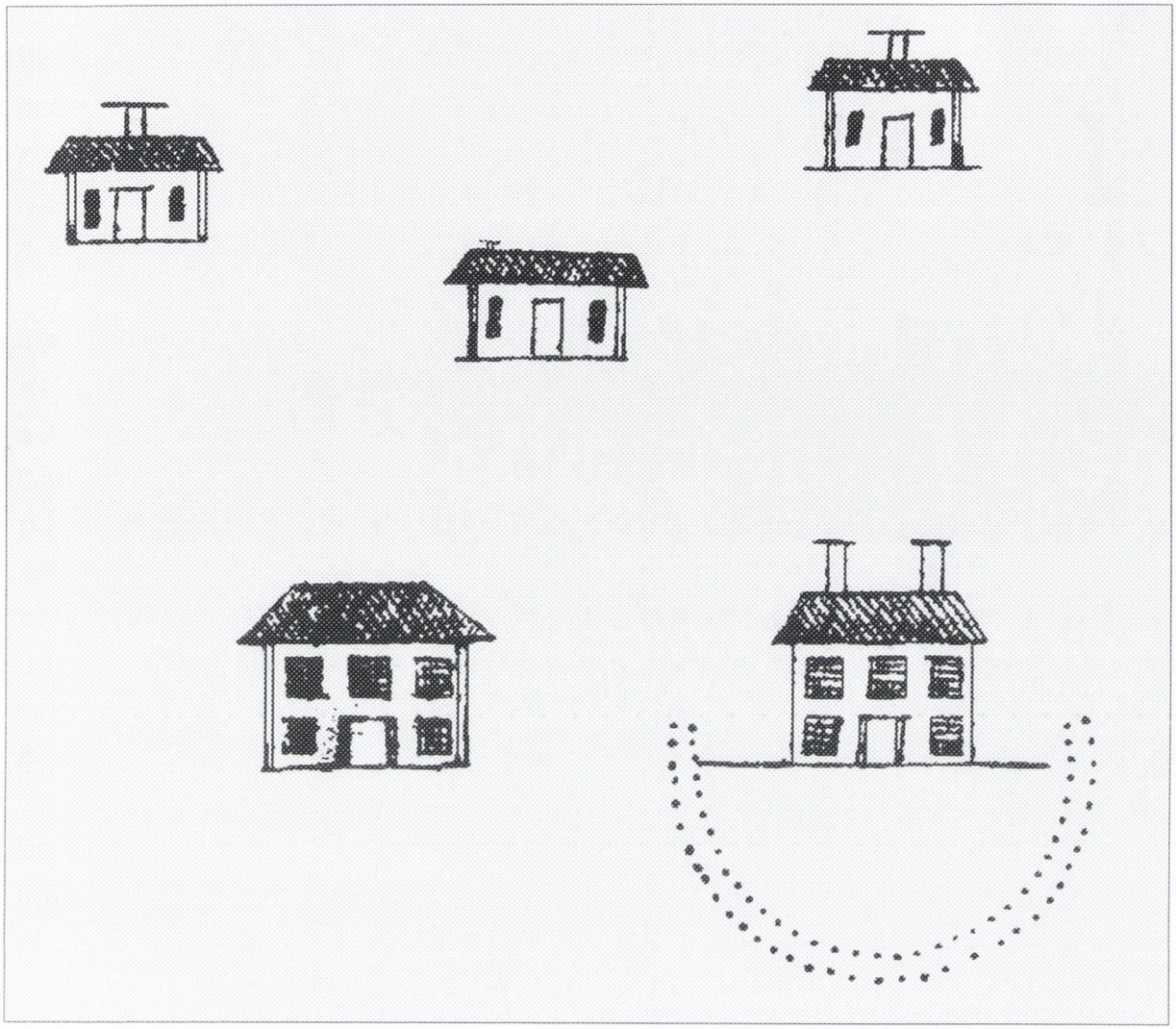


Fig. 7.3 Newgrange House in 1781 (bottom right) and houses in the vicinity (N.A. Caldwell Papers, Manuscript map, 10952/2/56).

improvements to the road network.[34] Two memorials indicate that mixed farming is being practised at an intensive level. Mention is made of 'a winter crop' and a 'spring crop', 'cattle' and the use of a 'plough harness' and 'harrow'.[35] There are several references to houses for both tenants and sub-tenants which had 'out houses' and 'gardens' and one had a 'little grove'. There is evidence for another clachan alongside a 'street' in the town of Balfeddock.[36]

In 1725, the ownership of Newgrange and Balfeddock changed. In his last will and testament, Campbell left them to his grandson, Benjamin Burton of Burton Hall in county Carlow.[37] In 1734 Burton leased this property and the surrounding 191 acres to Nicholas Netterville of Dowth who was an in-law through marriage with Catherine Burton.[38] Meanwhile, Andrew Caldwell, brother-in-law of Campbell, had purchased Knowth in 1729.[39] In 1766 Benjamin Burton sold the lands of Newgrange and Balfeddock to Andrew's son Charles Caldwell for £8,000. The Caldwell estate now embraced the townland of Knowth which at that time included the present townland of Crewbane, Newgrange and Balfeddock with parts of Monknewtown and Littlegrange on the north side of the river and Gilltown on the south side of the Boyne.

The sub-division and additions to the estate started by Charles Campbell were further encouraged by the Caldwell family. As part of this programme of landscape management, Charles Caldwell commissioned Bernard Scalé to undertake a survey of part of his estates in counties Meath and Louth at a scale of forty perches to an inch. Antiquities were included on the map making this the first cartographic record of the passage tombs of Knowth and Newgrange. The main function of this map was to identify the tenants and the boundaries of their farms on the estate. Their settlements are identified but there is little indication of fields or land use. Mills are present at Rossnaree and Newgrange. The contemporary network of roads was essentially in place by this time. This important map allows us to date the buildings extant today that are on Scalé's map and provides an approximate date for buildings that are on the OS 1837 map but not on the earlier map (fig. 7.4).

---

34. Campbell to Henry Smith 1723, R.D., 42-432-24711.
35. Peter Evers to Frances Farrell 1733, R.D., 79-91-54734. Articals of intermarriage between Peter Evers and Frances Berrill of Newgrange re-marriage between John Evers 1733 and Jane Berrill one half of farm together with one half of winter crop... spring crop...one half of the cattle... one half of his plough, harness and harrow... John and Jane will live with them as long as they please... should they separate provide convenient house and offices for his son John Evers; Edward Hall to Edward Norris 1727, R.D., 86-142-59685. Articles of marriage between Edward Hall, Rossen, farmer and Edward Norris of Rootstown... 1727... marriage between Luke Hall and Mary Norris... half of crop and half of cattle... etc. give half of the lands of Balfaddock incl. 4 acres of meadow in Monknewtown with the white house and croft thereto annexed until the expiration of the leases... the said Edward Hall obliges himself to extend to Luke, his wife and children with meat, drink, washing and lodging and other necessities during the lease if they are content to share with them.
36. Campbell to Henry Smith 1723, R.D., 42-432-24711.
37. N.A., Caldwell papers; M 10951/2/2vi.
38. Burton to Netterville 1734, R.D., 77-448-54314; Wesley to Campbell 1722, R.D., 33-370-20581.
39. Edward, Earl of Drogheda to Andrew Caldwell 1729, R.D., 62-410-43431.

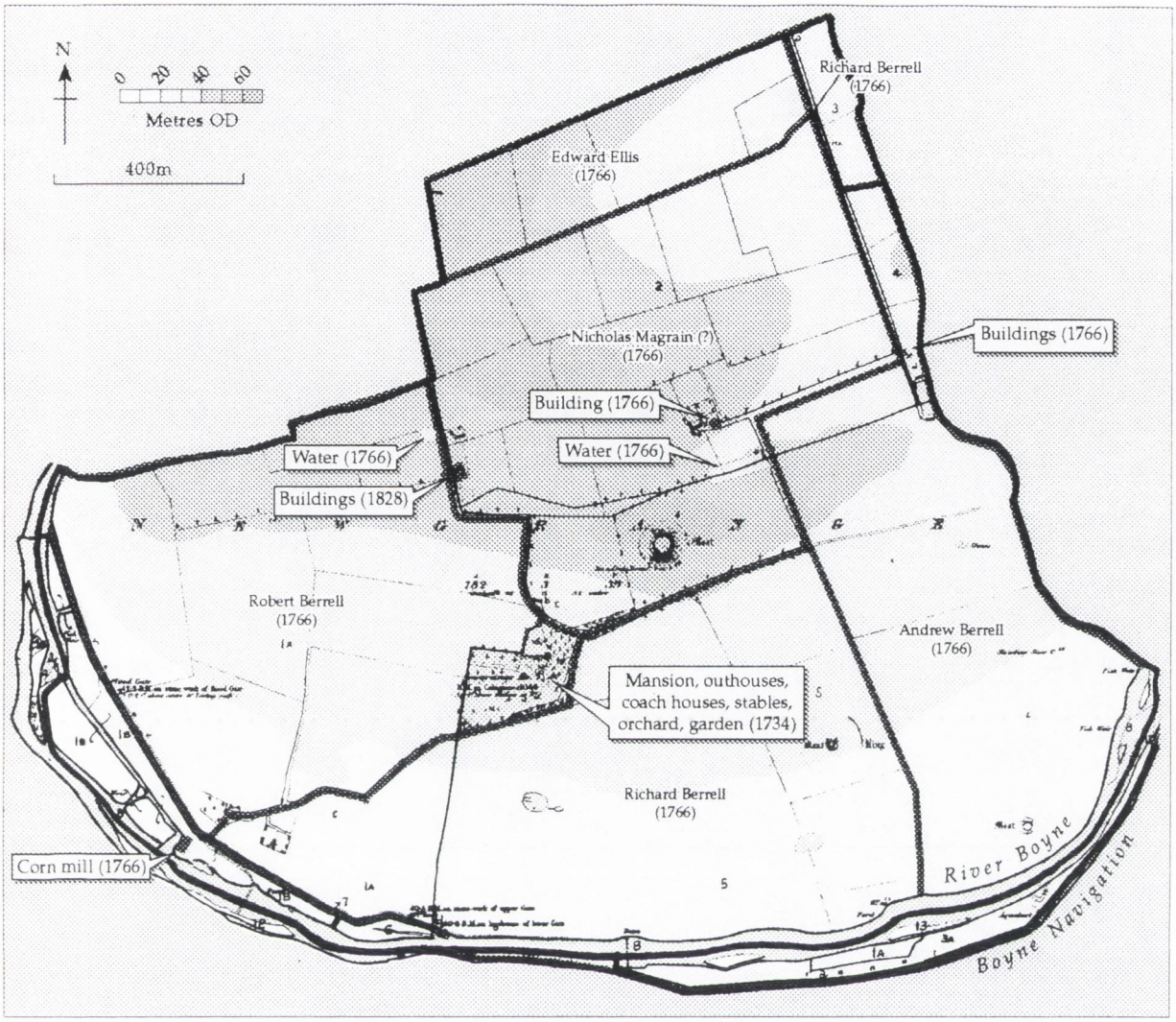


Fig. 7.4 Dated features within Newgrange estate (1837 OS 1:10,560 sheet, detail based primarily on estate maps and Registry of Deeds).

This map allows us to see the transformation that had taken place on the lands along the Boyne since they were leased by the Moores at the turn of the eighteenth century. It also sheds light on the evolution of the townland system. A general trend which becomes apparent from an analysis of both the deeds and cartographic sources is the gradual sub-division of the landscape that takes place as communities develop, rear families and divide resources. The present townland of Crewbane is identified in 1766 as being part of a greater Knowth townland. The boundaries of the farm of Robert Berrell on 297 acres coincide with the present townland of Crewbane, except for a portion of land in the north-east corner of the townland which is bisected by the road from Knowth to the main Slane road and shown in 1766 as part of Monknewtown. In 1806 these lands were incorporated into the present townland of Knowth when they were leased to John Cooper of Beamore.[40] A pocket of bog is shown along the northern boundary of the farm and is apparent today. Four buildings are shown on the map in the centre of Robert Berrell's farm, two of which coincide with buildings on the first edition OS map. The most southern building on the 1766 map, Crewbane House, is still occupied (see chapter 8).

The eastern townland boundary of Knowth differs from that depicted on the first edition OS map. The irregularity of the eastern boundary coincides with the presence of low earthworks in these fields. Scalé's map shows that the farm of 142 acres at Knowth was held by Andrew Maguire. This is the same individual who received a premium of £12 from the Dublin Society for ditching 346 perches in 1768.[41] A group of buildings on the farm corresponds to the present Knowth House and out-buildings, although Knowth House had not been built at this time. Some further structures are depicted on the west side of the road opposite the group of buildings. Maguire's farm incorporated the main passage tomb. On Scalé's map, it is shown with a line in the south-west which appears to indicate an opening. If this is correct, then George Eogan was not the first to discover the western tomb.

The townland boundaries of present day Newgrange correspond with those on Scalé's map. Two tumuli are marked at Newgrange, the main monument and the satellite mound south of this on the bank of the river. Newgrange is divided into five farms; Robert Berrell, Richard Berrell, Andrew Berrell, Edward Ellis and Nicholas Magrain. The Berrill family were leasing land at Newgrange at least as early as 1724 and re-leased land in 1737 from Benjamin Burton.[42] A group of buildings clustered around the mansion house of Newgrange with outhouses, coach houses, stables, orchards and gardens were willed by Charles Campbell to his grandson.[43] There is

40. Caldwell to Cooper 1806, R.D., 604-369-415265.

41. McCracken, 'Tree planting', p. 7.

42. Campbell to Frances Berrill 1724, R.D., 42-435-26956; Burton to Berrill 1737, R.D., 88-390-63015. The inconsistencies in the spelling of this surname arise from inconsistencies in the sources.

43. Genealogical Office, Ms no. 182, N.L.I. mic. p. 8309.

another building and a pond or canal like feature north-east of Newgrange passage tomb. A third group of buildings on Andrew Berrell's farm lies along the eastern townland boundary where there is a water feature. A corn mill (Brow mill) existed on the bank of the river on Robert Berrell's land and a section of canal.

The townland of Balfeddock is larger on Scalé's map than is the current townland as it includes part of present day Knowth, and some of the present townland of Balfeddock was part of Monknewtown. Four tenants are shown in this townland on Scalé's 1766 map; Luke Hall, Richard Smith, Edward Ellis, Robert and Richard Berrell. Luke Hall's holding of 20 acres is identified as Rossen.[44] Settlements are associated with only one of these farms; Richard Smith's holding at a T-junction in the south of Balfeddock townland. Shown for the first time on Scalé's map, these are the buildings mentioned in the Smith deeds of 1723.[45] These buildings do not appear on the first edition OS map although some of the enclosed yards correspond to those marked on the 1766 map. The 'street' was not a through road in 1766. There is a new road on the OS map and a new 'village' at Rossin. All the buildings in this cluster post date 1766.

The Caldwell estate extended in 1766 onto the south side of the Boyne into the townlands of Gillltown whose boundaries coincide with the present townland. It was divided into three farms; John Connolly, Matthew Connolly and Richard Smith. There are groups of buildings in each farm. These coincide with those on the first edition OS map. The cornmill site at Rossnaree is indicated on Scalé's map.

7Biv – Oldbridge Estate The Coddington family of Holmpatrick near Skerries in county Dublin acquired the land of Oldbridge and Sheephouse in the 1720s and were certainly in residence by 1724 on land formerly held by Henry Moore, Earl of Drogheda. The Coddington papers refers to a Declaration of Trust by 'John Coddington, Oldbridge,' in 1724.[46] Further, the Drogheda Papers (relating to the Moore estate) refer to a 'conveyance of lands of Oldbridge to John Codington on 18 February 1729'.[47]

The Oldbridge estate is enclosed on three sides by the Boyne (fig. 7.5). This self-contained area was developed according to the principles of eighteenth-century parkland design. These principles strove to set a formal building of some architectural merit – Oldbridge House – in an apparently natural landscape of broad valley parkland and clumps of deciduous trees. The house was placed in a position to afford views of the skyline of Drogheda and the natural plain were used whenever

44. Charles Campbell to Edmund Hall 1724, R.D., 40-517-27194.

45. Campbell to Henry Smith 1723, R.D., 42-432-24711.

46. N.L.I., Reports on Private Collections, ii, Report 21; pp 18-36.

47. N.L.I., Drogheda Papers, Ms 13024.

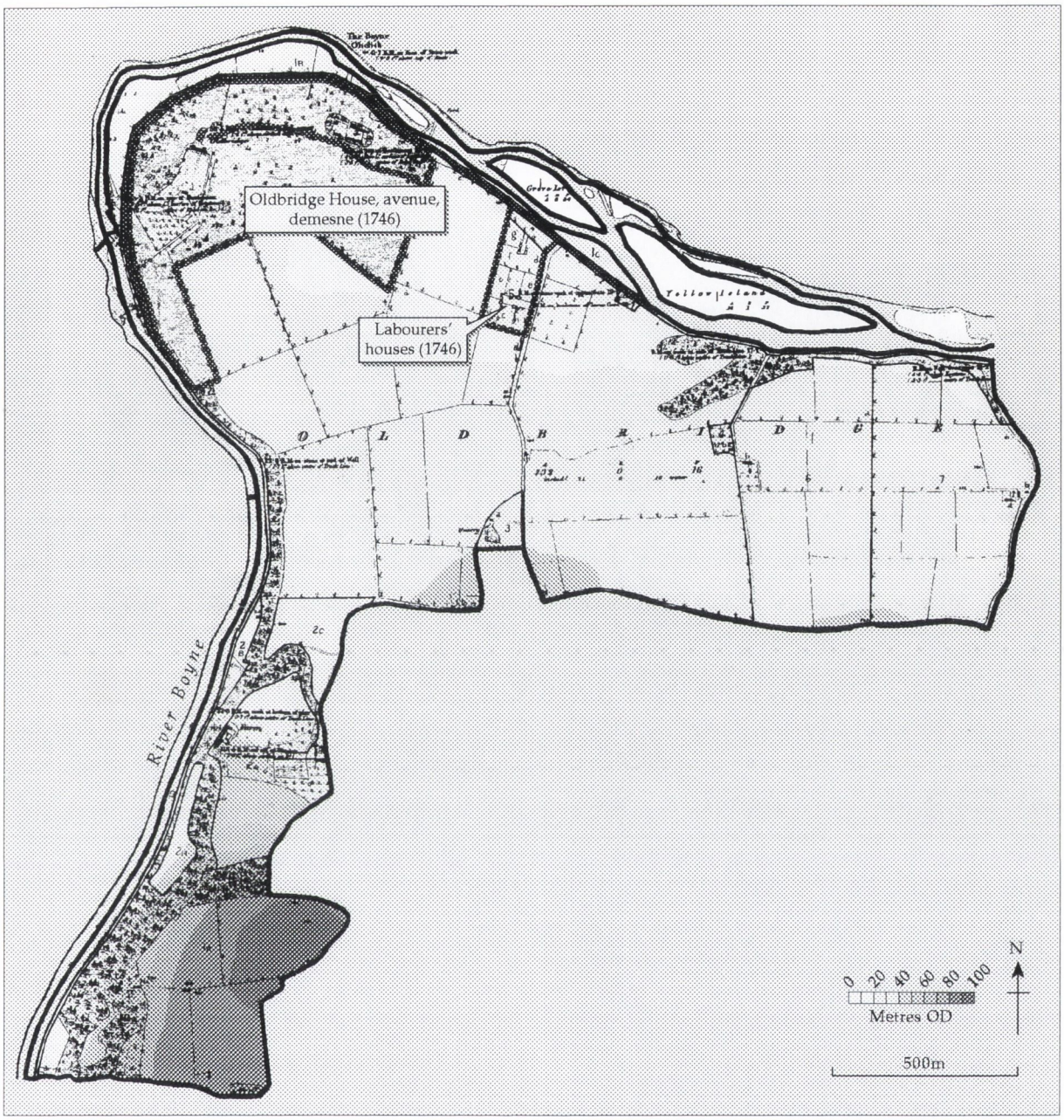


Fig. 7.5 Dated features within Oldbridge estate (1837 OS 1:10,560 sheet, detail based primarily on contemporary paintings).



Fig. 7.6 Detail of painting *The Battle of the Boyne* by Joseph Tudor (*c.*1746), showing the early stages of the development of Oldbridge demesne.

possible. While it has been stated that Dixey Coddington built the present house in 1750, that date is too late.[48] A painting by Joseph Tudor dated 1746 shows part of the Coddington estate (fig. 7.6).[49] The estate is well established at this time with tree lined avenues, mature groves enclosing a courtyard of outbuildings and another group of buildings on the road to Sheephouse. This elaborate landscaping was presumably focused around an existing building. Oldbridge House was obviously built prior to 1746.

Running south-west of Donore is a low ridge of shales which appear in the river gorge at Glenmore and Glen cottage, a rare rock exposure in the drift-covered valley. Glenmore House, belonging to Oldbridge estate, is located on this outcrop above a steep wooded gorge. This house once had a small parkland, with outbuildings and garden. The ruins of the house and outbuildings remain today but none of the trees have been spared, except for those on the steep slope which leads down to the river.

7C Agricultural and Industrial Development

7Ci – Introduction The Cattle Acts of 1663-6 prohibited the export of fat stock into Britain and Irish woollen goods were similarly excluded by high tariffs in place from 1660. But when trading prohibitions were relaxed in the eighteenth century, Ireland's key location between English and American markets gave rise to a thriving provisions trade. Beef production was faciltated by a network of fairs instituted by improving landlords.[50]

Abundant Irish grain harvests in the 1690s created large surpluses for export and the prices were good for Irish farmers in a decade in which harvest failure was general over many parts of Europe.[51] After a period of modest growth – there was an increasing shortage of home-grown grain for the domestic market in the early 1800s – the commercial tillage sector increased rapidly in the second half of the eighteenth century. The Irish Parliament provided a subsidy on domestic grain transported to Dublin in 1761 and in 1784 Parliament passed another act subsidising grain exports and placing tariffs on imports. About three-quarters of the total payments went to the corn counties of the east. Under the stimulus of rising rents smaller farmers found that tillage was more profitable.[52] Arable farming became a major source of employment both on the land itself and on subsidiary corn-based industries such as

48. The architect is thought to be Hugh Darley. See C. Casey and A. Rowan, *The buildings of Ireland; North Leinster* (Dublin, 1993), pp 446-7.

49. A. Crookshank and Knight of Glin, *The painters of Ireland c.1600-1920* (London, 1978), p. 65, fig. 11.

50. K. Whelan, 'The modern landscape: from plantation to present', in Aalen, Whelan and Stout (ed.), *Atlas*, pp 67-103, see 72-3.

51. L. Cullen, 'Economic development: 1691-1750' in T. Moody and W. Vaughan (ed.), *A new history of Ireland iv, the eighteenth century: 1691-1800* (Oxford, 1986), pp 123-58, see pp 134-5.

52. J. Andrews, 'Land and people, *c.*1780' in T. Moody and W. Vaughan (ed.), *A new history of Ireland iv, the eighteenth century: 1691-1800* (Oxford, 1986), pp 236-64, see pp 247-8.

milling. The bounties on corn and flour carried by inland routes to Dublin helped to channel investment into flour mills at inland situations.[53]

Another element of this agricultural 'renaissance' was the potato, which assumed an even greater importance in the eighteenth century. The potato made possible the growing cottier community who could provide for a family by leasing a small field, ready dunged for a one year term.[54] This nutricious, land-efficient crop also permitted the upsurge of flax growing and linen manufacturing in north-eastern Ireland. The Bend of the Boyne lay at the southern margin of the linen weaving zone (see below).[55]

7Cii – Agricultural improvements The impact of eighteenth-century agricultural improvements in the Bend of the Boyne are well documented in Arthur Young's *Tour of Ireland* (1780). Young's account represents the most comprehensive guide to late eighteenth-century Irish agriculture. He visited the Slane area in the summer of 1776. The farms were relatively large by eighteenth-century standards, rising from 100 to 300 acres in the Slane area. Young visited John Baker Holroyd of Monknewtown. Holroyd, the first Earl of Sheffield, also wrote widely on Irish matters in the late eighteenth and early nineteenth centuries including accounts on the manufacturing trade, woollen trade and corn laws.[56] Holroyd's Monknewtown estate had very fine cornland which had been divided into farms from 70 acres to 150 acres in size and let in general for 31 years. He had made large ditches, planting them with 'quicks', round each farm. He had allowed his tenants half the expenses of building inner fences and had also provided a quarry in the neighbourhood and built a large double lime kiln at the centre of the estate. Generally, 'hollow draining' was used in the area:

> The fences about new inclosed pieces and those made in general by gentlemen, are ditches six feet deep, seven feet wide and fourteen inches at bottom, with two rows of quick in the bank, and furze sown on the top, or a dead hedge of brush.

All the ploughing was done with six horses to a plough. The main seed crops were wheat, barley and oats and the yields were relatively high. Crop rotation was practised and the land limed. Although Young was impressed with the improved state of agriculture in the Bend of the Boyne, he was angered by the farmers in the area who burnt their straw, 'for which they deserve to be hanged'. Young also observed that poultry, pigs and cows were plentiful. He records the local practice of tying their forelegs together with straw (súgan) to keep them from breaking into fields. The cottagers grew potatoes in six foot wide ridges with furrows two and a

53. L. Cullen, 'Eighteenth-century flour milling in Ireland' in *Ir. Ec. Soc. Hist.*,iv (1977), pp 5-25, see p. 9.

54. Whelan, 'Modern landscape', pp 85-8.

55. *Ibid.*, p. 79.

56. See, for example, J. Holroyd, *Observations on the manufacturing trade and present state of Ireland* (Dublin, 1785).

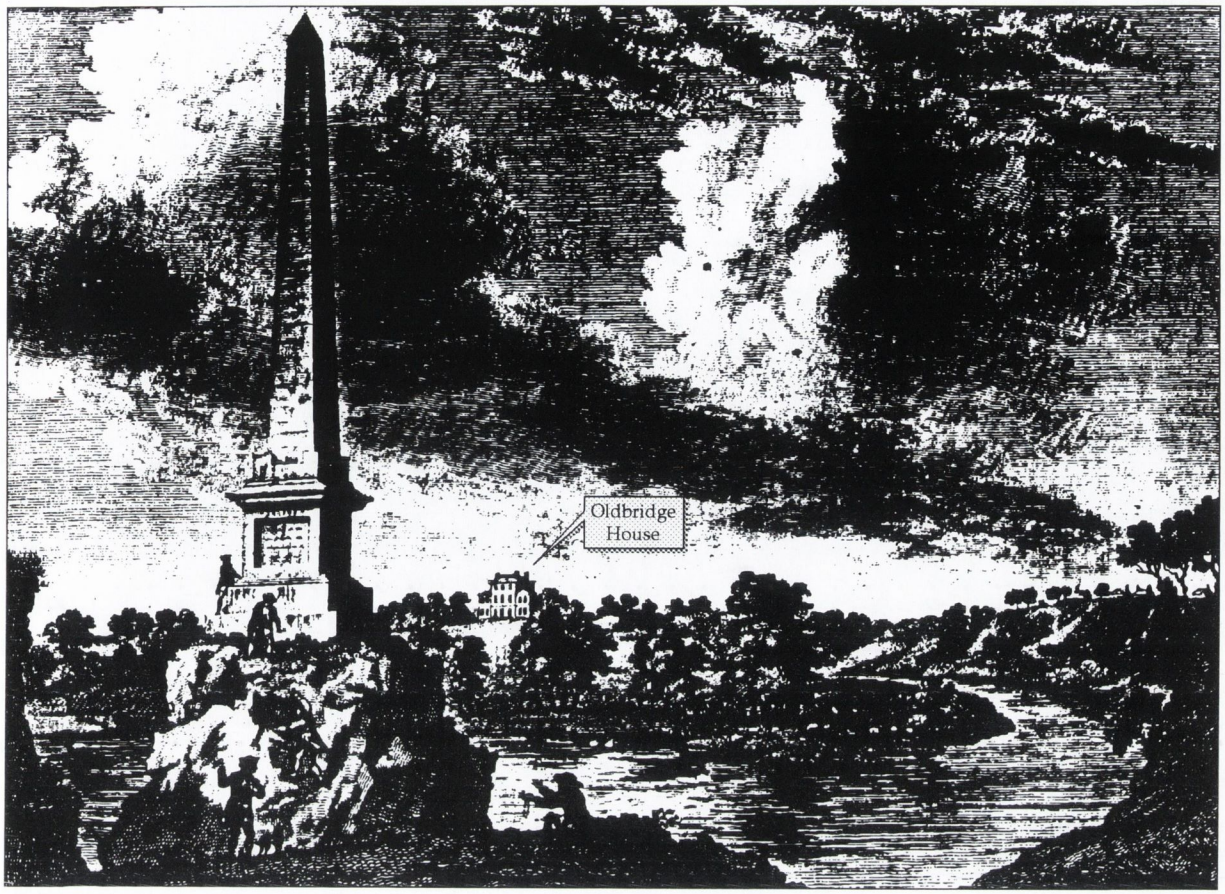


Fig. 7.7 Engraving of Oldbridge House in 1778 by Paul Saudby (the obelisk erected in memory of the Battle of the Boyne is in the foreground).

half feet wide (a description of the efficient lazy bed). Pigs were fed on potatoes alone which was considered more successful than pollard (young shoots of trees). Dairies of 50 to 60 cows were kept for butter. The Kelly farm at Oldbridge had 200 cows, half English, and half Irish breeds.[57]

7Ciii – Milling Milling was one of the most intensive industrial activities in the eighteenth century.[58] Mills had been a common feature of the manorial economy of the medieval period (see above Chapter 5), and the Civil Survey furnishes a count of one hundred mills in an incomplete survey of county Meath in 1654, but these early mills were very small structures grinding for a local market.[59] These mills ground the grain while it was still uncleaned; the bolting or sifting of the ground flour was left to the baker. In the second half of the eighteenth century, larger industrial-style mills were constructed to cope with the escalating demands of the Dublin market. Bounties were granted from 1758 for the transport of grain and flour to Dublin. Meath was the first of the counties to respond to these new bounties with the construction of large industrial mills. The secret of these new mills lay in the addition of processes preparatory and subsequent to, the actual grinding of the wheat. In the new mills bolting or sifting was done mechanically. The bolting mills were large structures. The first were three-storey structures; the later larger mills were at least five storeys high. The wave of mill construction reached its peak during the years of high prosperity associated with the American Revolution and Napoleonic wars.[60]

The capital to establish mills seems to have come from the landed classes themselves. The interest of landlords in milling was part of a wider interest shown by their class in improvement and in the promotion of economic activity in their area. Landlords often had some inherited interest in milling in the form of manorial milling rights. For instance, in a covenant of 1775 between John Chamney of Plattin and William Sharman Crawford of Staleen there is a condition that the grantee grind 'all kinds of grain at the mill or mills at Staleen and pay the accustomed toll for grinding the corn'.[61] There is still a small vernacular mill on the site. (Fig. 7.8). The first really big mill in east Meath was at Slane. It began production in 1766. Viscount Conygham leased a pre-existing mill at the bridge of Slane and fourteen acres of adjoining land as well as the weir on the river to the promoters of the new mill; Blaney Townley Balfour (of Townley Hall, just outside the study area), William Burton and David Jebb. Each invested *c.*£1,500. The construction of Slane mill was

57. A Young, *Tour of Ireland* (London, 1780, reprinted Shannon, 1970), i, pp 37-49.

58. Cullen, 'Eighteenth-century flour milling, pp 5-25.

59. R. Simington (ed.) *The Civil Survey: county Meath 1654-56* (Dublin, 1940).

60. Cullen, 'Eighteenth-century flour milling', pp 8-9, 15.

61. N.A., M 3725, Abstract of Covenant between John Chamney and William Sharman Crawford 1775.

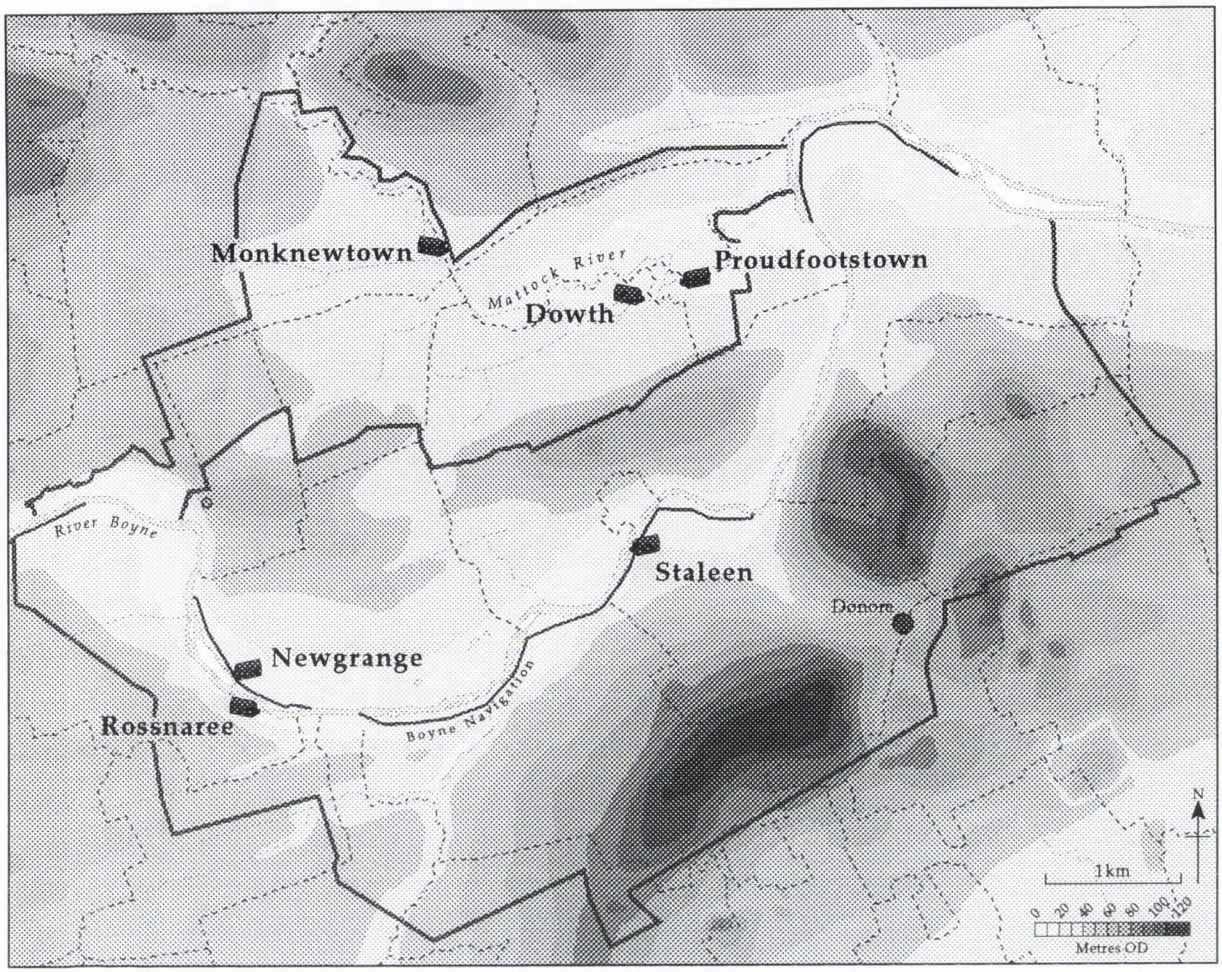


Fig. 7.8 Eighteenth-century mills in the Bend of the Boyne.

well timed to take advantage of the law to encourage the milling of corn and its transport to Dublin. The operations of the modern mill at Slane are described in detail by Arthur Young. The lands within a ten mile radius supplied the mill with grain.[62] By 1838 lands actually in the possession of the mill company had stretched as far east as Crewbane when, in a deed of lease, we learn that David Jebb was advised 'not to dig up or plant any part of the land... bounded in the west by lands in the possession of Slane Mill Company'.[63]

The Caldwell papers and eighteenth-century deeds identify corn and tuck mills on properties in the Bend of the Boyne, as well as the names of the different millers and lands associated with the mills (fig. 7.8). The mills were mainly the older vernacular-style, two-storey buildings which served the local community. The massive mills at Monknewtown and Proudfootstown were redeveloped in the second half of the century to serve a larger market. The 'mill of Dowth' is recorded in a deed of 1734 when it was in the hands of Susanna Smith. This mill had been in the Smith family prior to that date. Accompanying the mill were 25 acres, a dwelling house, barn, cowhouse, stable, orchard and two other dwellings.[64] Subsequently, Susanna Smith married Patrick Evers of Plattin.[65] The 'mill of Dowth' was in the possession of Luke Elcock in 1775.[66] Today only a millstone and traces of a mill race survive from this site.

In 1734 the lands attached to Smith's mill bounded with another mill, that of Nicholas Hillock in Proudfootstown.[67] Hillock is also mentioned as 'Dowth miller' in 1736.[68] There is some suggestion in a lease of 1750 that improvements were taking place at the Proudfootstown corn mill.[69] This memorial also mentions an old tuck mill in the adjoining lands called 'Lestiveran'. Belonging to the corn mill in 1750 was 'the miller's meadow', two acres adjoining the Boyne.[70] Today a large storehouse exists on the site of the mill, but no surviving mill works are discernible.

The Caldwell papers describe at least three mills on the estate between 1721 and 1766. The mill at Rossnaree is the subject of an indenture dated 1721.[71] This mill is shown on the south side of the river on the estate map of 1766 where the present

62. Young, *Tour of Ireland*, i, pp 44-6.

63. N.A., 16954, deed of lease, David Jebb of Slane to the lands of Crewbane.

64. Viscount Netterville to Susanna Smith 1734, R.D., 82-530-58890.

65. Evers to Warren 1734, R.D., 82-542-58940.

66. Lord Netterville to Osborne, R.D., 310-78-2055980.

67. Viscount Netterville to Susanna Smith 1734, R.D., 82-530-58890.

68. Lord Netterville to Patrick Kindelan 1736, R.D., 83-347-59215.

69. Nicholas, Lord Viscount Netterville to Kelly 1750, R.D., 142-297-95575.

70. Lord Netterville to Sarah Walsh 1750, R.D., 144-11-96241.

71. Lord Netterville to Thomas Lunn to Earl of Drogheda 1721, R.D., 62-278-42867.

mill, locally referred to as Johnson's mill, is located today.[72] This is probably the site of a mill mentioned in the Civil Survey in 1654 and shown on the Down Survey Barony map.[73] A 1732 deed records the 'water cornmill of Broe'.[74] The location of the cornmill is indicated on an estate map of 1766 and the mill race, described as such in the terrier of a map from 1781, lies south-west of the lane that runs from Broe House where it terminates before the river.[75] In 1752 the mill of Broe and a tuck mill at Newgrange were leased for one year.[76] Again in 1766 these mills were leased to Charles Campbell for one year.[77]

7Civ – Flax cultivation The Irish linen industry exhibited a strong regional concentration in the eighteenth century. The main areas of flax cultivation and the main linen producing areas were north of a line from Drogheda to Sligo.[78] The trade was flourishing because of the privilege of free access to the British market at a time when imports from continental Europe faced a tariff barrier.[79] A further boost to the economy in the Boyne valley occurred with the establishment of the Linen Board in 1711. This body took positive steps to develop the linen trade outside Ulster. Flax was the agricultural basis for this textile industry and it was a crop that required considerable processing before it left the agricultural sector.[80] Those living in the Bend of the Boyne in the mid-eighteenth-century were ideally placed between Drogheda, where there was an expansion in the linen industry, and Slane where, according to Young, a cottage industry had emerged for the manufacture of coarse cloth which was exported to Liverpool. To meet the needs of this proto-industry, Young tells us, 'every farmer' grew a 'little flax' between Slane and Drogheda.[81] There were premiums for growing flax in 1796 which were collected by many in the Bend of the Boyne and grants were awarded by the trustees of the Linen Board.

Young's observation that 'a little flax was grown' is an accurate indication of lower status of this industry in the Bend of the Boyne. A choropleth map of the distribution of spinning whells in counties Louth and Meath (1796) shows that the

---

72. N.L.I., A survey of part of the estate of Charles Caldwell Esq. in the counties of Meath and Louth by Bernard Scalé 1766.

73. Simington (ed.), *Civil Survey: Meath*, p. 26; Down Survey map of the barony of Duleek.

74. Earl of Drogheda to Stewart 1732, R.D., 89, pp 343-5-48655.

75. N.A., Caldwell Papers, Manuscript map, 10952/2/56.

76. N.A., Caldwell Papers (1095/2/36).

77. N.A., Caldwell papers (1095/2/2xi).

78. W. Smyth, 'Locational patterns and trends within the pre-famine linen industry' in *Ir. Geog.*, viii (1978), pp 97-110, see p. 100, fig. 1.

79. W. Smyth, 'Flax cultivation in Ireland: the development and demise of a regional staple' in W. Smyth and K. Whelan (ed.), *Common ground: essays on the historical geography of Ireland* (Cork, 1981), pp 234-52, see p. 238.

80. *Ibid.*, pp 234-52.

81. Young, *Tour of Ireland*, i, p. 38.

Boyne and Mattock formed the boundary of intensive linen manufacturing (fig. 7.9). Only in the extreme west of county Meath was there a level of spinning on the par with Louth.

A flax school was established at Newgrange. Three families from Dowth parish applied for 'one spinning wheel's worth of flax each i.e. one rood'. Twelve families from Monknewtown parish were awarded a total of seventeen wheels. In 1795 the Linen Board specified a premium of £300 to encourage the development of mills and by 1802 scutch mills were found in every parish in the Bend of the Boyne.[82] This was the period of handweaving workshops whose artisans would buy the linen yarn in the town market. This market was so active that a linen hall was erected in Drogheda in 1774. This was a large two storey, quadrangular building where the linen yarn was displayed on raised wooden benches.

7D Communications

7Di – Roads With an interest in the promotion of industry and trade displayed both in parliament and their own estates, Irish landowners were inevitably drawn towards improving the existing communications network. Initially roads were financed by tolls but in 1765 authority was granted to the grand juries to levy a county cess for road building.[83] In 1776 the assessments for making and repairing the roads in the Slane area amounted to 10d per acre for each tenant.[84] Irish roads were cheaply made with layers of earth, gravel and broken stones, flanked by drainage ditches.[85] Scalé's map shows that the contemporary road network was largely in place by this time. The Grand Jury Query Book of the 1760s records that in 1761 a total of £25 was to be raised on Slane barony and paid to Edward Ellis and Richard Smith for:

> gravellling 142 perches of the great road leading from Drogheda to Trim beginning at the lands of Balfaddock and ending at the lands of Newgrange. This was 14 feet wide at 3s a perch, the said road now being of the breadth of 25 feet between inclosure and inclosure.[86]

In 1764 a sum of £167 was paid to David Jebb, William Burton and Benjamin Burton for building a bridge over the Mattock river on the Drogheda to Slane road which required '669 perches of mason works at 5s a perch to build the Meath side of the bridge.[87] Road development continued into the nineteenth century. A Grand Jury

---

82. Ellison, *Boyne and Blackwater*, p.71.

83. J. Killen, 'Communications' in Aalen, Whelan and Stout (ed.) *Atlas*, pp 206-19, p. 207

84. Young, *Tour of Ireland*, i, p. 49.

85. Andrews, 'Land and people', p. 257.

86. N.A., Grand Jury Query Book, county Meath 1761-1776, Query no. 110.

87. N.A., Grand Jury Query Book, county Meath 1761-1776, Query no. 113.

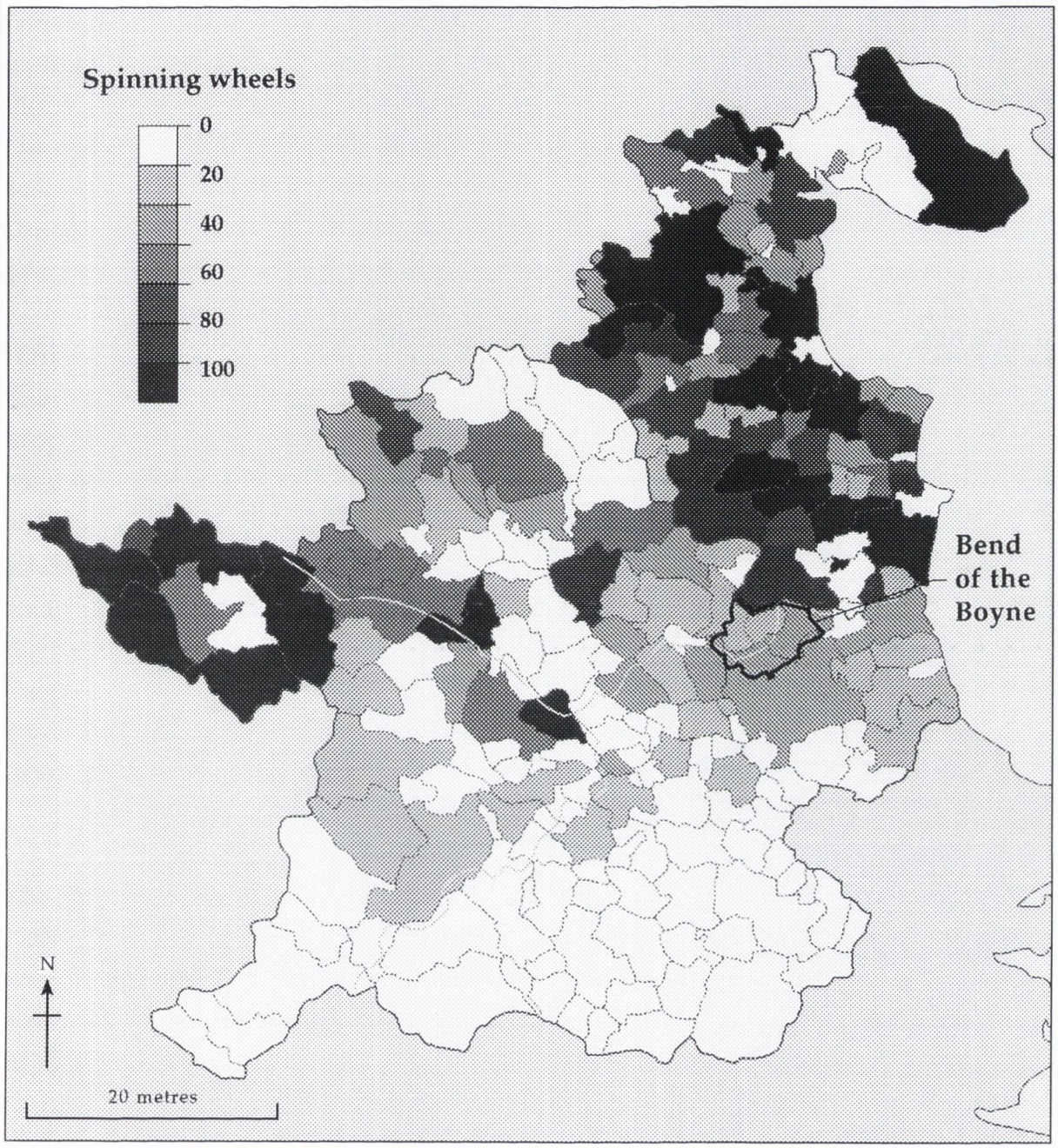


Fig. 7.9 Spinning wheels in counties Louth and Meath 1796 (Linen premiums)

Presentment Book for the period 1809-1814 refers to numerous road improvements such as the repair and underpinning of a bridge at Roughgrange in 1810, making a shore on the lands of Rosnaree in 1811 and the building of a wall at Staleen in 1813.[88] The effects of road building were also beneficial for roadside dwellers. Arthur Young describes the practice of grazing the 'long acre' in the area between Slane and Drogheda; 'the cattle in the road have their forelegs all tied together with straw (súgan), to keep them from breaking into the fields'.[89]

7Dii – The Boyne Navigation Ireland's waterways, unlike its roads, were in part financed by central government during the eighteenth century: schemes were proposed for the improvement in navigation on many of the country's rivers, including the Shannon, Nore and Barrow. Works such as dredging and the making of locks and lateral canals were carried out on a number of rivers. There were also schemes for the construction of stillwater canals linking river basins across their watershed such as the Newry Canal.[90] A passionate plea to construct a navigation on the Boyne was first mooted as early as 1710 by Markes Plunkett for the attention of the parliament and those who lived along the river. In the Bend of the Boyne these were Netterville at Dowth, Osborne at Knowth and Hamill at Newgrange. According to Markes Plunkett:

> Meath could become by means of this navigation traffic as rich and prosperous as the Indies with trade and employment booming.[91]

The Boyne, one of the earliest navigation schemes in Ireland, was canalised between 1748 and 1790 in order to encourage trade with the Dublin market and to transport corn to the port at Drogheda from inland markets.[92] The Lower Boyne Navigation was heavily subsidised because of the benefit it would bring to the Slane mills. In 1756 the Inland Navigation Corporation set up a body of local noblemen and gentry to oversee the ongoing work of making the Boyne navigable. In 1765 Dixie Coddington of Oldbridge was a Boyne Navigation Commissioner.[93] Under a new act passed in 1787, the Boyne Commissioners became a corporate body. Andrew Caldwell and Henry Coddington were Boyne Navigation Commissioners in 1779.

The original engineer for the Boyne navigation was Thomas Steers. Of Dutch origin, he had actually held a commission in the 4th regiment of foot (the King's Own) which took part in the Battle of the Boyne in 1690. Ironically, he died in 1750

---

88. N.A., Grand Jury Presentment Book 1809-1814, 1C/33/30, nos 8, 29, 122.

89. Young, *Tour of Ireland*, i, p. 37.

90. Brady, Shipman and Martin, National canals and waterways strategy (unpublished report, Office of Public Works, Dublin, 1992), p. 1.

91. N.L.I., Ms 500. A scheme of navigation of the noble river Boyne.

92. Ellison, *Boyne and Blackwater*, p. 12.

93. N.L.I., D 14917.

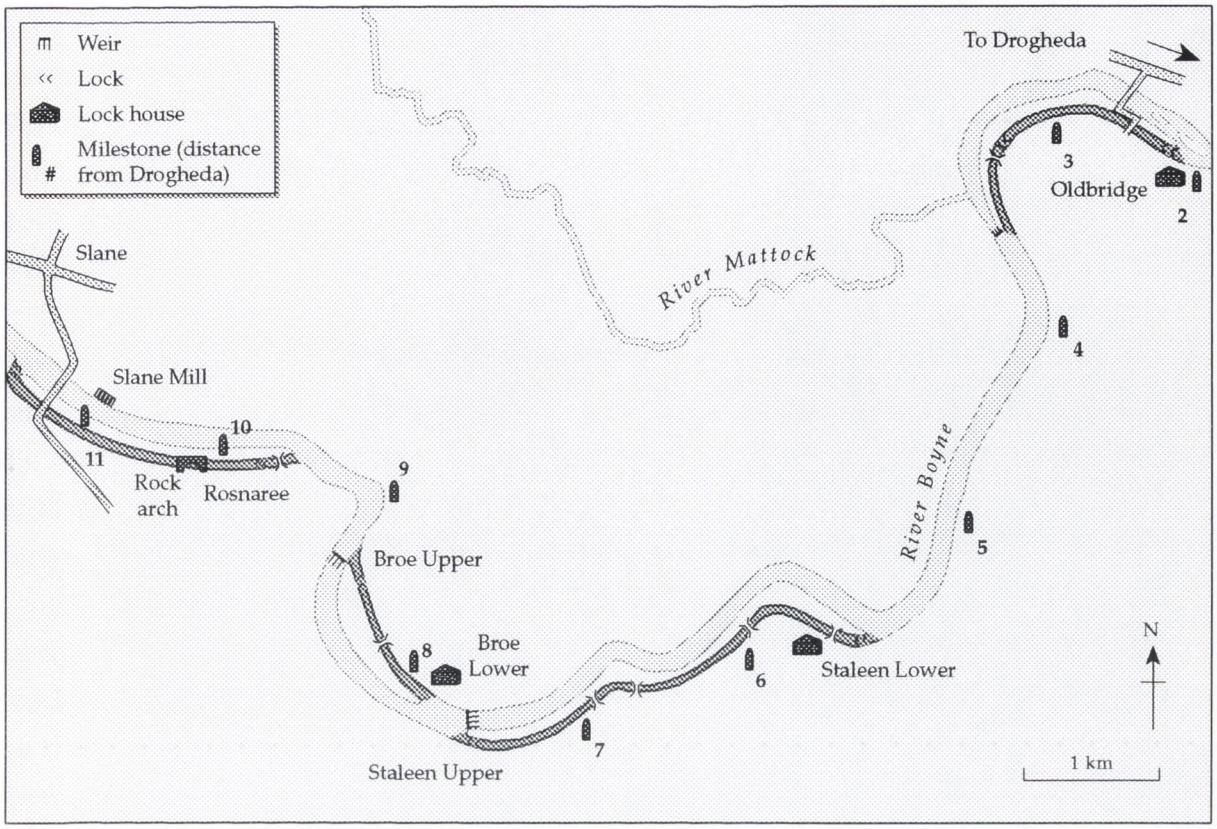


Fig. 7.10 The Lower Boyne navigation (after Elison, 1983).

just after the completion of Oldbridge Lock near the site of the battle. Eight locks were built between Drogheda and Slane; Oldbridge, Staleen, Roughgrange, Newcomen's, Broe, Knowth, Fennor and Slane (fig. 7.10). The locks built along the canal were to be made of the largest 'rude stones' available and the 'walls of lime and stone [made] in the best manner'.[94] The masons employed were mostly locals such as William Norris of Oldbridge, and Patrick Begg and John Elliott of Dowth.

The earliest mapping of the Lower Boyne canal is in Scalé's map of 1766, which shows two cuts on the north bank at Broe in Newgrange townland, one a millrace to serve the mill of Brow and the other for the canal. A navigation towpath is located on the banks of Robert Berrill's farm at Knowth and the position of the lock house at Broe is shown. A later map describes, on an accompanying terrier, the impact of the canal works on the former meadows at Newgrange since the commencement of the construction of the Boyne navigation.[95] Soil stripping to raise a rampart had turned an area into a 'shaking bog'. Eleven acres of land were allegedly 'lost' while others fields were 'rendered into a bed of flaggers... with not a bit of grass... ruined partly by the overflow and partly for want of back drains'. Presumably this document was forwarded to the navigation authorities as a plea for compensation or additional drainage works. This appeal seems to have been successful as a back drain was constructed and a rent of 12s paid for the land between Broe ford and the 'new lock'. In 1782 the local navigation commissioners found the 'the navigation from Drogheda to Slane bridge... to be perfectly useful'.[96]

7E The Penal landscape

The Williamite victories of the 1690s ushered in government legislation at the end of the seventeenth century aimed at keeping the Catholic community of Ireland in a state of permanent subjection. When George I came to the throne, the Anglican church of Ireland was 'established' by law. Thus it was entitled to be supported through tithes by the whole population. However, no organisational change took place and there was little physical infrastructure set in place for mass conversion to Protestantism apart from ineffective charter schools. No new churches were built and the general state of the church stock remained ruinous. By 1718 in the diocese of Meath churches were demolished in many parishes.[97] In the Bend of the Boyne there is no indication that the church stock – inherited from the medieval period and in the hands of the Church of Ireland – was ever in use in the eighteenth century.

---

94. *Ibid.*, p. 13.

95. N.A., manuscript map, Caldwell Papers (1095/2/56).

96. N.L.I., Ms 7352, Minutes and Proceedings of the Boyne Navigation Commissioners, pp 41, 47.

97. J. McCracken, 'The ecclesiastical structure, 1714-60' in Moody and Vaughan (ed.), *A new history of Ireland iv*, pp 84-104, see pp 87-98.

The Catholic church in the course of the eighteenth century gradually recovered lost ground, renewed its organisation and consolidated its position. This recovery had a physical dimension in the landscape. Mass houses were discreetly placed in out of the way places and mass rocks erected. Patterns at holy wells were revived. The use of traditional burial places continued in spite of the act of 1697 which declared that 'none shall bury in suppressed monastery, abbey or convent, not used for divine service, or within the precincts of monuments'.[98] The earliest and healthiest Catholic communities were in areas with Catholic or 'crypto-Catholic' landlords, precisely the conditions found in Meath, and more specifically, in the lower Boyne valley.[99] In the Bend of the Boyne, the Catholic Nettervilles fostered a sub-gentry of middlemen and leaseholders who became patrons of the Catholic church. In Meath, despite efforts to close Mass houses by proclamation in 1714, 1715, 1719, 1723, 1739 and 1744, there were 103 masshouses and 108 priests in 1731.[100]

A record of this period of Catholic suppression within the Bend of the Boyne is found in oral traditions and placenames, diocesan records, local history and monuments (fig. 7.11). In the eighteenth century, the diocesan archives record a mass house or thatched chapel on the site of the present Donore village church and a thatched school nearby.[101] A stone font on a pedestal outside the door of the present church, dating to 1727, corroborates this. The thatched chapel at Donore was visited in 1797 by the reforming Bishop of Meath, Dr Patrick Plunkett who found it to be in very bad condition. The parish priest at the time was Fr Walter Johnston who was born in Rossnaree.[102] There is a locally held tradition that Lord Netterville of Cruicerath participated at mass in this church while sitting in his 'castle' to the south of the village. The tradition records that a flag was raised at the gable end of the chapel to single the important parts of mass.[103] This tradition is also associated with another member of the Netterville family. A house was erected on top of the passage tomb at Dowth for the purpose of praying and Netterville 'usually knelt at the window of this house while the Holy Sacrifice was being offered, on Sunday mornings, in the old chapel of Dowth'.[104] These traditions suggest that the Netterville conversion to the Established church in 1728 (see 7Bii) was made for legal reasons only. Mass was often said in a corner of a field where there was a massrock.

---

98. *Ibid.*, p. 96.

99. K. Whelan, 'The regional impact of Irish catholicism: 1700-1850' in Smyth and Whelan (ed.), *Common ground*, pp 257-77, see pp 257-8.

100. P. Corish, *The catholic community in the seventeenth and eighteenth centuries* (Dublin, 1981), p. 49; McCracken, 'Ecclesiastical structure', p. 96.

101. Quoted in S. Matthews, 'Under the hill of Donore' in *Journal of the Old Drogheda Society*, ix (1994), pp 118-28, see pp 118-9, 125-6

102. *Ibid.*, p. 125.

103. *Ibid.*, p. 125.

104. O. Curran, *History of the Docese of Meath 1860-1993, i* (Dublin, 1862-70), p. 306.

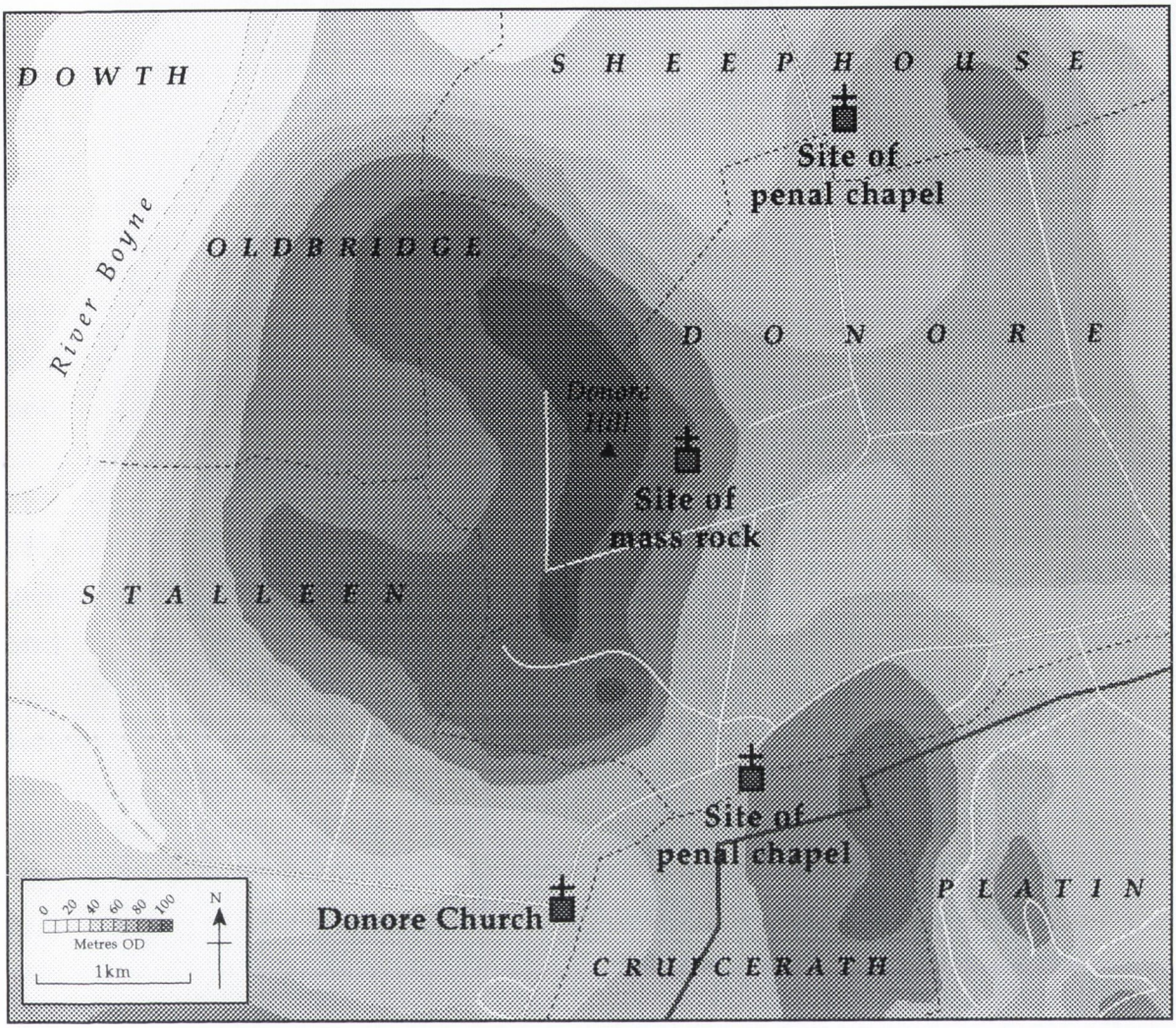


Fig. 7.11 Approximate location of penal sites in the vicinity of Donore.

Local tradition holds that on one occasion Fr James Plunkett (d.1731) was so closely pursued by priest hunters that the Doggets (farmers in the townland of Sheephouse) hid him in a straw rick. Fr Plunkett is buried in Donore graveyard.[105] There was another chapel in the penal days at the top of a steep hill between Sheephouse and Tubberfinn. Later on there was a chapel on the Donore road.[106] The assertion of Catholicism is confirmed by Mrs Delany who, while travelling through the Boyne valley in the summer of 1752, observed that on the 'Eve of St. John, a great Roman Catholic holiday... were forced to pass by several monstrous fires (actually made of bones) and firing guns and squibs'.[107]

7F Conclusions and conservation statement

7Fi – Estates The first section of this chapter dealt with the landscaped parklands around the fine mansions erected in the eighteenth century in the Bend of the Boyne and the creation of tenant farmers on the estates. Three representative estates were highlighted: the Netterville at Dowth; the Campbell/Caldwell at Newgrange and the Coddington at Oldbridge. The Netterville estate is the most important property in the Bend of the Boyne because Dowth Hall is still inhabited and its associated demesne is reasonably well preserved. In contrast, all vestiges of the Campbell/Caldwell estate have been removed with the exception of its ice house (east of Newgrange passage tomb) and some of the stone out-buildings associated with the courtyard of the former Newgrange House. Oldbridge House, on the other hand, is in a semi-derelict condition. It was remodelled in the nineteenth century and part of its parkland is threatened by an existing planning permission for the development of a golf course and leisure complex on the grounds. As regards legal protection, Dowth Hall and Oldbridge House are listed buildings in the current County Meath Development Plan. It is essential that in the subsequent County Development Plan the associated parklands should be included in this listing. The ability to conserve these buildings of architectural interest and their setting has been strengthened by the current form of protective legislation. The new planning bill will oblige local authorities to regard the recommendations of the Department of Arts, Heritage, Gaeltacht and the Islands concerning protected buildings. Works affecting protected buildings and structures will require planning permission.

The legal status of eighteenth-century demesnes in the Bend of the Boyne was highlighted in a recent planning case involving Oldbridge House and grounds. In 1992 a consortium of local and international business people applied to Meath County Council for the development of an hotel, golf and leisure complex on the

105. *Ibid.*, p. 338.

106. Quoted in S, Matthews, 'Place and People: a family exploration (unpublished family history, 1987), see p. 18-9 and accompanying map.

107. A. Day (ed.), *Mrs Delanys undoing*.

grounds of Oldbridge House. They also proposed to restore and re-build Oldbridge House for use as an hotel.[108] This planning application was accompanied by an EIS in which the proposers acknowledged that they had made 'every effort to combine the cultural ambience of the past with the requirements of the future'.[109] The consortium argued that the use of this fine eighteenth-century estate for a hotel and leisure complex was compatible with the objectives of the County Development Plan which sought to develop the Boyne valley based on its cultural and recreational assets. Meath County Council argued that the existing parkland had remained largely undisturbed and the development would have a detrimental effect on it. An accommodation was reached which involved re-designing the proposed golf course, and leaving a section of parkland in front of Oldbridge House undeveloped. Permission was granted in 1993 and was subject to 25 conditions; condition number 8 required the developers to submit detailed landscaping proposals for the entire site. An Táisce had earlier recommended to Meath County Council that a comprehensive landscape plan for the estate be prepared which was already a condition placed on Powerscourt Demesne, Wicklow in 1992 by Wicklow County Council, pursuant to Section 38 1963, Local Government:

> Before development commenced, the developer should enter into a legal agreement... to manage the woodlands and associated riverine habitats in the interest of conservation and landscape quality.[110]

In assessing the role of Meath County Council in this case, it is fair to say that they were reasonably sympathetic to Oldbridge and its grounds. Its use as a hotel offers a sustainable future for this large property. The forthcoming Architectural Heritage Bill will establish authorities to monitor works of this kind. The Council's consultation with the developers resulted in a radical re-design of the golf course which froze part of the parkland. Despite the approval of this development, Oldbridge House remains uninhabited and will continue to deteriorate until this planning permission is implemented.

The state of Oldbridge House reflects, in more general terms, the current position of large eighteenth-century houses in Ireland as a whole; many are abandoned or in ruins.[111] The ability to conserve these buildings of architectural interest has been constrained by the lack of financial assistance. Historically, the income derived from agriculture was all-important in funding the construction and maintenance of these houses. Now, however, such properties have less than 10% of their original holdings

---

108. Meath County Council, P 92/473.j

109. Environmental Impact Services Ltd, 'Environmental Impact study for Oldbridge House golf and leisure development' (unpublished report, Dublin, 1992).

110. Wicklow County Council, 91/0006931.

111. P. O'Connor-Nash, 'The great houses: how to breastfeed a dinosaur in the late 20th century' in J. Feehan (ed.) *Environment and development in Ireland* (Dublin, 1992), pp 114-7.

while maintenance costs continue to rise. Their future depends on making them less dependent on agriculture. The current government attitude to these large houses is that they are more effectively managed by private owners. The state has introduced a series of taxation reliefs and other measures to help the owner maintain these properties. They include the following: under Section 55 of the Capital Acquisitions Tax Act, 1976 and Section 39 of the Finance Act, 1978:

> Both houses and gardens and objects contained within them, which are not held for the purposes of trade and which are deemed by the Revenue Conmmissioners to be of national, scientific, historic or artistic interest and in respect of which reasonable facilities for viewing are given to the public, may be deemed exempt from Capital Acquisitions Tax.

Under section 19 of the Finance Act, 1982:

> Expenditure on an approved building which is deemed to be of significant scientific, historic or architectural interest and to which reasonable access is afforded may claim relief from income tax or corporation tax in respect of expenditure on repairs, maintenance or restoration.

A building which qualifies for relief, under Section 19 of the Finance Act, 1982, is also exempt from Residential Property Tax by virtue of Section 19 of the Finance Act, 1983. In addition to these various taxation exemptions and reliefs, certain projects undertaken by the owners of these houses may be eligible for grant assistance under Structural Grants, Agri-Tourism Grants or the International Fund for Ireland. This is limited to 50% of the cost of the project. From 1985 FÁS considered applications from 'Great Houses' towards projects relating to the maintenance, restoration or refurbishment of these properties or their gardens. Recently the Minister of the Environment and Local Government and the Minister of Arts, Heritage, Gaeltacht and the Islands has announced an initiative to help protect the architectural heritage, A new planning act will be enacted to protect buildings of architectural, artistic and historical importance. A budget of £5 million will be provided to support these legislative measures, 80% of which will be directed towards conservation of protected buildings by means of grant-aid.[112]

Very few of the numerous tenant dwellings described in the eighteenth-century deeds and maps have survived in the three estates examined in this study (7B). More often than not the dwellings have been replaced and in some cases only the outbuildings are extant. The accompanying table 7.1 lists the present dwellings that are thought to date from this period in the areas studied. Within the Bend of the Boyne, only the larger eighteenth-century houses have any legal protection.

112. Department of Environment.

Table 7.1
Surviving eighteenth-century buildings on the Netterville, Campbell/Caldwell and Oldbridge estates

Location	Site type	Historical note	Status
Campbell/Caldwell Estate			
Crewbane	House	Robert Berrill's farmhouse (1766)	
Gilltown	House	John Connolly's farmhouse (1766)	
Gilltown	House	Richard Smith's farmhouse (1766)	
Knowth	Outbuildings	Andrew Maguire's farm (1766	
Newgrange	Outbuildings	Robert Berrill's, farm (1786)	
Newgrange	Ice house	First shown on 1837 OS 10,560 map	In state ownership
Netterville estate			
Dowth	House	'Belle Isle', Patrick Duran's farmhouse (1732)	
Dowth	Mansion	Dowth Hall, Netterville's seat (1731)	Meath C.C. listing
Proudfootstown	Millhouse	Kelly's residence (1750)	
Oldbridge Estate			
Oldbridge	Mansion	Oldbridge House, Coddington's seat (1740-50)	Meath C.C. listing
Oldbridge	Courtyard/ Outbuildings (2)	Oldbridge House, from painting (*c.*1740)	

7Fii – Agricultural and industrial development: mills and lime kilns Eighteenth-century agricultural and industrial development is reflected in the landscape by the presence of mills, and to a lesser extent, lime kilns. This period of agricultural improvement required lime powder to improve soil quality. Lime kilns reduced limestone to a powder by burning; the powder was then spread on the fields as a fertiliser or used in building for mortar or limewash. Although there are no limekilns in the study area, Limekiln Hill in Cashel townland lies on the north-western boundary of the study area and would have served farmers in the Bend of the Boyne.

Table 7.2
Eighteenth-century mills in the Bend of the Boyne

Location	Description	Status
Dowth	Mill (site)	
Monknewtown	Mill	RMP 11:70
Newgrange (Broe)	Mill(site)	
Newgrange	Tuck mill (site)	No precise location
Proudfootstown	Mill (associated buildings)	
Proudfootstown	Lessiteveran mill (site)	
Rossnaree	Mill	RMP 26:0502
Staleen	Mill	RMP 20:2803

Within the Bend of the Boyne, there is evidence for eight eighteenth-century mills (table 7.2). Ruins of these mills are found at Monknewtown, Rossnaree and Staleen and there are buildings associated with a mill at Proudfootstown. Two mill sites are included in the Record of Monuments and Places which places an archaeological constraint on any development of these sites; a third, the impressive site at Monknewtown, is protected because it lies within the archaeological constraint area of another monument. Monknewtown is one of only a few industrial buildings that

are listed in the County Development Plan. The large size of these buildings makes it very difficult for the individual owners to maintain them. However, outside the Boyne valley many mills have been restored for personal use and hostel-type accommodation with the aid of Bord Fáilte grants. Such a financial incentive is needed to secure the future of the eighteenth-century mills in the Bend of the Boyne.

7Fiii – Communications The Boyne navigation is a key part of the built heritage of the Bend of the Boyne. It was a massive engineering works, the construction of which led to important economic and social developments in the valley in the eighteenth and nineteenth centuries. It also contains structures which are reasonably well preserved. These include bridges, locks, aquaducts and lock houses. The towpath at present offers an opportunity for walking from Drogheda to Navan and is a long distance walking route marketed as the 'The Boyne Towpath'.[113] Much of the Boyne Navigation is currently owned by An Taisce, the National Trust who are responsible for its maintenance and upkeep. They have restored a short section of the canal at Oldbridge. However, the current official status of the Boyne navigation is 'derelict and abandoned'. Its future looks more hopeful. Dúchas (the principal authority concerned with inland waterway navigation in Ireland) have given the Boyne Navigation a high priority for restoration in the National Canals and Waterways Strategy (1992). Their current strategy in respect of the inland waterways system of the country is first and foremost, protection against unsympathetic development. Subject to technical, economic and environmental feasibility their short to medium phase of actions involve the restoration of the Boyne Navigation and its development in an integrated way with other tourism products of the valley.[114] The restoration of the navigation will enhance the existing heritage value of the Boyne valley and provide an alternative means of accessing the features. A number of reports have considered the feasibility of restoring the Boyne navigation and an allocation of £2 million has been set aside for works related to it.[115]

Table 7.3
Penal monuments in the Bend of the Boyne

Location	Site type
Donore	Mass house (site)
Donore	Font (1727)
Donore road	Chapel (site)
Sheephouse	Tubberfinn massrock
Sheephouse	Tubberfinn chapel (site)

113. Bord Failte-Cóspoir, *Walking in Ireland* (Dublin, no date?).

114. Brady, Shipman and Martin, National canals and waterways strategy (unpublished report, Office of Public Works, Dublin, 1992), pp 53-8, 73.

115. Brady, Shipman and Martin, Boyne valley integrated development plan (unpublished report, Office of Public Works, Dublin, 1996), see pp 6-7, A*8, Appendix 5.

7Fiv – Penal landscape The period of Catholic suppression is reflected in local folklore and some surviving monuments. In the Bend of the Boyne these have been mapped by a local historian but none have legal protection (table 7.3). The cut off date of *c.*1700 for the Archaeological Survey of Ireland has not been helpful to conservation in Ireland.[116] This marker date which separates 'archaeological' and 'historical' material has resulted in the general exclusion of penal monuments in the Record of Monument and Places and Archaeological Inventories. This has in turn affected their inclusion in the planning process. A significant exception to this has been the Inventories for County Cork which have incorporated sites post-dating AD 1700; the selection of these sites was based on surviving structures which were marked on the first edition Ordnance Survey 6-inch map (1842). This post-medieval material includes mass-rocks and barn churches.[117] Such a model lies beyond the resources of the archaeological survey but ideally it should be applied to a future systematic study of architecture in Ireland. There is now welcome discretion within the recent amendment to the National Monuments Act to incorporate post 1700 monuments.

116. K. Whelan, 'Review' in *History Ireland*, iii (1995), pp 61.

117. D. Power (comp.), *Archaeological inventory of county Cork, i, West Cork* (Dublin, 1992), p. 11.

CHAPTER 8
BUILDINGS IN THE NINETEENTH-CENTURY LANDSCAPE

8A Introduction

Because the Boyne Valley Archaeological Park is a rural area, the farming community has determined the built environment and the general appearance of the landscape. Given the dispersed nature of the rural population, buildings are a pervasive element of the Boyne landscape. Nineteenth-century land ownership patterns and farming practices greatly influenced the character of buildings along the Boyne. The eighteenth-century legacy was the elaboration of large demesnes along the Boyne held by a handful of landlords, each with their individual mansions; the basic territorial entity was the estate maintained by rents with a system of middlemen and sub-lessees.[1] Nineteenth-century rural society in the Boyne valley had a tiered social structure comprising three main groups defined by their relationship to the ownership and occupation of land: landlords who owned the land; tenants who occupied it, and labourers who worked on the larger farms.[2] This hierarchical society was clearly reflected in the diversity of house types in the period and the range of holdings associated with them.

This chapter initially examines the economic pursuits which largely determined the type of housing and holdings associated with each social class (8Bi). The detailed information contained in the rateable valuation of properties in 1854 (known as *Griffiths' Valuation*) provides the broadest statistical and geographical information which forms the basis of a housing classification (8Bii).[3] This is supplemented by archival material relating to the valuation process and by census data. Extensive fieldwork has enabled the identification of those houses listed in the valuation record and the association of house typology with social class (8Biii). The variation of housing quality has resulted in differential rates of preservation in the current countryside. In addition to domestic housing, this chapter also examines a wide range of buildings listed in *Griffiths' Valuation* illustrative of nineteenth-century society (8C). Throughout the century, the conditions of land tenure influenced the type and location of houses and the likelihood of their survival in the landscape (8D). This chapter also considers the effects of the Famine on both population and housing stock (8E). On the basis of this analysis of documentary and field evidence, an

1. T. Jones Hughes, 'Landholding and settlement in counties Meath and Cavan in the nineteenth century' in P. O'Flanagan, P. Ferguson and K. Whelan (ed.), *Rural Ireland: modernisation and change 1600-1900* (Cork, 1987), pp 104-46, see p. 105.

2. W. Vaughan, *Landlords and tenants in mid-Victorian Ireland* (Oxford, 1994), p. 6.

3. R. Griffith, *General valuation of rateable property in Ireland: county Meath* (Dublin, 1854); *General valuation of rateable property in Ireland: county Louth* (Dublin, 1854); *Census of Ireland 1851*: County of Meath, pp 92-3, 98-9; *Census of Ireland 1881*: County of Meath, pp 668-9, 708-9; *Census of Ireland 1911*: County of Meath, pp 1-9, 34.

informed conservation strategy can be developed which seeks to guarantee the survival of a representative sample of nineteenth-century housing (8F).

8B Nineteenth-century housing, land holding and society

8Bi – Economic Background Thompson's *Statistical survey of county Meath* (1802) provides a valuable insight into the life of the farming community in the Boyne valley at the turn of the century, especially farming practices and land ownership.[4] The Boyne farmers were in a favourable position, with easy access to the best grain market in the country at Drogheda, and the immense growth in trade brought about by the Boyne navigation. Rapid improvement in roads also encouraged trade with the nearby markets in Dublin. Thompson observed that the Slane area was under both tillage and grazing,[5] and that the area around Drogheda was particularly good for red wheat, producing large quantities of rye for boiling and seed, with a good deal of oats and barley.[6] Lewis (1837) describes the land in the parish of Monknewtown as divided equally between tillage and pasture; in the parish of Duleek, two-thirds of the land was under tillage.[7] Beans and white peas were grown in quantity. Lewis also noted that the Boyne navigation generally encouraged corn growing in the area.

These observations are substantiated by more localised data in the Field Books (1837-1839). While mixed farming predominated, the land was used exclusively used for tillage in some townlands, such as Monknewtown. In contrast, all of Knowth was in meadow. At Newgrange there was both pasture and arable (fig. 8.1).[8] These mixed farming practices of the nineteenth-century are reflected in the survival to the present day of ploughmens' and herds' houses The number of herds houses listed in Griffiths' Valuation for the area indicates a greater dependence on stock rearing (fig. 8.1). This is consistent with Jones Hughes's study of the entire county; in the 1850s, over one-quarter of the holdings were in the care of herds, suggesting extensive pastoralism in Meath.[9] This in turn reflects the heavy clay soils of the

4. R. Thompson, *Statistical survey of county Meath* (Dublin, 1802). These surveys were undertaken by the Royal Dublin Society in order to make recommendations on the improvement of agriculture.

5. *Ibid.*, p. 3.

6. *Ibid.*, p. 45.

7. S. Lewis, *Topographical dictionary of Ireland* (London, 1837), see for Duleek i, p. 566; for Monknewtown, ii, p. 389.

8. N.A., Field Books, Donore parish N.A.4.1334, Dowth Parish N.A.4.1461, Duleek Parish N.A.4.1335, Knockcommon Parish N.A.4.1340, Monknewtown Parish N.A.4.1464. The field books are held in the National Archives, Dublin. They are original returns made by Valuers in the field in preparation for the *Primary Valuation of Property*. Compiled for the study area between 1838 and 1839, their emphasis is on soil quality and type of farming practised. The information is presented in tabulated form, organised on a parish and townland basis. It lists the number of areas where soil was sampled in the townland, the farming practice observed (arable, pasture, meadow), occupants and their buildings. Each entry concludes with a recommended valuation.

9. Jones Hughes, 'Meath and Cavan', p. 124.

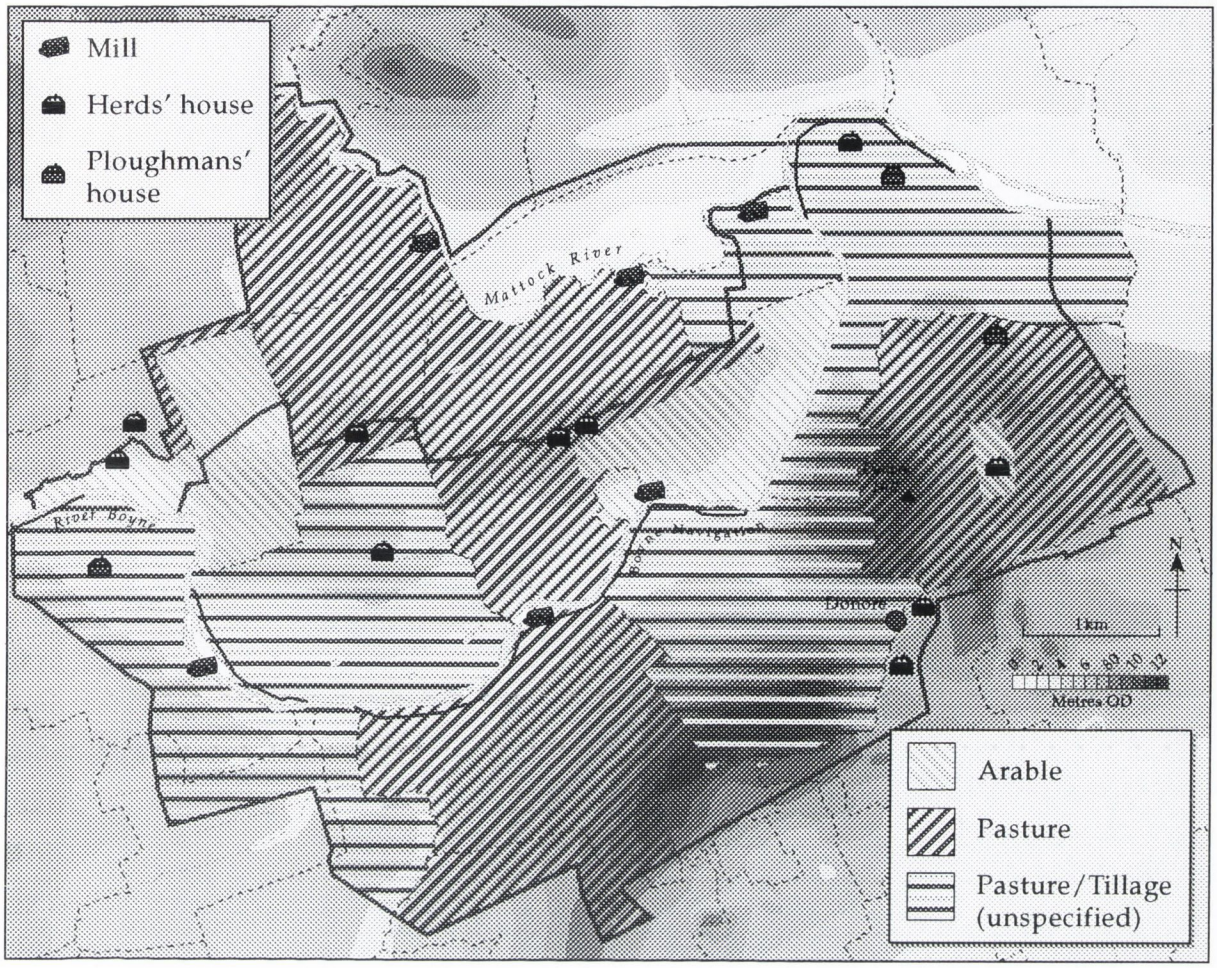


Fig. 8.1 Land-use, mills, and ploughmen's and herds' houses in the Bend of the Boyne in the mid-ninteenth century (based on OS field books [1838-39] and Giffiths' Valuation [1854]).

county, which were more suited to grass than tillage under pre-mechanised agricultural production methods.

Despite the dominance of cattle, the mid nineteenth century saw the high tide of arable farming in county Meath.[10] This was a labour intensive activity and a large proportion of the labourers in Drogheda was employed as field labourers.[11] The Boyne Navigation (built at the end of eighteenth century) had greatly facilitated corn-growing and milling in the lower Boyne valley. Grain and flour accounted for a high proportion of the total tonnage carried eastwards.[12] Timber, slates, stone and coal came up the canal to the village of Donore.[13] There were small vernacular mills in close proximity to one another on the Boyne at Dowth, Rossnaree, Staleen, and Roughgrange, with more modern ones using steam power at Monknewtown and Proudfootstown. All these mills processed locally grown corn .

Grazing, corn growing and milling were not the only economic pursuits. There were also fisheries on the Boyne at Staleen, Roughgrange and Rossnaree. Coarse linen was woven in the village of Tullyallen for the Drogheda market.[14] D'Alton refers to the steeping of flax in the Boyne.[15] The mill at Dowth was a tuck mill in 1820.[16] The processing of wool testifies to the presence of sheep in the area, continuing a tradition established by the Cistercians in Mellifont in the middle ages. There was a quarry at Sheephouse; according to Lewis (1837) it was well worked and contained an abundance of limestone of a handsome light colour used in the construction of a number of churches in the Drogheda area.[17]

8Bii – Classification In his 1802 breakdown of the main rural classes in the county, Thompson identified a close link between house type and holding size, ranging from the 'elegant mansion' of the 'nobleman's seat', to 'common farmers', and to the cottier with a mud-walled house on 'a half acre and potato ground' (table 8.1).[18] Thompson observed that the typical 'nobleman's seat' in Meath was 'an elegant mansion house belonging to the resident gentlemen of a large property' and that the 'offices [are] compact and convenient'. Below this in social status were the common farmers which he further sub-divides into three categories; first were those occupying 100-200 acres

10. T. Jones Hughes, 'East Leinster in the mid-nineteenth century' in *Ir. Geog.*, iii (1958), pp 227-41, see p 231.
11. J. D'Alton, *History of Drogheda* (Dublin, 1844), p. 4.
12. Jones-Hughes, 'East Leinster', p 231.
13. Lewis, *Topographical dictionary*, i, p. 481.
14. *Ibid.*, ii, p. 657.
15. D'Alton, *History of Drogheda*, p. 384.
16. C. Ellison, *The waters of the Boyne and Blackwater* (Dublin, 1983), p. 53.
17. Lewis, *Topographical dictionary*, i, p. 481.
18. Thompson, *Statistical survey*, pp 62-77.

who were, in his view, 'worst lodged than any part of the community'. According to Thompson, he 'builds the same kind of low mud wall as his tenant and to this he adds a stable and cow house'. The farmer occupying 50-100 acres were 'hardly any better off than the common labourer' and those occupying 2-10 acres were a 'real disaster'. The third class identified by Thompson was the labourer. This class he also sub-divides into three categories; cottiers who were given 'a house (built with mud) and a half acre and potato ground... few have chimneys'; 'bound labourers without a house', (presumably those in service and accommodated in the farmers' out-houses); finally out-labourers who were given no house and worked whenever they could. They were casual labourers, like those D'Alton described as coming out from Drogheda to work on the adjacent tillage farms.

Table 8.1
Thompson's classification of Meath rural society 1802

Social Class	Dwelling type	Farming Type
Nobleman's seat	Elegant mansion houses belonging to resident gentlemen of large property.	Mixed
Common farmer		
Occupants of 100-200 acres	Mud wall cottage with stable and cow house, foddering yard in front. 'Worst lodged than any part of the community'	Grazier
Occupants of 50-100 acres	Mud wall cottage. 'Hardly any better off than the common labourer'	Tillage
Occupants of 2-10 acres	Mud wall cottage. 'At rack-rent ...a real disaster'	Potato ground
Labourers		
Cottiers	Cottage	Potato ground
Bound labourers	No house	
Out labourers	No house. 'Works when he can get it'.	Conacre

To determine whether Thompson's classification of rural society at the beginning of the century is an accurate reflection of mid-nineteenth century society in the Bend of the Boyne, it is necessary to examine the rateable valuations for 1854 followed by field inspection of surviving houses. The 'Tithe Applotment Books' were examined as a potential source of information on housing and land holdings in the study area. These are generally considered an important pre-*Valuation* source. However, they were only available for a small portion of the study area and were not accompanied by maps, making precise location of properties difficult.[19] It was therefore decided to concentrate on the *Primary valuation of 1854* known as *Griffiths' Valuation*. This source, a published primary valuation of tenancies, presents rateable valuation figures for the houses, buildings and land holding of 290 households in the Boyne Valley Protected Area, the vast majority being leaseholders to the large estates in the area. Because there is also a strong correlation (r = .841) between house type and holding

19. The 'Tithe Applotment Books' (TAB) are held in the National Archives. See TAB 2748, Dowth parish 1833; TAB 22/64 (2), part of Duleek parish 1830; TAB 22/64, Lougher townland 1853; TAB 22/63, Knockcommon parish 1830.

size, it is possible to devise a classification which encompasses both farmhouse and farm.

In order to obtain further information on houses that have since been demolished and to confirm that those which survive are the original houses referred to in the Valuation of 1854, it was also necessary to examine the valuation manuscripts, in particular the 'House Books'.[20] 'The House Books' were compiled for the Boyne valley from September to November 1838. They contain details on dwellings and out-buildings which are classified according to function. Dimensions of both dwellings and out offices are given in tabulated form, accompanied by their quality number and sub-letter, followed by their rateable valuation. The quality letter categorises houses by the number of rooms they contain: houses with more than nine are in class one; those with five to nine rooms are second class; those with two to four rooms are third class; those having a single room are fourth class.[21] These descriptions are often accompanied by remarks which explain the basis of the valuation given; the condition of the building, proximity to the road, deductions for repairs, etc.

Only seventy-six houses are listed in these 'House Books', comprising just 26% of the dwellings listed in the 1854 Valuation. No fourth-class houses are described. Most entries relate to houses and industrial buildings valued at more than £5 but some houses as low as £3 valuation were inspected. In the study area, thirty-five first-class houses, twenty-six second-class houses and fifteen-third class houses are listed. Within the first-class housing, the various ancillary buildings are also given their rateable valuation. Nevertheless, the published figures and the 1851 Census indicate that fourth-class houses were present in considerable numbers in the area.

The values listed in the manuscripts contrast markedly with the figures published for the same property in the 1854 Valuation, showing both increases and decreases in rateable valuation for particular properties. The numeration of holdings also differs from the final valuation, making comparison of holdings between both sources problematic. This is further complicated by the apparent change in occupier on many of the properties in the years between 1838 and 1854. These discrepancies make it difficult to obtain more detailed information on levelled buildings.

Rateable valuations for the 290 houses ranged from sixty-five pounds to five shillings (appendix 1, table 8.3). When these figures are presented as a horizontal bar chart, a pyramidal structure appears with a broad base and a narrow top which mirrors the highly-stratified nature of nineteenth-century society (fig. 8.2). Four distinct valuation groups emerge. Field work and an examination of House Books makes it possible to link this statistical classification with building types. Nobleman

20. The 'House Books' are held in the Valuation Office, Irish Life Centre, Dublin 1. They are the original returns made by valuers in the field in preparation for the publication of the *Primary Valuation*.

21. W. Nolan, *Tracing the past: sources for local studies in the Republic of Ireland* (Dublin, 1982), p.87.

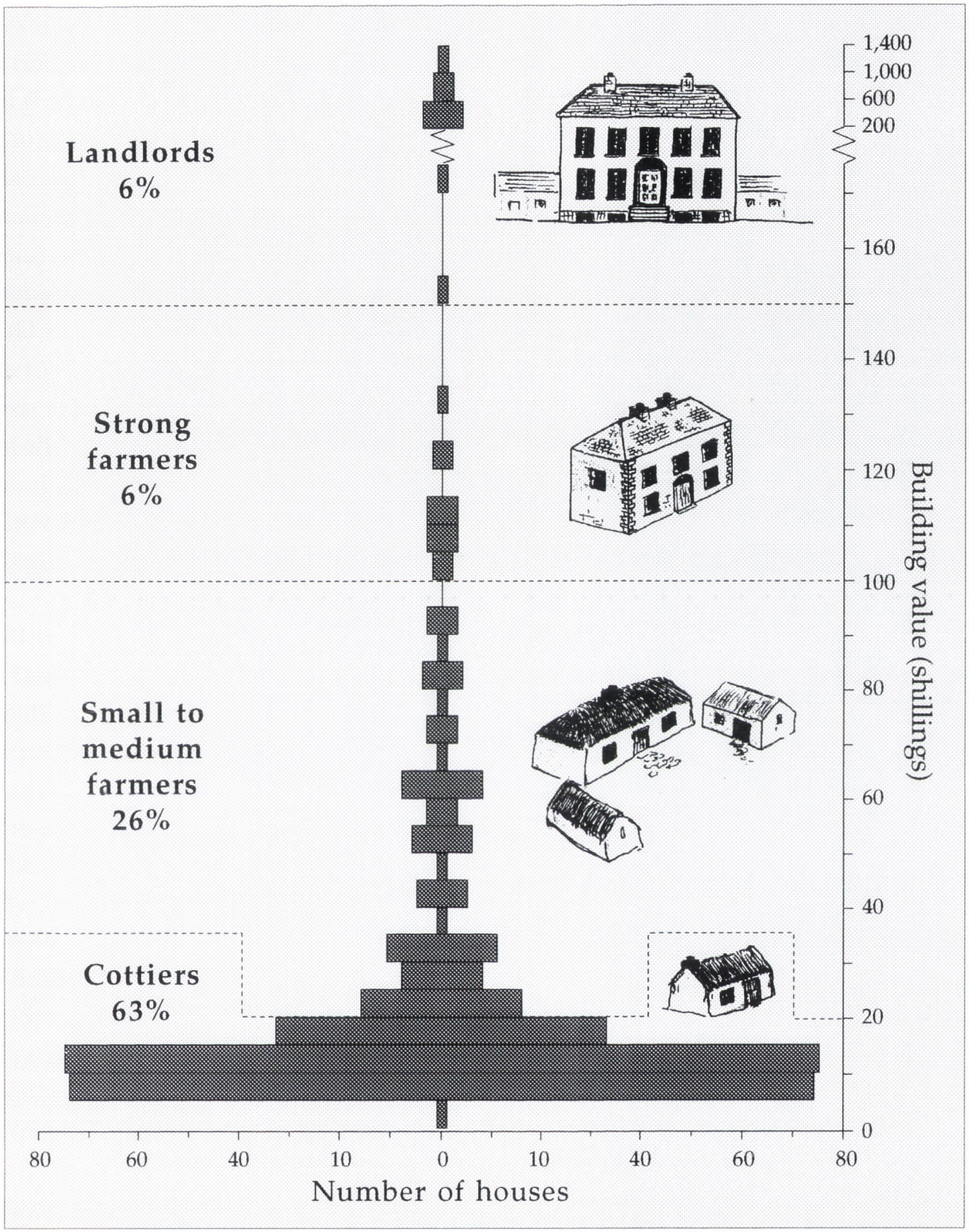


Fig. 8.2 Bar chart showing house valuations in the Bend of the Boyne. Four distinct categories of houses are illustrated (*Griffiths' Valuation*, house illustations by F. Aalen).

seats and the large houses of entrepreneurs – houses valued at 150 shillings and over – comprised 6% of the buildings in 1854. Land holdings associated with the mansions of the major landlords range from 70 to 700 acres. The lower figure of seventy acres could not have supported a house of this high valuation and presumably the house had other holdings in neighbouring townlands outside the study area. Four of these houses are occupied by a small group of entrepreneurs and do not have significant land holdings. The houses of strong farmers comprise 6% of the building stock. These houses had a rateable valuation between 75 and 150 shillings, and are associated with 100 to 250 acre holdings. Small to medium farmers are housed in buildings valued between 15 and 75 shillings, comprising 26% of the housing stock. Holdings associated with these buildings are usually under one hundred acres. At the bottom of the scale, the wide base of the social pyramid, are the homes of the cottiers and landless labourers. Almost two-thirds of these houses had a rateable valuation of fifteen shillings and under (63%). Most of these houses had no land associated with them.

8Biii Building typology

Mansions Fourteen properties in the Bend of the Boyne had a valuation over 150 shillings. Ten of these were houses of landlords or the homes of sizeable middleman tenants. Four of these highly valued houses belonged to local entrepreneurs. (appendix 1, table 8.3, figs 8.3, 8.4, 8.5). They are an easily recognisable class of housing; the country mansions with their demesnes which are largely a legacy from the eighteenth century. They are the properties of the resident landlords who held the land in fee. Within the study area, there are portions of ten estates; only six of these have their demesne in the study area (fig. 8.4). The largest demesne houses are Oldbridge House (1Aa) (on the Coddington estate of 3,737 acres) and Dowth Hall (35a) (on the Netterville estate of 3,332 acres (fig. 8.5).[22] Oldbridge House had the highest rateable valuation (£65) in the Boyne Valley Archaeological Park; it was followed by Dowth Hall (£35), residence of Richard Gradwell, owner of the former Netterville estate.

These mansions were located with great care and usually placed in a prominent position above the Boyne. The main feature of Oldbridge House is the entrance front made from Ardbraccan stone (from a quarry near Navan). The entrance doorcase is in the style of those executed by the famous architect Richard Castle (1690-1751) who worked in Ireland from 1727. Oldbridge House was redesigned in *c.*1832. Originally it was a three-bay, three-storey block, with low, single-storey wings. The architect involved may have been George Darley.[23] In the early nineteenth century additions

22. T. Wilson 'The great landowners of Meath, 1789' in *Riocht na Midhe*, vii (1980-86), pp 99-110, see p. 109.

23. C. Casey and A. Rowan, *The buildings of Ireland: north Leinster* (London, 1993), pp 446-8.



Fig. 8.3 Housing in the Boyne Valley Archaeological Park in the mid-nineteenth century showing the four distinct classes of buildings identified (based on *Griffiths' Valuation* 1954). Mansions are centrally located within virtually empty demesne townlands. Tillage areas (see fig. 8.1) are particularly devoid of settlement. An unusual cluster of small farmers' houses was built on the Coddington estate in Oldbridge. Most cottages are spread evenly along laneways but large clusters occur in a few places, such as Monknewtown and Donore.

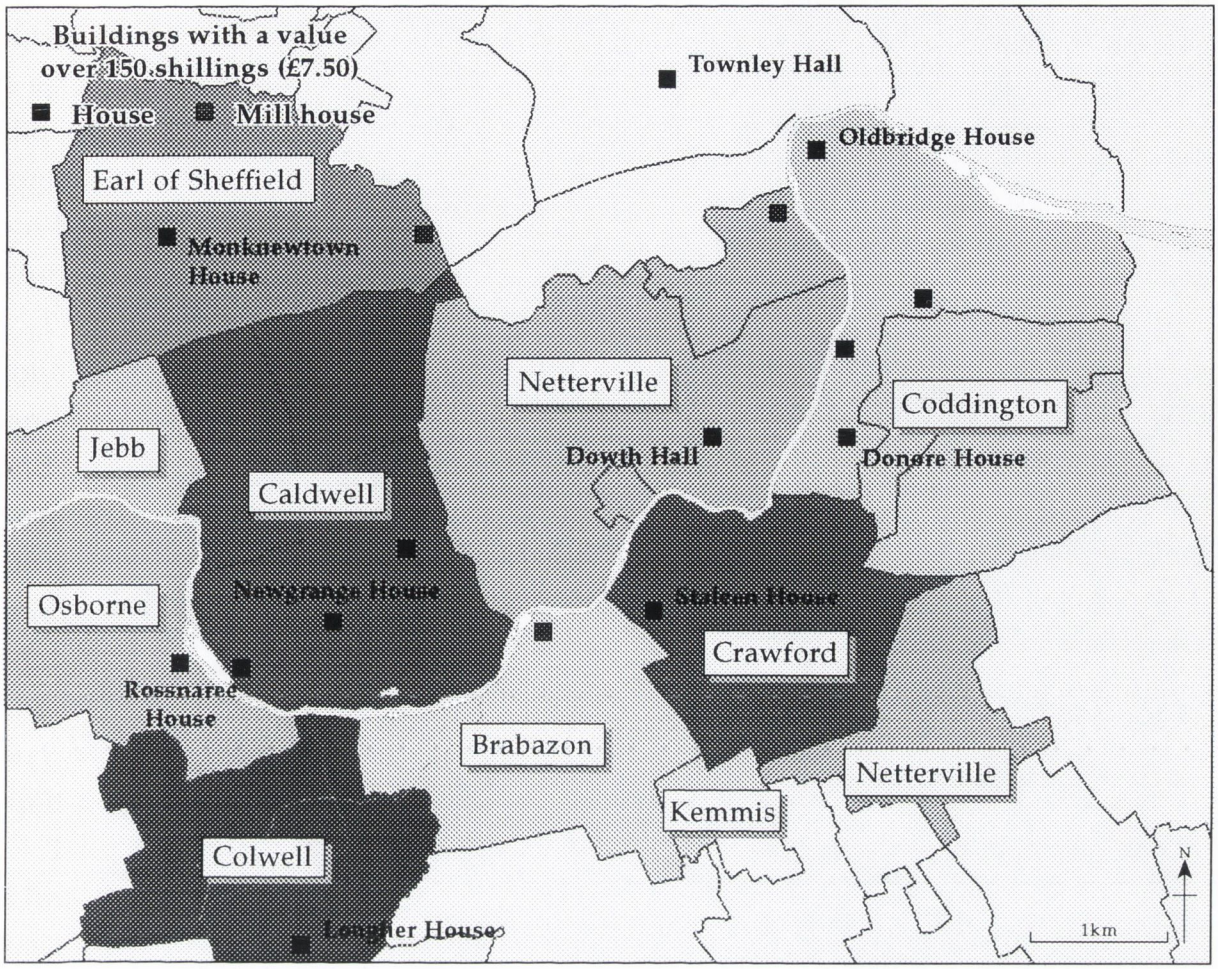


Fig. 8.4 The main landowners in the Bend of the Boyne in the mid-nineteenth century, the principle estate cores (named) and houses over 150 shillings in value.

of two floors were attached to each wing, apparently by Frederick Darley. The house is approached by a sweeping driveway, flanked by attractive cut-stone gate pillars and a nineteenth-century gate lodge. Oldbridge House is flanked by two courtyards containing former stables, servant quarters and greenhouses. A separate courtyard of out-houses lies to the north of this avenue and isolated from the main house. On the south side of the demesne is an eight acre, walled garden and estate wall.

Oldbridge also has a planned range of estate buildings which forms a self-contained territory in itself. Housing on this large estate was provided by the landlord using durable stone walls and slate roofs. The farm layout with its buildings and the descriptions of these houses in Griffiths' Valuation indicates the type of farming practised on the estate. Two villages were built for workers at Sheephouse (1a) and Oldbridge. The terrace of labourer's cottages at Sheephouse is a nineteenth century-improvement. Cul-de-sacs off the roads on the boundaries of the estate contain these houses of the more specialised estate workmen such as the ploughman and woodranger. The farmyards on the Oldbridge estate achieved high standards in layout and each type of building was carefully designed around a courtyard and all built with the same materials.

The present Broe House in Newgrange townland (1Aa), valued at 200 shillings, is a fine example of the residence of a long established large tenant/middleman with a leasehold of 193 acres that dates back to the eighteenth century (fig. 8.5). The house probably dates from that period as well. Broe House is a classical style, two storey, three bay house. The present central offset porch is not mentioned in the House Books indicating that it is a later addition. Associated with this house is a courtyard of nine out-buildings of the finest quality.[24] Another example of this class is found at Monknewtown (13Ba) where James Drew held 181 acres and lived in a fine two-storey house valued at 300 shillings. A complex of out-buildings is attached to the house (fig. 8.5).[25]

Thompson's classification of housing excluded the well housed entrepreneur class. Four of the fourteen properties with the highest valuation in the study area are houses associated with industry; three associated with mills and one with a quarry at Sheephouse. These are impressive, well-designed houses but, unlike houses on demesnes, have only small holdings.

Because of their solid and impressive nature, the mansions have a very high survival rate and are still a prominent feature of the countryside (fig. 8.6); only two of the fourteen mansions (14%) have been destroyed since the 1850s. Newgrange House (5a), valued at 400 shillings, is listed in 1854 as Richard Maguire's property at Newgrange and in the House Books as a large two storey property with a basement

24. Valuations Office, House Books, Monknewtown parish, p. 20.

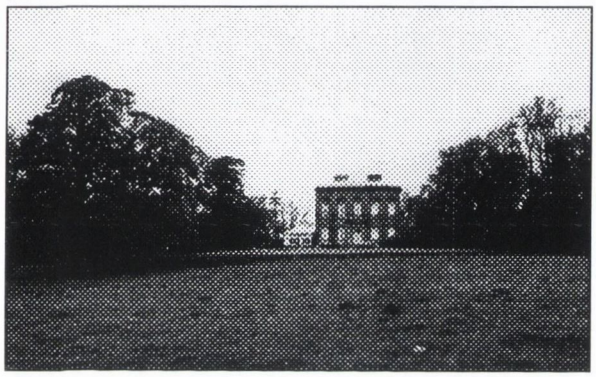
25. *Ibid.*, p. 15.



Oldbridge House (1Aa)



Oldbridge House, outbuildings



Dowth Hall (35a)



Sheephouse (1a)



Sheephouse terrace



Glenmore House (1Ab).

Fig. 85 Mansions and related buildings mentioned in the text.

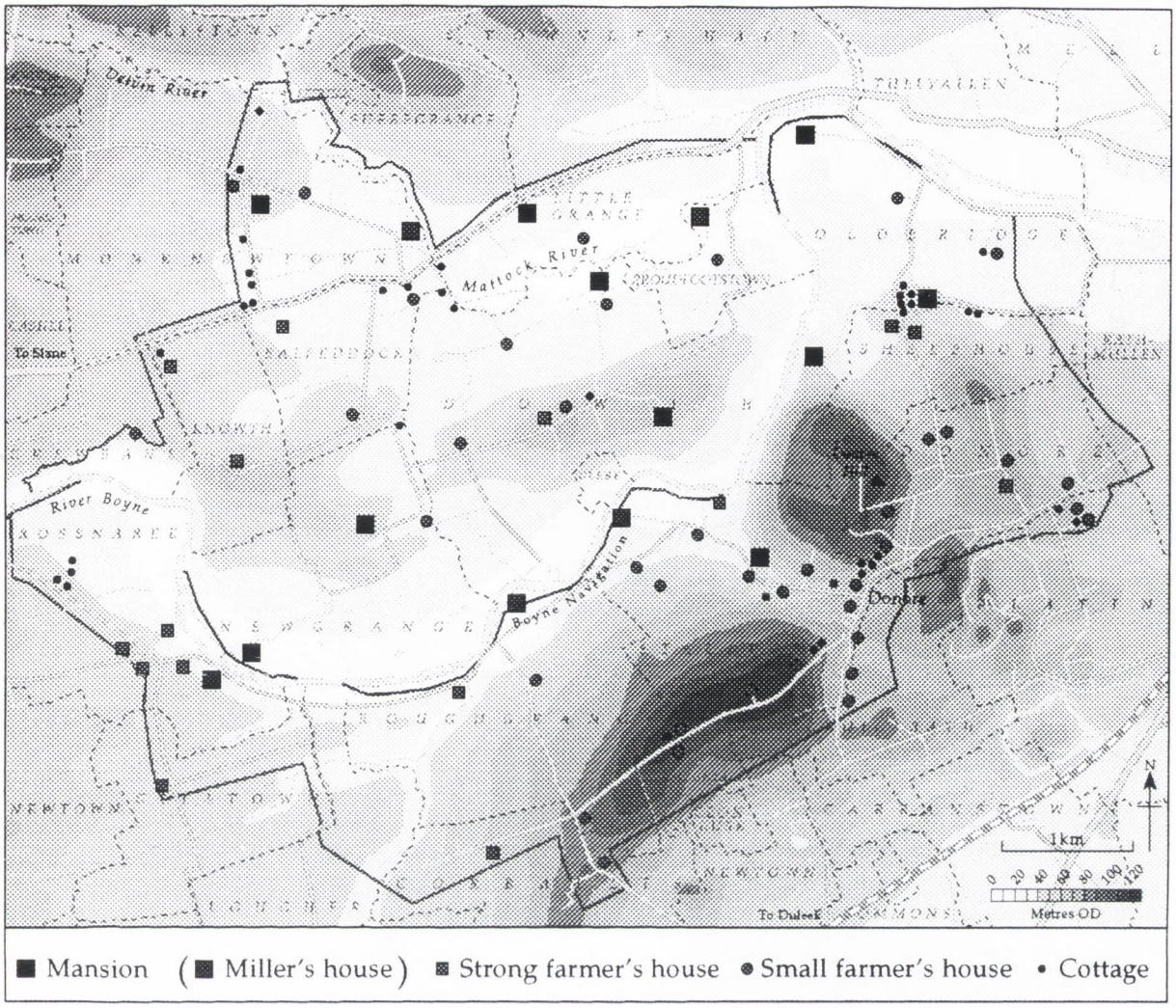


Fig. 8.6 Nineteenth-century housing stock in the Boyne Valley Archaeological Park. Cottages, once the most common house type, are now rare.

and porch. All that remains of this house are the impressive stone buildings that form part of the present farmyard open to the public at Newgrange Animal Farm.[26] Donore House (2a) was valued at 300 shillings; although it is now destroyed, its finely laid out courtyard is still in use. In addition, a number of these large houses are in extremely delapidated condition. Oldbridge House has been vacant since the late 1970s and Glenmore House (1Ab), valued at 700 shillings and also on the Oldbridge estate, also lies in ruins.

Strong farmers' houses The homes of the predominantly Catholic strong farmers in the Bend of the Boyne have values ranging between 75 and 150 shillings. There are sixteen of these houses, comprising 6% of the housing stock (appendix 1, table 8.3, figs 8.3, 8.7). Strong farmers are the larger tenants in the Bend of the Boyne and in some cases acted as middlemen. They tended to have 100 to 200 acre holdings and resided in solid, modest-sized, architecturally designed houses of a classical, 'pattern-book' style.[27] These are detached properties on private, planted grounds. They are not present in every townland in the Bend of the Boyne but they are the houses often referred to as 'townland houses'.

Anne Maguire's farm at Knowth epitomises the strong farmer's house. Known as Knowth House (2a), this two-storey farmhouse was valued at 120 shillings with a well-planned yard and some planting to the rear.[28] The yard is shown on an eighteenth-century map and is, therefore, earlier than the house. A large 191 acre farm was associated with this house.

There are some variations in the house style associated with these large farms. The second-class farm at Roughgrange (3Ba) on the south side of the Boyne differs from Knowth in that its design owes more to the vernacular tradition. The House Books refer to potato houses and a piggery at this property indicating a mixed farm economy.[29] The house was valued at 105 shillings and 176 acres were farmed by the occupants. Today this house shows evidence of re-building. Laurence Gogarty's house in Corballis was classified by the valuers as a first class (1B) house, showing how impressive some of the buildings associated with the strong farmer were.[30] In the House Books, it is described as a two-storey building with a west wing. It was valued at only 100 shillings despite receiving a 'high rating'. A 193 acre farm was associated with the house.

---

26. Valuations Office, House Books, Monknewtown parish, p. 20.

27. F. Aalen, 'Buildings', in F.H.A. Aalen, K. Whelan and M. Stout (ed.), *Atlas of the Irish rural landscape* (Cork, 1997), pp 145-79, see pp 159-61.

28. Valuations Office, House Books, Monknewtown parish, p. 18. The house and part of its land have recently been purchased by the state.

29. *Ibid.*, Duleek parish, pp 31-2.

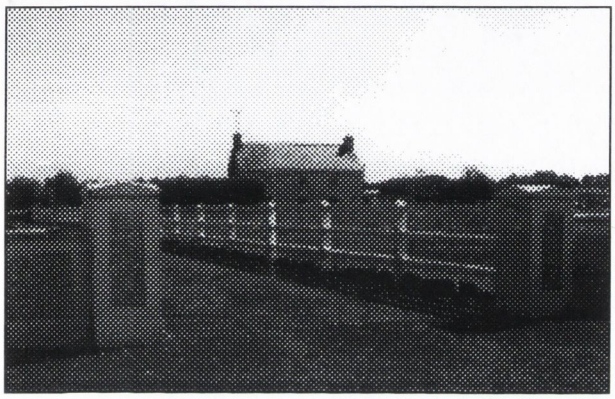
30. *Ibid.*, p. 48.



Knowth House (2a)



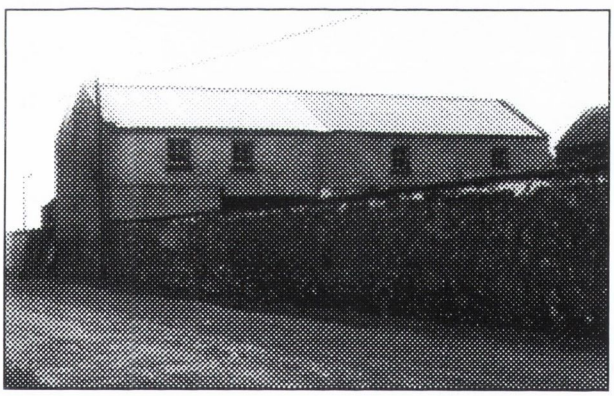
Roughgrange (3Ba)



Balfeddock (1a)



Donore (6a)



Donore (6a) outbuildings



Littlegrange (1a)

Fig. 8.7 Strong farmers' houses mentioned in the text.

At the lower end of the strong farmer's houses are single or two-storey, developed or transitional vernacular farmhouses with outbuildings often organised to form a front yard.[31] These modest farmhouses have adopted features from formal houses but still tend to conform to the old vernacular pattern of being one room in width. The house at Balfeddock (1a), where Patrick Drew farmed 84 acres, is typical of this transitional architecture. The house was valued at 75 shillings. It is two storey and slated with a centrally located entrance and chimneys at the gable ends. These houses can be elementary in plan with ground floor rooms arranged either side of a central hallway and two to three bedrooms on the first floor. Catherine Fulham's property at Donore (6a) on 95 acres and valued at 110 shillings, is unique in being thatched. Peter Roche's farmhouse at Littlegrange (1a) on 90 acres is two storeys with a central chimney stack. This house, valued at 100 shillings in 1854, is a good example of a townland house and it is still referred to as 'The Grange'.

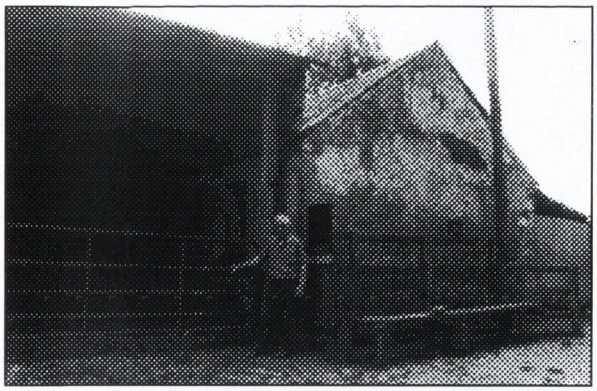
Like the houses of the landlords, these substantial farmhouses have a high survival rate (fig. 8.6). Only one of the sixteen houses (6%) has been destroyed since 1854. This was a house in Staleen townland (25Aa) valued at 80 shillings but with only 30 acres.

Small farms The houses of the small farmers were valued between 15 and seventy-five shillings. There were seventy-six of this class of houses in 1854 (appendix 1, table 8.3, figs 8.3, 8.8). According to Thompson (1802), the small farmers in county Meath (those with holdings of 1-10 acres in his classification) were a 'real disaster' because the tenants were finding survival difficult due to high rents. On the basis of the properties which have survived, the typical house of the small farmer in the Boyne was vernacular in style, rectangular in plan, with a central hearth and lobby entrance, a house type typical of eastern Ireland.[32] Rooms extend the full width of the house with one room opening off another. A porched entrance is typical. Stone is widely used but clay is often used in the gables. Oaten straw was used for thatching because in county Meath wheaten straw apparently grew too strongly. In the thatched examples, the roofs are generally hipped. This house type is best exemplified by two properties at Staleen. The house designated 26a is slated, was valued at 15 shillings and had seven acres; that designated 27a was thatched, valued at 25 shillings and had nine acres.

In some cases the buildings in this range of valuation have two storeys; the second story was probably a later addition. This remodelling seems to have taken place at Monknewtown (9a) on Thomas Ward's farm of 59 acres with a house valued at 50 shillings. The smaller windows in the first floor are evidence of the second

31. Aalen, 'Buildings', in Aalen, Whelan and M. Stout (ed.), *Atlas*, pp 156-9.

32. *Ibid.*, p. 152.



Staleen (26a)



Staleen (27)



Monknewtown (9a)



Staleen cottages (15a, 15b)



Donore (17Ag)



Donore (17Ah) during destruction

Fig. 8.8 Small farmers' houses and cottiers'/labourers' houses mentioned in the text.

building phase. This house has farm buildings to the front creating a yard in rudimentary imitation of the formal courtyards of farm buildings associated with strong farms.

Today, almost one-third (33%) of these residences have disappeared from the Boyne Valley Archaeological Park, and many that do survive are in poor condition.

Cottiers/labourers The pyramidal structure of rural society in the nineteenth century had a very narrow top and a very broad base. Indicative of this is the large number of houses with values of fifteen shillings and less (appendix 1, table 8.3, figs 8.3, 8.8). There were 184 of these 'fourth-class' houses in 1854, comprising almost two-thirds (64%) of the housing stock. These were the homes of labourers but more often housed the marginalised of society whose survival was only possible because of the nutritious potato. Usually, only a garden was associated with these houses, or an acre of potato ground.

This housing was dispersed throughout the area with distinct clusters of houses at the now deserted nineteenth-century hamlets of Craud in Dowth townland, 'Rossin' in Balfeddock townland, and in the settlement which grew up around Donore church in the townland of Staleen. The Ordnance Survey Letters of the first half of the nineteenth century describe a 'hamlet' of thatched houses at Craud.[33] The only indication of their existence today is a lane with low earthworks adjoining the remains of house foundations. In many places, the sole trace of these houses is a weed entangled gateway with everlasting sweet pea growing up through the weeds. Many of the roadside dwellings were replaced by public housing in the late nineteenth century (see below). Of the few remaining examples, a pair of houses at Staleen townland epitomise this house type. Both 'halves' had a value of 10 shillings. Peter Quinn (15a) had four acres and Mary Hamill (15b) had no land with her cottage. These house were single-storey, stone and mud-walled, thatched dwellings

Allied to this impoverished class of houses were better-built (albeit similarly valued) labourers' cottages on the margins of the demesnes. These were built by improving landlords for their labourers. According to Shaffrey, the grouping of dwellings together on an estate was a mid-nineteenth century development and considered to be an improving measure.[34] At Platin, seven labourers cottages (11a to 11g) were laid out on both sides of a lane. These houses were valued between eight and twelve shillings.

Although these fourth-class houses were once the most numerous, they are now a rarity in the Boyne Valley (fig. 8.6). Of 181, only 37 still stand, a survival rate of just 20%. Many of those that do survive are in a ruinous condition. D'Alton (1844)

33. Rev. M. O'Flanagan, Letters containing information relating to the antiquities of county Meath colleted during tyhe progress of the survey in 1836.

34. P. Shaffrey and M. Shaffrey, *Irish countryside buildings* (Dublin, 1985), p. 22.

described fifteen 'cleanly washed cottages' in the village which grew up around the Catholic church of Donore[35] Only one of these survives (17Ag), a typical central-hearth, lobby-entrance house with a galvanised roof replacing an earlier thatch. It was valued at twelve shillings and there was no land associated with the house. During the course of this fieldwork, the second last of these cottages was being demolished (Donore 17Ah). Ironically the nearby siting of the visitor's centre for the 'Archaeological Park' indirectly led to the destruction of this dwelling. It was levelled to make room for an extension to Daly's public house now renamed 'Brú na Bóinne', whose business has flourished since the opening of the visitor centre. Many of the houses that were spared are the better built houses on the improving estates.

If, following this analysis, we review Thompson's classification of rural society, it is clear that his observations regarding the labourers and noblemen still stand. However, he gives an inaccurate picture of what he refers to as the 'common farmer'. Those tenants with a 100--200 acreage were certainly not 'worst lodged' in the Boyne Valley. They lived in formal, classical style houses. Those with 50-100 acres were also reasonably well housed. This criticism of the farmhouses could reflect a begrudging attitude on the part of the observer, and possibly the untidiness of the grazier holdings.[36]

8C Institutional and industrial buildings

Ecclesiastical architecture The first half of the nineteenth century saw an outburst of church building in the east of Meath, a phenomenon which accelerated throughout Ireland after Catholic Emancipation. The earliest and strongest Catholic communities emerged in areas such as east Meath with Catholic landlords. Their presence fostered the existence of a sub-gentry of Catholic middlemen and strong farmers who encouraged the construction of ecclesiastical and institutional buildings in their locality. Many of these churches replaced vernacular buildings and became a focus for the development of villages in the mid-nineteenth-century.[37]

Griffiths' Valuation lists three Roman Catholic chapels within the Bend of the Boyne; Cruicerath (1d), Monknewtown (10Ab) and Rossnaree (7b). All three churches had a rateable valuation of 200s. Fr Walter Johnston, who was born in Rossnaree, built the present Rossnaree church *circa* 1820 on a site given to the community by the Osborne family of nearby Rossnaree House. The site for the new church lay close to the old church which it replaced. The entrance to the site of the previous church was known as 'Priest's lane' and a stone font from the earlier church

35 D'Alton, *History of Drogheda*, p. 464.

36. For an example of a similar attitude towards strong farmers, see M. Stout, 'The geography and implications of Post-Famine population decline in Baltyboys, County Wicklow' in C. Morash and R. Hayes (ed.), *'Fearful realities': New perspectives on the Famine* (Dublin, 1992), pp 15-34, see pp 21-2.

37. K. Whelan, 'The Catholic church, the Catholic chapel and village development in Ireland' in *Irish Geography*, xvi (1983), pp 1-15.

was apparently removed to the Osborne estate at Rossnaree.[38] Today, the church stands in its original form as a simple T-plan structure with panelled timber galleries in the arms and the sanctuary in the centre of the long south wall. The interior has a plaster groin vault.[39] Fr Denis Walsh, who replaced Fr Johnston, built the present stone church in Donore which replaced a thatched chapel, on ground granted to the church by the Nettervilles of Cruicerath. Donore church opened in 1838.[40] Thomas Hammond of neighbouring Sheephouse Quarry volunteered to supply all the cut stone for the front of the church at Donore.[41] Known as the Church of the Nativity of Mary Immaculate, this is a small church of squared limestone rubble, with an unusual front.[42] At Monknewtown the Church of the Assumption of the Virgin Mary was built *c.*1837. In that year Rev. Duff invited tenders for raising walls and re-roofing the chapel of Monknewtown, indicating that the church here is a re-modelled version of an earlier church on the same site.[43] This church has a simple T-plan.[44]

Fortunately all three churches survive in their original form and retain unchanged interiors. This is remarkable in the current climate in Ireland which has seen the widespread replacement of this type of church in favour of large car parks with churches of incongruous styles attached. The nineteenth-century church reflects the strength of faith in post Catholic Emancipation Ireland and are very important for their historical, aesthetic and architectural heritage. Appropriately, two of these churches, Monknewtown and Rossnaree, are listed in the County Meath Development plan. Donore needs to be afforded similar protection.

Widows House/Netterville Institute In 1826 the sixth Viscount Netterville bequeathed the castle at Dowth with the offices, garden and sixty acres for the support of a charitable institution for 'poor desolate widows and orphans'.[45] The medieval towerhouse was modernised for their accommodation. This is the 'widows house' on three acres at Dowth (32a) with a valuation of 150 shillings. There is a small Gothic style chapel beside it with three pointed windows and a small porch. It is now roofless. This was associated with the widows house. When the new institution was built it incorporated a chapel, thereby replacing the earlier building which was allowed to fall into disrepair.

---

38. O. Curran, *History of the Diocese of Meath 1860-1993* (Dublin, 1995), i, p. 336.

39 Casey and Rowan, *Buildings: North Leinster*, p. 447.

40. Curran, *Diocese of Meath*, i, p. 388.

41 S. Matthews, 'Under the hill of Donore' in *Journal of the Old Drogheda Society*, ix (1994), pp 118-28; see p. 126.

42 Casey and Rowan, *Buildings: North Leinster*, pp 65, 448.

43 Curran, *Diocese of Meath*, i , see pp. 832-3.

44 Casey and Rowan, *Buildings: North Leinster*, p. 448

45. T. Sadleir, *Georgian mansions in Ireland* (Dublin, 1915), p. 64.

The widow's house was replaced by the Netterville Charitable Almshouse in 1877. The architect was the well known George Ashlin. This imposing, forbidding building is a seven-bay, two-storey block, built of red-brick with limestone and blue-brick trim.[46] A plaque records the building's erection resulting from 'provident management' of the Netterville Charities by the trustees. The institution was closed in the 1960s: after having a number of owners, it was converted into a guest house in 1998.[47]

National Schools Griffiths' Valuation lists national schools in the parish centres within the Boyne Valley Archaeological Park. These were established by the Education Act of 1831 which set up the national school system on a parish basis.[48] Listed are two national schools beside the church at Donore village in the townland of Cruicerath (1b and 1c). They had valuations of thirteen and fourteen shillings respectively. These were vernacular, mud-walled buildings which were replaced in 1870 by the present school house.[49] At Monknewtown (10Ac) the parish school and the master's house were valued at thirty shillings. The present buildings on the site appear to be late nineteenth-century in date and must have replaced the buildings mentioned in the valuations. The schoolhouse at Dowth (32b) also had a valuation of thirty shillings. Roofless remains of this single-storey building with its pointed windows stand to the west of the towerhouse at Dowth. An impression of being a student at this school house at Dowth is evoked by John Boyle O'Reilly in his poem *The Old School Clock*. The original clock was one that hung on the wall of the Netterville schoolhouse at Dowth, where his father William David O'Reilly was the school teacher.[50]

Watch-house Amongst the more unusual buildings listed in the 1854 valuation is a watch-house (6a) in the graveyard at Sheephouse with a rateable valuation of ten shillings. This simple, single-roomed, stone built structure was used by watch men who protected the graves at Sheephouse from 'body-snatchers', an illegal practice which was a major concern to people in the eighteenth and nineteenth centuries. During this period bodies were removed from graveyards to be sold on for medical dissection.[51] This measure was needed because the graveyard at Sheephouse, at the

46 Casey and Rowan, *Buildings: North Leinster*, p.230

47 P. Synnott, The Netterville monument and family: formerly of Dowth, county Meath (unpublished family history), pp 16-7.

48 Shaffrey and Shaffrey, *Irish Countryside Buildings*, p. 78.

49 Matthews, 'Donore', p. 124.

50 P. O'Reilly and B. Tuite (ed.), *The cry of the dreamer and other poems* (Drogheda, n.d.) pp 15-6.

51 J. Fleetwood, *The Irish body snatchers: a history of body snatching in Ireland* (Dublin, 1988).

original Donore village, had become isolated from its parishioners, most of whom were living in the new chapel village of Donore in the townland of Cruicerath.

Mills *Griffiths' Valuation* lists six mills in the area and the House Books provide detailed information on the mills of the area. They have a wide range of valuations, from the old corn mill at Dowth mentioned in eighteenth-century deeds to the then modern mill at Monknewtown. Monknewtown (11a) was the most impressive industrial mill in the area and, as a result, this complex had the highest valuation for a property in the study area in the mid-nineteenth-century (£134). The corn and flour mill of William Rogers had a constant supply of water for eight months of the year and a reasonable supply for the remainder. Steam was also used to power the mill when the water power was not sufficient. One-third of the work was effected by means of steam. The metal water wheel turned three pairs of stones for grinding flour. It was almost constantly employed. The principal block is a slate roofed, seven bay, four storey structure of limestone with cut stone door and window surrounds. Flanking this is a redbrick chimney, and a four-storey storehouse.[52] Another impressive mill stood at Proudfootstown (1a) with a valuation of 600 shillings, but all that remains today are the storehouses. The mill at Rossnaree (8a) was valued at 400 shillings and a reference in the Ordnance Survey Field Books to it being 'unfinished' suggests that it was rebuilt on the site of the earlier eighteenth-century mill (see chapter 7).[53]

The remaining mills are smaller, vernacular-style structures. The oat mill at Roughgrange (8Aa) was valued at 200 shillings. It was owned by William Norris and had three pairs of stones. It worked for about eight months of the year although the daily working time was uncertain. It was subject to backwater in flood.[54] The only indication of a mill at this site is the presence of a millstone by the riverside and traces of an artificial channel. At Staleen (30Ba) the mill of Peter McCullagh was valued at 120 shillings. It also had three pairs of stones, two working constantly, and ground twenty-five barrels a day.[55] This mill is still partly standing and the kiln also survives. Lastly, the 'vacant corn mill' at Dowth (8Ab) had two pairs of stones for grinding corn and flour, one pair for shelling, another for grinding corn. In 1837-8 there were two water wheels with buckets present. The water mill was employed for seven months of the year and thirteen hours a day. Corn and flour could not be ground at the same time. There was also a corn kiln. A total of twenty barrels were

52. Valuations Office, House Books, Monknewtown parish, p. 17.

53. N.A., Ordnance Survey Field Books, Donore parish N.A.4.1334,

54. Valuation Office, House Books, Duleek parish, p. 31.

55. *Ibid*., Donore parish, p. 17.

ground per day.[56] The only evidence on the ground today for this mill is the presence of a millstone at the site.

8D Land tenure

In determining the factors which have resulted in the very low rates of preservation particularly in the lower-class housing, the nature of land tenure needs to be examined. Thompson (1802) observed in county Meath that the house seldom lasted longer than the lease.[57] Although this is an exaggeration, it points to the fragility of the lowest class of housing in the Bend of the Boyne. Thompson also reasoned that it was in the tenant's interest to run the property down. The lease in Meath was 21-31 years or three named lives which was considered good at the time for the stronger tenants.[58] The standard length of lease is confirmed in deeds (discussed in the preceding chapter) and papers relating to the Rathmullen estate which quotes a thirty-one year lease or three lives.[59] Again, in a will dated 1816, Henry Coddington advised that his heirs should let the lands of Sheephouse and Donore for the terms of three lives or thirty-one years and the 'best improved rent that can be reasonably had for the same should be reserved for the land'.[60] A condition of the rental was that the premises be kept in repair. However, the Field Books list the type of land tenure for each holding and in the majority of cases – the majority consisting of the very poor – it states that the land was held 'at will', i.e. on a yearly basis.[61] Rents were paid half yearly on All Saints Day and May Day. According to Vaughan, only 20% of tenants in Ireland had leases; however the law recognised that in practise a yearly tenancy continued from one year to the next and did not expire at the end of each year. This could only be changed by mutual consent or by litigation in the courts. The laws covering leasehold and descent were very much to the landlord's disadvantage as the landlord was often unaware of the number of subleases of the middlemen. Long leases allowed middlemen to exploit the land as landlords were reluctant to let good land to small holders.[62]

The type of land tenure greatly influenced the agricultural situation in pre-Famine Meath.[63] Insecurity of tenure was detrimental to agricultural improvement. A class was allowed to accumulate on the land which became non-productive in

---

56. *Ibid.*, Dowth parish, p. 8.

57. Thompson, *Statistical survey*, p. 65.

58. Thompson, *Statistical survey*, pp 96-101.

59. N.L.I., Encumbered Estates, xliii, 19 May 1854.

60. N.A., T11692, Copy of will and codicil of Henry Coddington Esq. 1816, pp 5-6.

61. Valuation Office, Perambulation Books. This source lists the types of tenure arrangement.

62. Vaughan, *Landlords*, p. 7.

63. M. Kenny 'Land Tenure in east Westmeath and its influence upon the state of agriculture, 1820-1840' in *Riocht na Midhe*, vi (1978-79), pp 33-48.

economic terms after the tillage boom came to an abrupt end in 1815. The baronies of east Meath carried an inordinately high cottier element in 1851.[64] The majority of the poor in county Meath, as in Leinster generally, were these landless who lived in the most wretched of dwellings.[65] Numerically they represented a substantial portion of the population, in what was, in many ways one of Ireland's most affluent counties. Rural poverty was most in evidence in tillage areas, where there were large numbers of strong farmers as well as resident landlords.[66] The sub-division of agricultural holdings was regarded by 1830 as one of the chief causes of the backward condition of Irish agriculture and the poverty of the smallholders. This sub-division of holdings was unsustainable. With a slump in agricultural prices, the small farmers were unable to switch to grazing, their ability to change being further hindered by the size of their holding.

The leasing structure in the Bend of the Boyne is exemplified in the hierarchy of buildings and land holdings in Balfeddock townland (fig. 8.9). Patrick Drew held 165 acres of land from Charles Caldwell of Newgrange House and James Newman. A strong farmer, he lived in house valued at 75 shillings. Drew sublet ten houses and a small portion of his land to others on the margins of his property. The values of the house varied considerably, from a 100 shilling house to eight shilling 'cabins'. One of Drew's tenants (sub-tenants of Caldwell), Judith Ogle – who was herself housed in a dwelling with a value of only ten shillings – sub-let a five shilling house to John Leech. The precarious and impoverished position of these sub-sub-tenants became totally unsustainable with the demise of the potato. Therefore, the leasehold structure recorded in *Griffiths' Valuation* captured a society on the verge of crisis. With the breakdown of this system also came the deterioration of the housing stock.

8E Post-Famine decline and development

The baronies of east Meath showed a net demographic decline of 14% in the Famine decade.[67] This is relatively low when compared to figures of 20% for the whole of East Leinster and parts of north Meath where the population was halved in the period.[68] An examination of the decennial census figures for the Bend of the Boyne indicates that the effects of the Famine (1845-48) on the Boyne population was immediate beginning a downward trend in population figures and a corresponding decrease in house numbers for the area (table 8.2, fig. 8.10).

---

64. Jones Hughes, 'East Leinster', p. 239.

65. Jones-Hughes, 'Meath and Cavan', p. 125.

66. *Ibid.*, p. 129.

67. Jones-Hughes, 'East Leinster', p. 239.

68. *Ibid.*, p. 239.

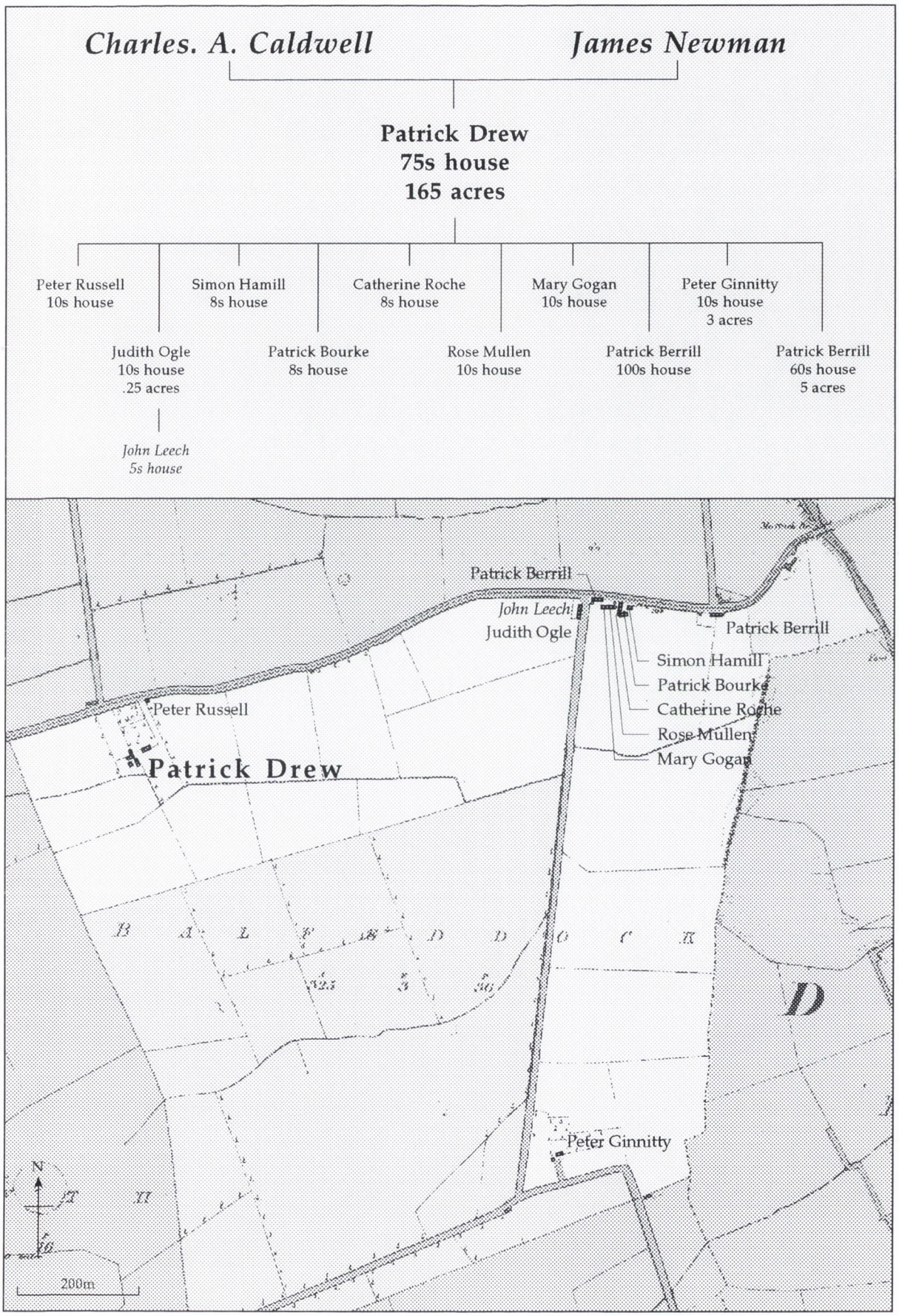


Fig. 8.9 Landholding and housing in the townland of Balfeddock (Griffiths' Valuation 1854).

This decline was not universal within the Bend of the Boyne. Donore experienced growth in the 1870s, largely due to the input of local landlord Sharmon Crawford of Staleen. The number of houses in Donore increased by a fifty per cent, from 21 in 1851 to 31 in 1881.[69] For the most part, however, population decline continued into the twentieth century, as was the case nation-wide.[70] Some tenants emigrated to America in the years following the Famine such as those on Chamney Grave's Rathmullen Estate near Drogheda whose emigration was financed by the landlord.[71]

Table 8.2
Population in the Bend of the Boyne 1841-1911[72]

Year	Population	Houses	Uninhabited Houses
1841	2433	404	1
1851	2010	397	2
1861	1514	345	0
1871	1492	319	0
1881	1363	288	8
1891	1216	321	0
1901	897	289	0

This population decline facilitated the consolidation of land holdings and resulted in increased prosperity and security amongst the stronger tenants whose dwellings have survived to the present day. It also facilitated the removal of the lower echelons of society, the cottiers/labourers whose dwellings have largely disappeared.

The general picture of the Great Famine and its impact in the area are sketchy, but it did not affect the lower Boyne valley as severely as other parts of the country. There are, however, indications of general depression and disease in the study area. A Parliamentary Report in 1846 describes a field in Oldbridge in which all the potatoes appeared to be rotting in pits.[73] A cholera epidemic – one of the diseases associated with the Famine – in Rossnaree took the life of a young parish priest and a grave slab in Rossnaree church records this tragedy. Information contained in the Perambulation Books suggests that some of the landlords showed some leniency about collecting rents during the Famine years. For instance, the Earl of Sheffield, landlord of Monknewtown, reduced rents from 1846.[74] Documentation relating to the Encumbered Estate at Rathmullen describes a 'temporary abatement' made to some of the tenants 'by reason of the depression of the times'.[75] Another symptom of

69 Census of Ireland 1881, county Meath, i , 8 (Dublin 1881), p. 668

70. C. O'Grada, *Ireland: a new economic history 1780-1939* (Oxford, 1994), p. 213.

71. N.L.I., Encumbered estates, xliii, 19 May 1854.

72 *Census of Ireland*, 1841, 1851, 1861, 1871, 1881, 1891, 1901. The discrepancy between the figures for the total number of houses within the Boyne Valley Archaeological Park and the number in the censuses is due to the fact that the park area takes in portions of many townlands and the census gives total figures for those townlands. It is not known why the 1891 records a rise in house numbers despite the fall in population.

73. British Parliamentary Papers, Famine Ireland, 8, 1846, 3, see p. 9.

74. Valuation Office, Perambulation Books.

75. N.L.I., Encumbered estates, xliii, 19 May 1854.

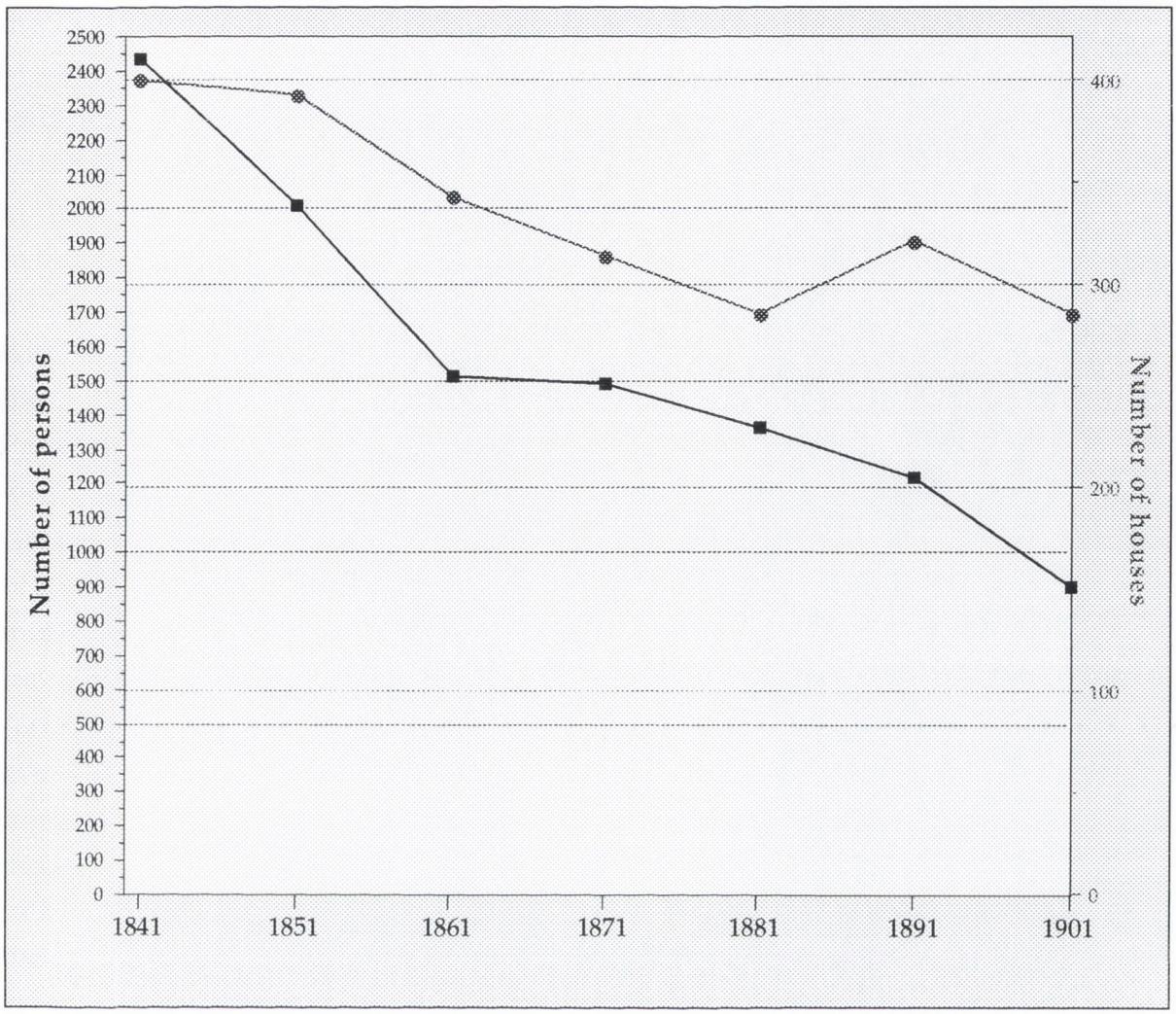


Fig. 8.10 The decline in population and house numbers in the Bend of the Boyne (Censuses of Ireland).

the depression of the post-Famine years was that the large industrial mills such as Monknewtown, built in the boom time of the early century, became encumbered and sought new investors.[76]

There was also growing contention between landlords and tenants. A *cause celébrè* in the 1870s was the Dowth eviction case. In 1873 James Elcock, a local miller, began to build a wool store using stones from the passage tomb at Dowth. He was advised by Gradwell, the local landlord of Dowth Hall, to replace the stones or face eviction, which duly occurred in 1879. The Elcock family had a yearly tenancy permitting them to bring an action for disturbance. With the support of some members of Parliament, including Parnell, James Elcock was awarded the full amount claimed with only a meagre £50 allowed to repair the injury to the mound going to Gradwell.[77] The perception at the time was that Gradwell was using the destruction of the tomb as an excuse for evicting the Elcocks. It is more likely, however, that his motive was the preservation of the monument itself, because in September 1885 the tumulus of Dowth was vested in the State under the Ancient Monuments Protection Act (1882).[78] Negotiations to vest Newgrange also began in 1882. However, the eventual vesting of Newgrange was as a result of the owner being alarmed by a report of its deterioration. The Board of Works denounced any interference with the monuments. A defacement of a stone in the chamber of Newgrange in 1898 resulted in a succesful prosecution and notices were placed around the monument making the public aware of the offence.[79] The monument was taken into State care in that year.

Growing tension between landlord and tenants also manifested itself in the rise of the Fenian movement in the late 1860s. Within the study area, this was evidenced by the rise to prominence of local patriot and leader John Boyle O'Reilly. O'Reilly was born at Dowth and was transported to Australia for his subversive activities. Before his exile, O'Reilly had inscribed his initials into a stone at Dowth church. This became a focus of commemoration by 'home rulers' to the annoyance of the local gentry. So anxious were the local landlords that Richard Gradwell of Dowth Hall personally arranged for the removal of this stone to O'Reilly's grave in Holyhood cemetery in Boston, USA.[80] A later (1930s) monument erected to the memory of John Boyle O'Reilly is still a focus for commemoration and an attraction for visitors from both America and Australia.

---

76. M. Lyons, *Illustrated encumbered estates: Ireland, 1850-1905* (Clare, 1993), pp 168-9.

77. M. O'Kelly and C. O'Kelly, 'The tumulus of Dowth, county Meath' in *Proceedings of the Royal Irish Academy*, C, lxxxiii (1983), pp 188-90; Rev. J. Graves, 'The Dowth eviction case' in *Journal of the Royal Society of Antiquaries*, cx (1980), pp 205-9.

78. N.A. OPW 7148/96

79. N.A. OPW 7724/99

80. M. Conway, 'The Boyle O'Reilly stone' in *Journal of the Old Drogheda Society*, iv (1968), pp 3-7.

Public housing The enactment of the Labourers (Ireland) Acts from 1893 to 1919 resulted in the replacement of some of the fourth class housing by stone cottages. This was part of a major public re-housing scheme in Ireland which sought to provide suitable dwellings and half-acre allotments for landless labourers who were inadequately housed.[81] In the Bend of the Boyne and elsewhere, these cottages came to be commonly known as 'Parnell Cottages' because Parnell lobbied for the improvement of the housing of this disadvantaged class in rural Irish society.[82] The housing programme was a joint venture between state and local authorities, and the earliest concerted public housing initiative in Britain and Ireland.

These labourers' cottages form a distinctive house style in the Bend of the Boyne. They were designed by a local architect, P.J. Dodd of Drogheda (fig. 8.11).[83] For the most part they are detached dwellings, one and a half stories high with unplastered stone walls, dressed quoins and slated roofs. They have a brick finish on the windows and doors, which in modern times is customarily painted in bright colours. These houses are remarkably well preserved, a tribute to their architect. The only exception is a pair of semi-detached houses in Newgrange townland. There is a fine terrace of nineteenth-century (post 1816) labourers' houses built with stone and brick on the Oldbridge estate at the south-east corner of Sheephouse townland.

8F Conclusions and Conservation statement

In order to support the broader approach to cultural landscape conservation argued for in this study, the components representative of each particular historic period have been identified and a strategy for conservation carefully prepared. The full range of nineteenth-century buildings was examined to illustrate this argument. The estate system of land ownership during this period manifested itself in a settlement hierarchy with a diversity of house types and associated holdings, key indicators of the class structure then prevalent in the area. The main building components are the secluded landlords' mansions set in their demesnes with a planned range of estate buildings; the classical style two-storey houses of the strong farmers; the transitional/vernacular houses of the small farmers and the dwindling number of the 'cabins' of the cottier/labourer class. A high percentage of fourth-class housing is a symptom of a largely tillage-based economy which resulted in considerable sub-division of the smaller holdings. This tillage economy was served by the Boyne Navigation and a multiplicity of both vernacular and industrial mills.

---

81 F. Aalen, 'The re-housing of rural labourers in Ireland under the Labourers (Ireland) Act, 1883-1919' in *Journal of Historical Geography*, xii (1986), pp 287-306,

82 F. Aalen, 'Public housing in Ireland' in *Planning Perspectives*, ii (1987), pp 175-93, see p. 179.

83 J. Geraghty, 'P.J. Dodd of Drogheda: architect and civil engineer' in *Journal of the Old Drogheda Society*, ix (1994), pp 7-37, see pp 24-5.

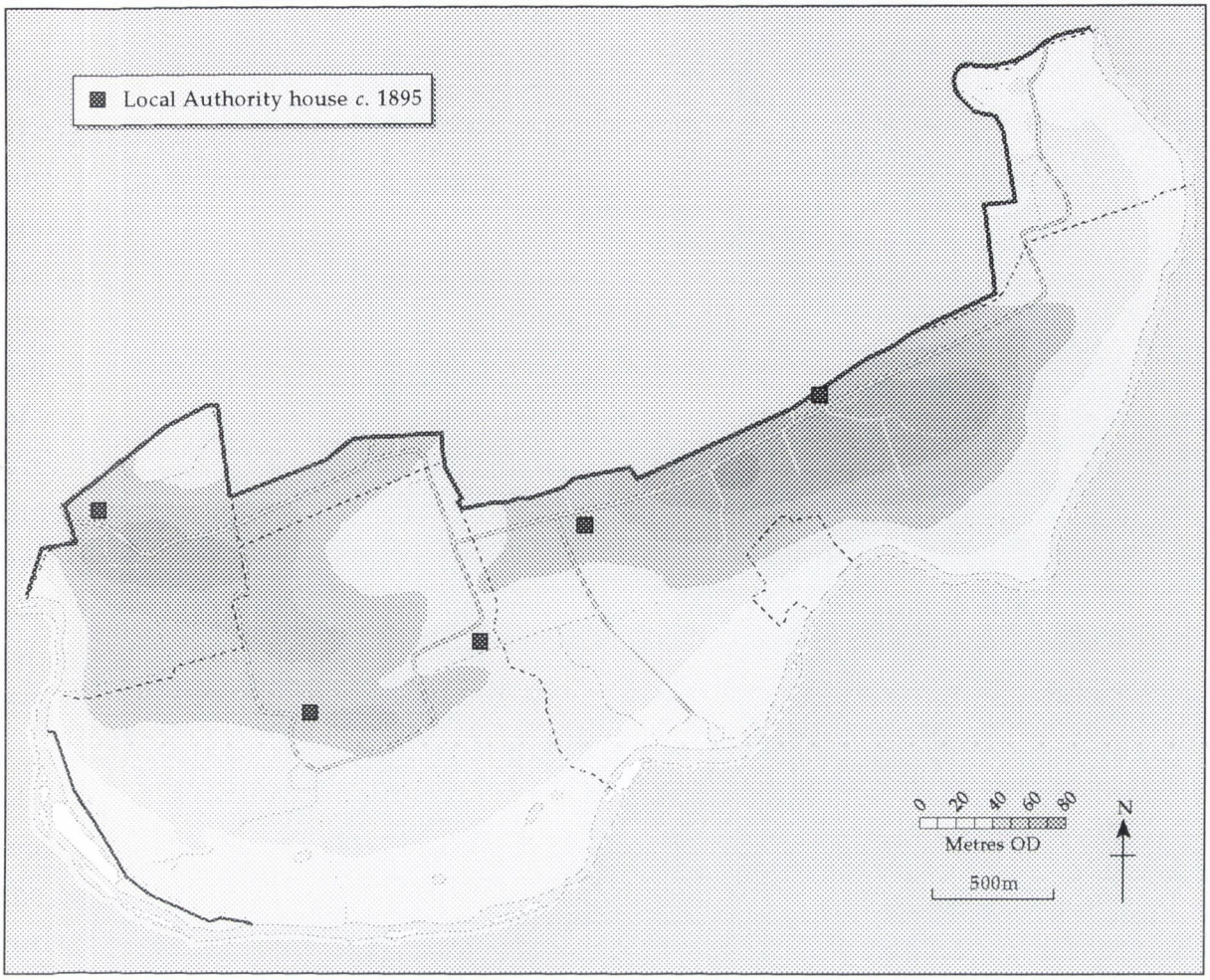


Fig. 8.11 Local Authority housing in the 'core area' of the Boyne Valley Archaeological Park (after Higginbottom).

A staggering 58% of the nineteenth-century housing stock has disappeared between 1854 and 1998 and there is a direct correlation between house value and the likelihood of preservation; the more substantial houses of the period have largely survived. As a result, the present housing stock no longer accurately reflects the tiered nature of nineteenth-century society. However, good representative samples of the four major house types survive. These should be identified as 'critical' housing stock and preserved. The 'Big House' and building enterprises of the elevated social minority have been well studied. In contrast, the social history of the modest housing of the mass of the Irish population in the nineteenth-century is less well known. Vernacular buildings were ignored by the assessors who compiled the House Books during the course of the *Primary Valuation*. Today, the once typical, vernacular-style building is poorly preserved in the Boyne Valley Archaeological Park. Because the vernacular component is most at risk, the small percentage of houses remaining (appendix 1, table 8.3) should be prioritised for conservation, recorded and officially listed in the Meath County Development Plan.

Current demand for property in the countryside and the problems experienced in obtaining planning permission for new developments within the study area have encouraged buyers to renovate older properties. This is to be welcomed; a number of the vernacular buildings described in this chapter are now in the process of being re-furbished. However many of the owners are experiencing difficulty in obtaining specialist information on the use of traditional materials and building techniques. This is urgently needed if they are to sympathetically restore these buildings and adapt them for modern use. Meath County Council must take a pro-active approach to preserving the remaining stock of vernacular buildings. The current county Meath Development Plan states that sympathetic renovation or re-use of buildings will be encouraged.[84] In practice, this means that they will have to provide detailed guidelines and conditions for any proposal affecting these traditional buildings. There are precedents for this; Cork County Council provides architectural advice clinics in Kinsale and Clonakilty to encourage conservation of old buildings.[85] In Northern Ireland, the Environment Service makes financial help available for many of their listed buildings and gives free technical advice on restoration.[86] Similarly, National Parks outside Ireland, such as that at Dartmoor, have a National Park Committee to make grants and loans available for the repair of historic buildings. This is done to create some harmony between old and new buildings within the park area. The National Park Committee (within the County Council) in co-operation with the Local Planning Authority also advise on the style of new housing in the Park and

84 Meath County Council, County Meath development plan (Navan, 1994).

85 N. Mansergh, 'Housing and conservation' in J. Feehan (ed.), *Environment and Development in Ireland* (Dublin, 1991) pp 109-13, see pp. 111-2.

86 H. Hossack, *Buildings at risk* (Belfast, 1993), pp 2-3

encourage traditional styles and techniques, use of local materials, and appropriate siting, colours and detailing.[87] The vernacular tradition in the Bend of the Boyne endures as a valuable legacy, still available as a model and inspiration for future development in the area.

87 I. Mercer, *Buildings in the Dartmoor National Park* (Dartmoor, 1979).

CHAPTER 9
THE MODERN LANDSCAPE

9A Introduction

Many aspects of the modern landscape have been included in the previous chapters in the discussion of the current status of historic landscape components within the Boyne. Therefore, this chapter focuses on events which had a distinctive landscape impact in the twentieth century. In the Bend of the Boyne these events were; colony migration in the 1930s (9B), the Emergency fortifications (9C), and grant-aided farm development 1950 to present (9D).

9B Colony migration

The early years of the twentieth century witnessed the dismantling of the estate system of land holding, and its replacement by the present of owner/occupier system. This land reform was brought about through a series of lands acts in which the British government encouraged Irish landlords to transfer land to their tenants.[1] Although revolutionary in its scope, this change in land tenure had few immediate landscape implications; it helped maintain the *status quo* in the Bend of the Boyne.

Significant change was not to occur until the election of the populist Fianna Fáil government under the leadership of de Valera. From 1932, a scheme of state assisted migration let to the transfer of Irish speaking families from congested districts in the west of Ireland to five locations in county Meath including the Bend of the Boyne. The availability of land in Meath was partly due to the Economic War of the 1930s which damaged the Meath graziers. This led to a dramatic upsurge in land purchase by the Land Commission between 1935 and 1940.[2] This was to have an architectural impact on the landscape in the form of a distinctively-styled house built by the Land Commission for the migrants (fig. 9.1). The migrants were concentrated in the townlands of Newgrange and Dowth on land formerly held by the Gradwells of Dowth Hall. The houses were built on the roadside, mainly single-storey, with a porch, a tiled roof and roughcast walls. Although the migrants failed to establish a viable Irish-speaking community, they remain a distinctive cultural group within the population of the valley.

---

1. K. Whelan, 'The modern landscape: from plantation to present', in Aalen, Whelan and Stout (ed.), *Atlas*, pp 67-103, see 97-8.

2. W. Nolan, 'New farms and fields: migration policies of state land agencies 1891-1980' in W. Smyth and K. Whelan (ed.), *Common ground: essays on the historical geography of Ireland* (Cork, 1981), pp 296-319.

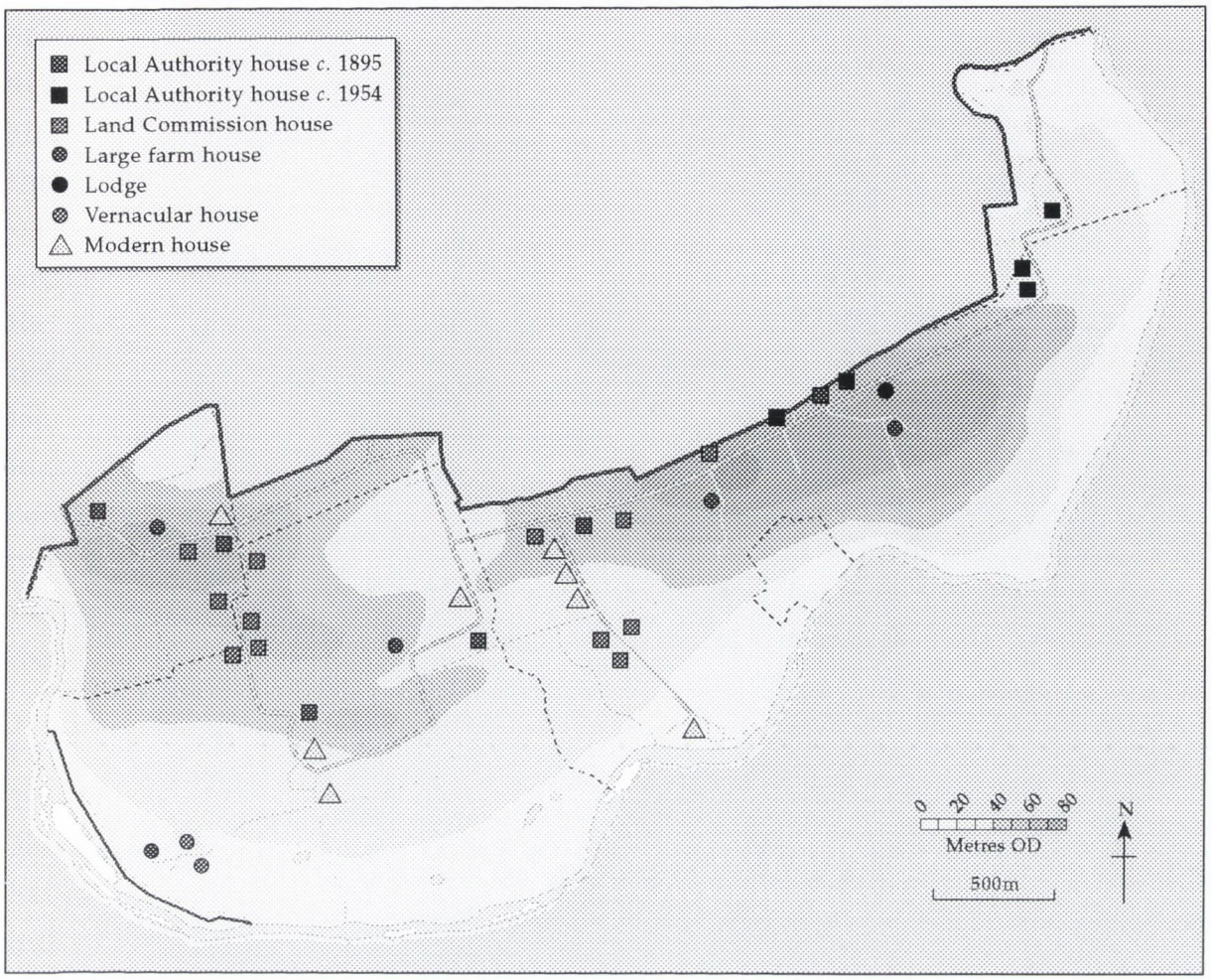


Fig. 9.1 Housing in the 'core area' of the Boyne Valley Archaeological Park (after Higginbottom, Dúchas, n.d.).

9C The Emergency (1939-45) and the Bend of the Boyne

9Ci – Introduction A recurring theme running through this study has been the strategic significance of the Boyne as a control on northern approaches to Dublin; this was apparent during the Anglo-Norman period, the 1641 rebellion and the Battle of the Boyne in 1690. The Boyne Valley's strategic importance is again underlined during the Emergency when the rivers Boyne and Blackwater formed the planned main line of resistance, in effect the Irish Maginot line, in Ireland's defence against a threatened overland invasion by British forces. The main landscape impact was a line of fortifications which comprised blockhouses and machine-gun pits concentrated along the river banks. After describing the concept and development of blockhouses and their use in artillery warfare, the blockhouses on the Boyne are examined in detail to illustrate the defensive role played by this area in the Emergency. The final section of the chapter summarises the results and presents a case for the preservation of these defensive works.

Political background As the major European powers prepared for war in the 1930s, Ireland made plans to defend its neutrality. In September 1936 the Irish government established a ministerial committee on national defence chaired by Eamon de Valera which agreed on a clear policy.[3] Ireland's recently won independence from Britain would not be surrendered lightly and its neutrality would be defended. Ireland would stay out of war unless attacked by another country. The declaration of war in 1939, therefore, posed a major threat to Ireland's national security. With the fall of France and escalating German U-boat activity there was concern that Ireland would be invaded by England so they could take control of the deep water ports. The Emergency Powers Orders were enacted and preparations for the defence of the country set in motion.

Defence plan The Defence Forces produced a number of plans detailing various operational procedures to deal with this perceived threat, the two main plans being an anti-German invasion plan and a plan to counter a British invasion.[4] This study concentrates on the defence plans for a British invasion because these had a direct bearing on the Boyne valley. A transcript of a lecture given by Major Tuohy (Eastern Command) dated 24 March 1941 and held in the Military Archive outlines the security problem faced by the defence forces in 1941 and their proposals to deal with them:

> In the eastern command the defence problem is twofold... they had to prepare to meet British and German aggression... in the event of British aggression the main effort will

3. E. O'Halpin, 'The army in independent Ireland' in T. Bartlett and K. Jefferey (ed.), *A military history of Ireland* (Cambridge, 1996), pp 407-30, see p. 420.

4. C. Mangan, 'Plans and operations' in *Irish Sword*, xix (1993-95), pp 47-56, see p. 47.

be made in Eastern Command. Because Britain has forces in the Six Counties invasion overland is much easier. The British want to secure harbour facilities and airports, in the west and south west and to prevent this country being used as a base for operations against Britain.[5]

In order to meet this threat Major Tuohy identified a need to:

> Provide observation groups on the frontier and coast. Behind the observants is the land frontier... We have a screen of cyclists from Dundalk to Cavan whose mission is to delay the advance of the enemy by every and any means in order to gain time to enable us to bring our main forces against him... assisted by the Local Defence Forces (LDF).

This he refers to as the 'Outpost Line' (OL). Behind this outpost line it was proposed to place 'an infantry detachment along the line of the Boyne and Blackwater' which he refers to as the 'Main Line of Resistance' (MLR). The rivers Boyne and Blackwater were considered a 'good line' because they acted as a 'tank obstacle'. All crossings were to be covered by blockhouses and machine gun pits 'were to be placed on the north side of Drogheda, Slane, Navan and Kells'. The proposals outlined formed the basis for Operations Orders sent out from Portobello Barracks, Dublin to its Eastern Command on 9 July 1940. According to these orders:

> Circumstances require the observation of the northern territory and the covering of routes from the border towards Dublin... Provision will be made for... prompt opposition to a hostile advance including delaying action by a small detachment between the border and a final line of defence. The final line of defence will be the general line of the rivers Boyne and Blackwater from the sea to Lough Ramor.[6]

This plan to counter a British offensive had two main elements; firstly, a defence of the ports and secondly, defensive operations against an overland assault along the east coast (Fig. 9.2). Observation groups were to be placed on the frontier and coast. Behind the observers was the land frontier where a screen of cyclists and cavalry squadrons were to operate as a covering force from the border back to the main line of resistance, with the task of providing information on the enemy and imposing the maximum amount of delay north of the line. This outpost line was assisted by the Local Defence Forces, who had been established by the Emergency Powers Order 1940. The Local Defence Force was considered so important in the border areas that it was proposed that the army take over its training in the Garda Districts of Louth/Meath, Cavan/Monaghan and Sligo/Leitrim.[7] A 'cyclist' (bicycles rather than motorcycles) squadron was located at Dundalk and another at Manorhamilton, while motor squadrons were located

5. Military Archive, Cathal Brugha Barracks, Dublin, EDP/E/3/5.

6. Military Archive, EDP/E/3/1, Operations Order No. 20.

7. Mangan, 'Plans and operations', see p. 51.

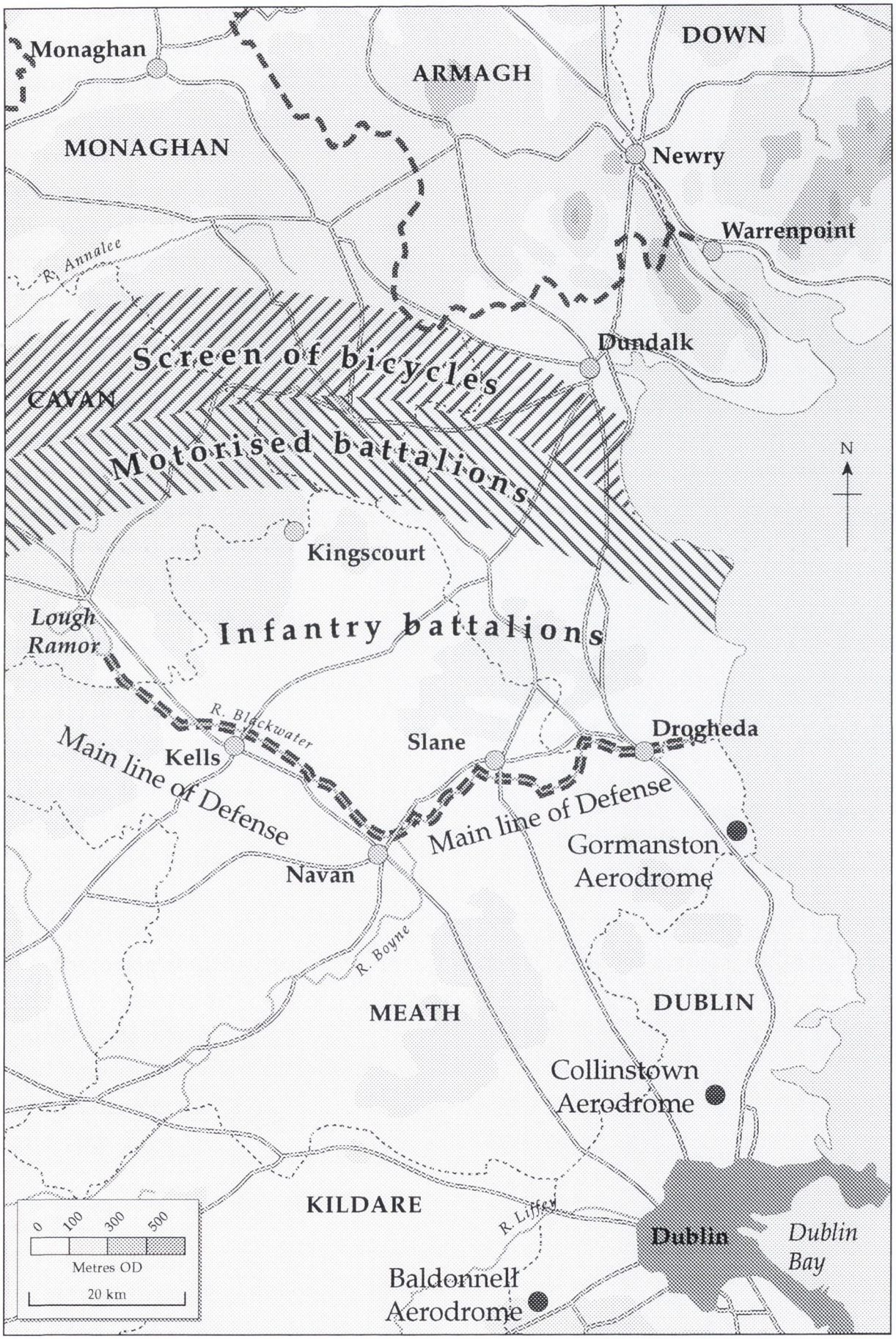


Fig. 9.2 Defence plan for Eastern Command during the Emergency.

at Kingscourt, Cavan and Mohill. Three infantry battalions were to provide forces for a series of outposts forward of the main line of resistance. The main defence effort was to be made along the line of the rivers Boyne and Blackwater, extending to Lough Ramor, Lough Sheelin, Arvagh and Roosky, along the Shannon to Carrick-on-Shannon and then across to the Curlew mountains. The was considered a good line of defence as the rivers acted as an obstacle to tank manoeuvres. This line was planned as a series of strong points covering main routes to the south.[8] All the crossings were to be covered by blockhouses, and machine gun pits were to be constructed on the north side of Drogheda and at Slane, Navan and Kells.

Blockhouses Being concerned with the landscape impact of the Emergency, this section focuses on the identification and interpretation of fortifications associated with the defence of the rivers Boyne and Blackwater i.e. blockhouses and machine gun pits mentioned in the official defence plans. At this stage, however, it is necessary to introduce the concept of a 'blockhouse' before progressing to the Boyne examples. Blockhouses are reinforced concrete artillery emplacements and are usually referred to as 'pillboxes'. They were first used by the Russians in the Russo-Japanese War. The concept was copied by the German army in World War I and later imitated by the British who also built them along the east coast of England during the Great War.[9] These blockhouses were circular in plan resembling the decorative boxes used to hold pills; hence the name 'pillbox'.[10] They are found across Europe and were extensively used on the Western Front during World War I.[11] During 1940, at the onset of World War II, more than 18,000 were built in Great Britain. However by September 1941 all pillbox construction was stopped and subsequently forbidden in 1942 because these fortifications were deemed vulnerable to high velocity guns.[12]

The basic structure is a squat, strong building, invariably built of concrete, which is usually flat-topped, with one or two entrances protected by a covered porch or detached wall. Internally splayed horizontal slits, firing loops, loop holes and embrasures are a standard pillbox features. Most were designed to take rifle fire or light machine-gun fire and it was also hoped that the walls would resist anti-tank guns.[13]

---

8. *Ibid.*

9. I. Brown, *Twentieth century defences in Britain: an introductory guide* (London, 1995), p. 79.

10. H. Willis, *Pillboxes: a study of UK defences 1940* (London, 1985), p. 2.

11. P. Oldham, *A guide to the design, construction and use of concrete pillboxes in 1914-1918* (London, 1995).

12. A. Saunders, *Fortress Britain: artillery fortifications in the British Isles and Ireland* (London, 1989), p. 219.

13. Brown, *Twentieth century defences*, pp 79-84.

9Cii – Blockhouses on the Boyne An exhaustive examination of material in the Military Archive produced little documentation on the works associated with the defence of the Boyne and Blackwater. A map of the Eastern Command identified a total of only eight blockhouses along the rivers Boyne and Blackwater between Drogheda and Navan.[14] A similar dearth of official information was experienced in Great Britain where pillbox research is at an advanced stage. When Henry Willis, pioneer of pillbox studies, undertook his survey in the 1970s, moved by a concern for the rapidity with which pillboxes were being demolished, he was advised unofficially to go out and count them as no details of design or accurate maps of the many miles of defences were in official records. He did just that and has recorded a staggering 18,000 sites.[15] It was thought essential, therefore, that this trawl through the archives should be followed by field reconnaissance in the Boyne valley with the official information forming the basis for a field survey of the Boyne/Blackwater environs. As a result, thirty-seven pillboxes have been currently identified between Baltray on the Boyne estuary and Navan. Another five pillboxes form a defensive ring around Gormanston Army camp. Thirteen of these pillboxes lie within the area designated as the Boyne Valley Archaeological Park (fig. 9.3).

Location The pillboxes are situated mainly on the south side of the Boyne close to the river bank, and tend to be grouped opposite major road junctions and bridging points. The greatest concentration, ironically, is at Oldbridge (site of the main conflict in the Battle of the Boyne 1690) and in the environs of Slane, an important junction on the Dublin to Derry road. Some of the pillboxes are so close to the river that they would have been prone to flooding. These have a limited and very localised field of cover. However, interspersed with these are sites which are more prominently positioned and provide a wider field of cover such as that at Highfield (31). There were two pillboxes covering the Boyne Viaduct which was considered a prime target; one at Weirhope, the other in the yard of the Drogheda Railway station which was recently demolished.[16] Those along the south side of the river are consistently aligned to the opposite bank of the river. They are occasionally incorporated into existing features such as the demesne wall at Oldbridge (11 and 12), a canal lock at Fennor (25) and a burial mound at Rossnaree (22).

14. Military Archive, Blockhouses: Eastern Command, EDP/1/6; DD/C/364D/24/2/41.

15. Willis, *Pillboxes*.

16. Mangan, 'Plans and operations', p. 53.

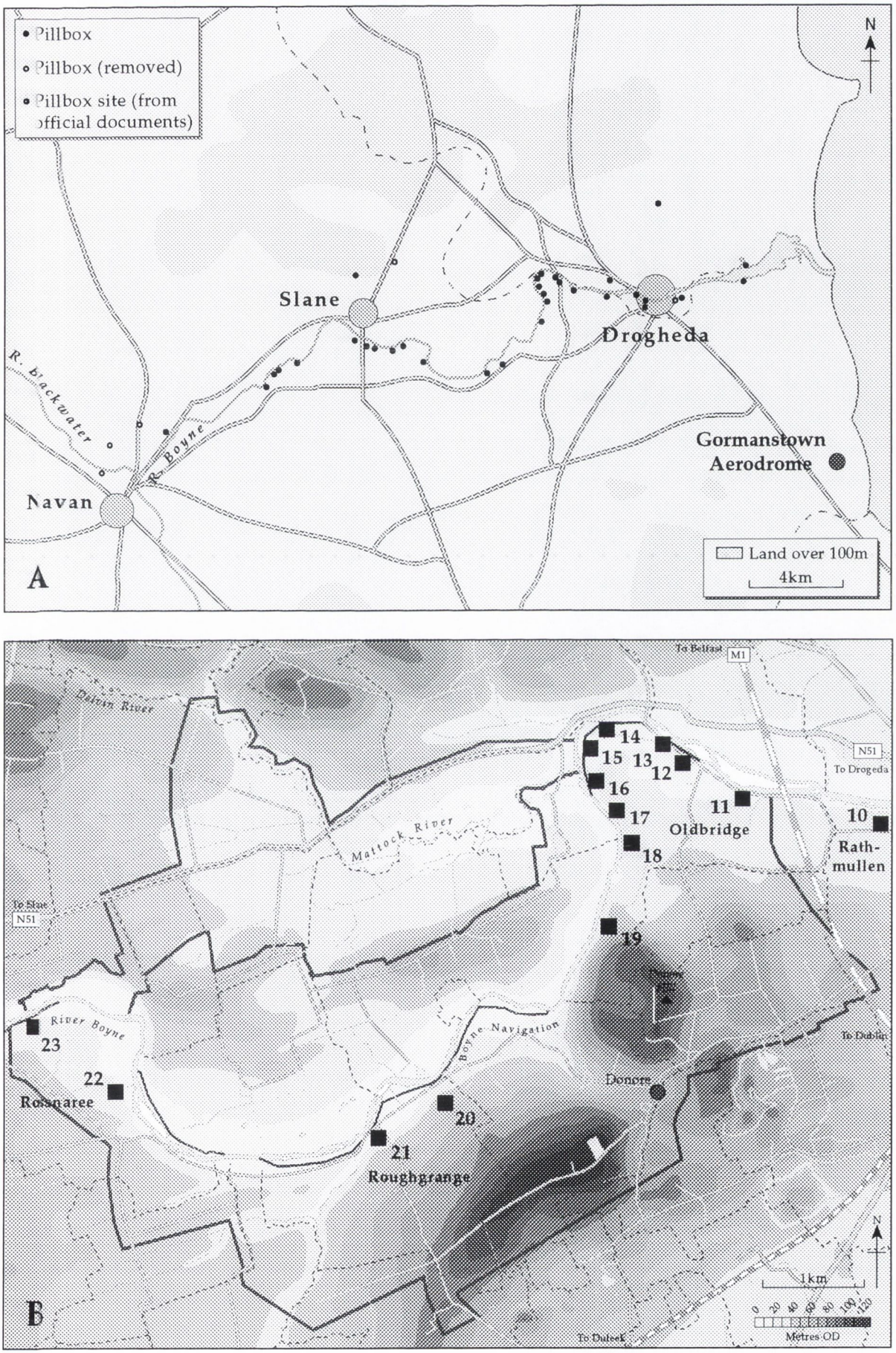


Fig. 9.3A Pillboxes on the rivers Boyne and Blackwater, the main line of resistance during the Emergency. Fig. 9.3B Pillboxes in the Boyne Valley Archaeological Park (numbering refers to pillbox plans, fig. 9.4).

Morphology The Boyne pillboxes are squat, generally flat-topped, single entrance structures and vary in plan from square to trapezoidal (fig. 9.4). The hexagonal plan which was so widely used in Great Britain is not present on the Boyne.[17] They are *circa* 4m in maximum width and length and are usually about 1.80m high. Wall thicknesses vary from 0.50m to 0.80m. In 1941 there was concern at the fragility of the walls and questions about their ability to withstand shell-fire. The Director of Engineers of the Irish Defence Forces suggested that in some cases it might be necessary to build shell-proof blockhouses which would have to have their wall thickness increased to 0.90m. He observed that anti-tank 'two-point guns' would cut through walls 1.35m thick and at that time most of the blockhouses had only 0.50m thick walls.[18] These dimensions indicate that the Boyne sites were not built to withstand shell-fire. In some cases the pillbox was further protected by a blast wall. An example of this type of detached wall is found at Oldbridge (9). Some pillboxes have a stepped entrance such as Mornington (2) and Rathmullen (10). Some, such as the site at Rossnaree (20), are partially sunken.

Pillboxes are invariably built of concrete. The concrete is distinctive by its relatively poor quality and the presence of pebbles and stones in the make-up. Traces of the planks used in the shuttering are apparent on the surface and in one case, sheets of corrugated iron were used for this purpose (the machine gun-pit in the canal at Fennor). The concrete shows signs of being reinforced with iron bars. Apparently bedsprings were universally used for this purpose in Great Britain, Slumberland being the chief supplier![19] Very few of the pillboxes have a concrete floor – Rossnaree is a rare exception. In some cases the roof has an uneven external surface where the remains of the concrete used in its construction was apparently dumped (Oldbridge 18). This uneven roof feature also occurs on East Anglian pillboxes built in 1940 and German examples from the First World War, where it was thought to be a conscious effort to camouflage the pillbox.[20] Some of the Boyne sites still have earthen mounds on the top suggesting that they were originally camouflaged and this is corroborated by guidelines given to the Local Defence Forces which required them to ensure that the walls were re-inforced by sod-covered banks of earth or stone.[21] Many have wide metal bands that extend from their exterior at upper embrasure level. These enigmatic bands may have

17. Willis, *Pillboxes*, p. 23.

18. Military Archive, Minutes of conference re engineering matters held at Plans and Operations Branch, 31/7/41, EDP2/8.

19. Willis, *Pillboxes*, pp 56-7.

20. *Ibid.*

21. Anon., 'Things umpires should look for' in *An Cosanthoir*, i (1941), pp 12-16, see p. 13.

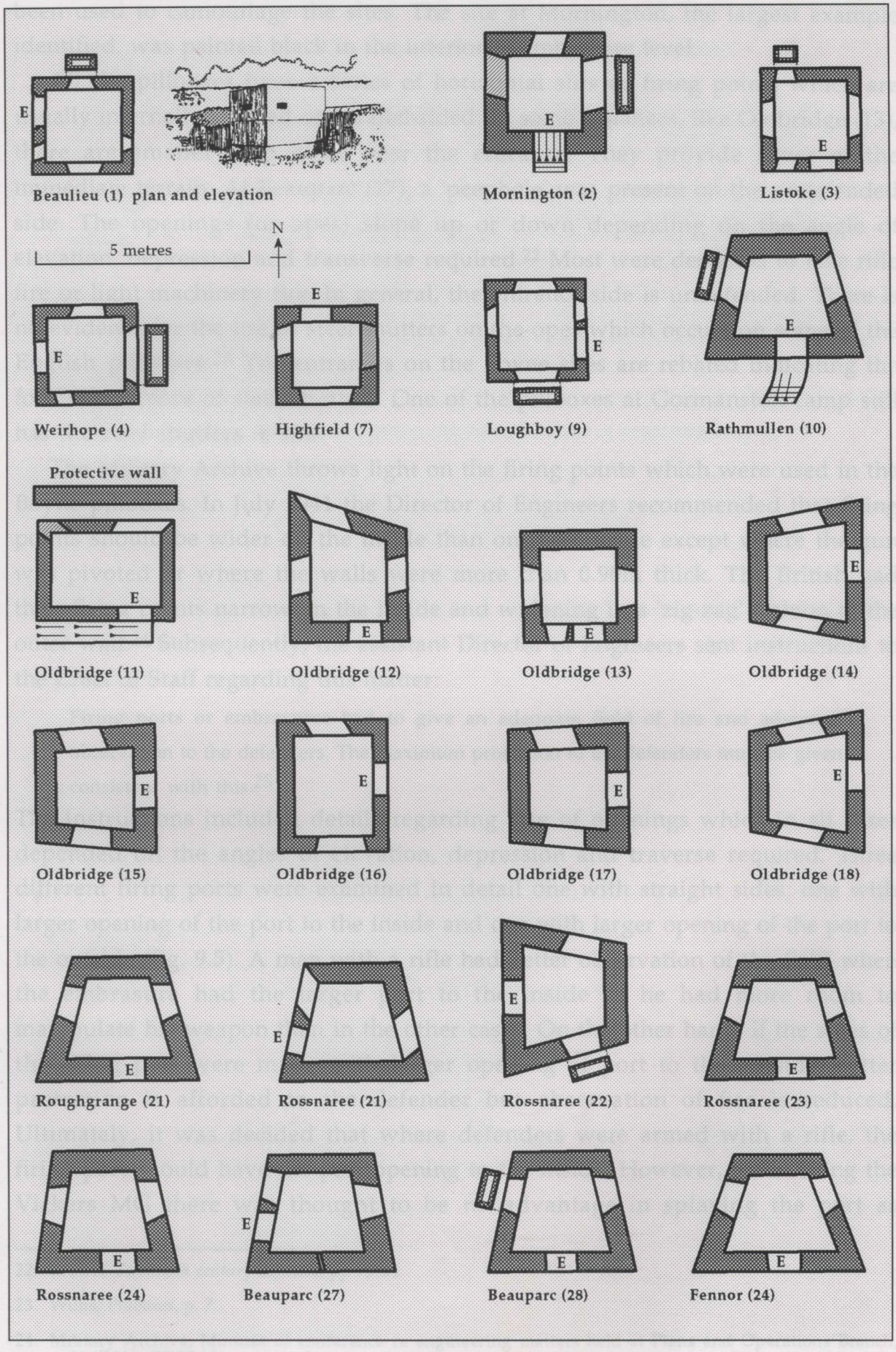


Fig. 9.4 Plans of pillboxes in the lower Boyne valley.

been used to camouflage the sites. The site at Mornington, the largest example identified, was painted black in the interior to embrasure level.

All the pillboxes have a series of horizontal slits or firing points which are usually internally splayed or parallel-sided. In some instances, like Oldbridge (13), there are smaller loop holes near the entrance. They provide cover of the immediate terrain. At Beauparc (27), a 'peephole' was present on the undefended side. The openings (or opes) slope up or down depending on the angle of elevation, depression and transverse required.[22] Most were designed to take rifle fire or light machinery fire. In general, the entrance side is undefended. There is no evidence for the use of steel shutters on the opes which occurs on some of the English pillboxes.[23] The entrances on the Boyne sites are rebated indicating the former existence of steel shutters. One of the pillboxes at Gormanston camp still has the steel shutters *in situ*.

The Military Archive throws light on the firing points which were used in the Boyne pillboxes. In July 1941 the Director of Engineers recommended that firing points should be wider on the inside than on the outside except where the gun was pivoted or where the walls were more than 0.90m thick. The British had their firing points narrow on the inside and widening in a 'zig-zag' fashion to the outer wall.[24] Subsequently, the assistant Director of Engineers sent instructions to the Chief of Staff regarding this matter:

> Firing ports or embrasures had to give an adequate field of fire and adequate observation to the defenders. The maximum protection to the defenders must be given consistent with this.[25]

The instructions included details regarding size of openings which in all cases depended on the angles of elevation, depression and traverse required. Three different firing ports were examined in detail one with straight sides; one with larger opening of the port to the inside and one with larger opening of the port to the outside (fig. 9.5). A man with a rifle had better observation of the field when the embrasure had the larger port to the inside as he had more room to manipulate his weapon than in the other cases. On the other hand, if the sides of the firing port were made with larger opening of port to the outside, better protection is afforded to the defender but observation of fire is reduced. Ultimately, it was decided that where defenders were armed with a rifle, the firing port should have the port opening to the inside. However, when using the Vickers MG there was thought to be no advantage in splaying the port as

22. Brown, *Twentieth century defences*, pp 79-84.

23. Willis, *Pillboxes*, p. 7.

24. Military Archive, Minutes of conference re engineering matters held at Plans and Operations Branch, 31/7/41, EDP2/8.

25. Military Archive, 1941, EDP8/4.

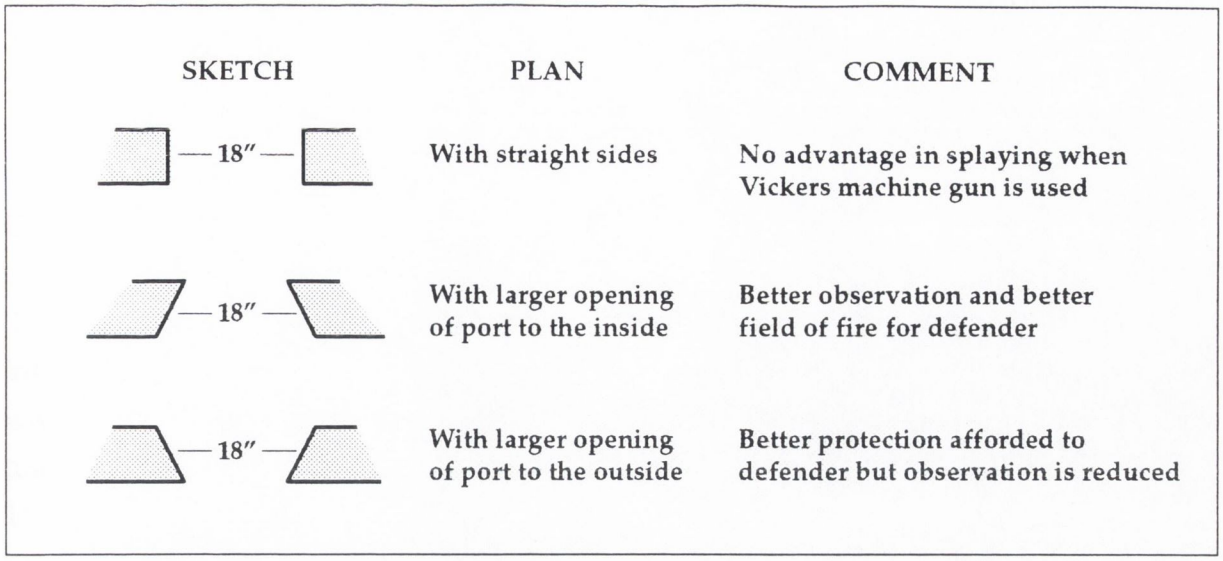


Fig. 9.5 Firing points after Major John Gleeson, Assistant Director of Engineers, 1941.

recommended for the rifle. In this case the gun rotates around an axis so a square port opening was advisable. The openings in the Boyne sites are generally splayed internally, indicating that they were defended by rifle only.

Construction It is difficult to obtain specific information on the pillbox building programme along the Boyne. Two of the sites, Roughgrange (21) and Mornington (2), have dates inscribed on their interiors; at Roughgrange '1942' was marked into the concrete at the time of construction and there are names in pencil on the walls of Mornington pillbox; 'N. Wall 1942' and 'Terry Skelly 1944'. This is the only precise dating evidence we have for the construction of the Boyne pillboxes. The procedure involved in the building of a pillbox saw the military authorities in Eastern Command issuing to district leaders an Operations Order which specified the situation of the blockhouses in the area and the tasks of the Local Defence Forces.[26] Construction Corps, involved with mines, roads and pillboxes for the Eastern Command, were based at Gormanston camp and they organised the construction of individual sites.[27] The Local Defence Force were then charged with the upkeep and protection of the blockhouses.

If an attack were pending or a training exercise was needed, a strong party within the local LDF was to be detached for the protection of the blockhouse. In advance of this, however, they were to prepare range cards for the different loopholes and armaments suitable for those ranges. They were to be acquainted with potential routes of approach likely to be used and measures necessary to protect these routes, with positions prepared outside the blockhouse to assist its protection.[28] In Great Britain, the Army Command set up teams to survey the countryside and recommend suitable defence lines. They had the authority to enter private land and compensation was paid for any diminution to the value of land. Local contractors were used and even encouraged to provide original designs.[29] No such independence was afforded to local interests in the Irish case.

Strategy and tactics The blockhouses on the Boyne were built as part of a larger defensive strategy. They were built along a strong defensive line formed by the Boyne but unevenly distributed at defensive strong points to form a defence in depth. Two or three were grouped close together in strategic places to provide mutual support. The potential of systematic mapping of these features is underlined in Great Britain where the national defence strategy has been

26. Anon., 'Umpires', pp 12-16.

27. D. O'Carroll, 'The emergency army' in *Irish Sword*, xix (1993-95),pp, 19-46, see p. 33; Military Archive, EDP1/6/CC 25, Blockhouse Correspondence.

28. Anon., 'Umpires', pp 12-3.

29. Willis, *Pillboxes*, p. 46.

reconstructed in detail on the basis of a systematic mapping of pillboxes. There it has been possible to identify main defence lines – similar to that along the Boyne – which followed the course of rivers and canals and employed these pre-existing features as ready-made, anti-tank obstacles defended by a line of pillboxes and manned by a Home Guard that was similar to the LDF.[30]

The tactical use of the pillbox relied on it being hidden from sight until the enemy was in effective range. That is why so many of them were camouflaged. The concrete was a protection against bullets, shell splinters and the weather.[31] They were, however, vulnerable to a direct hit from heavy shells, they had the disadvantage of limiting the field of fire, and their internal space limited the amount of guns and personnel that could be used.[32] One of the problems in creating a line of pillboxes such as that along the Boyne is their fixed orientation and the inflexible siege consciousness or 'Maginot Line Mentality' which such a line creates.[33]

9Ciii – Conclusions and conservation statement The Boyne pillboxes are artefacts of a world war. Their presence is made ironic when we consider that Ireland remained neutral during World War II. Nonetheless, the countryside contains artillery fortifications that replicate those found in actual battlefields all over Europe. They are a testimony to and a physical reminder of the significant role played by the Boyne valley in this period of Irish history. Because of the dearth of official information, these sites provide a local history of the Emergency. Each was carefully designed to deal with its particular locale and each precisely positioned to provide support and defend critical crossing points. The unevenness in their distribution indicates a greater need for defence in some areas as does the range in size and wall thickness. When comparisons are made with pillboxes in Great Britain and Europe it is clear that strategically they were intended to be used in a similar manner.

The Boyne sites are very well preserved: however, one was recently removed in Drogheda, largely through ignorance of its historical significance. Emergency era defences receive no form of legal protection in Ireland. This is in stark contrast to Great Britain where they are a scheduled archaeological monument. The Boyne sites need to be listed and developed as a cultural resource to present this period of Irish history to the public. The Boyne sites lie primarily on

30. Saunders, *Fortress Britain*, p. 219; Willis, *Pillboxes*.

31. *Ibid.*, p. 65.

32. *Ibid.*, pp 58,65.

33. Saunders, *Fortress Britain*, p. 214. The Maginot Line was a line of strongly protected underground forts encased in concrete built on the Franco-German border in the 1930s to defend France against Germany. The position of these forts depended upon an alliance with Belgium because the Franco-Belgian border was poorly defended. However, Belgium fell to the Germans who then attacked the Maginot Line from the rear.

a walking route, 'The Boyne Way', so some interpretative signage on that route could be used to introduce the public to these sites and give them a higher profile than they now enjoy, possibly developing a thematic 'War Walk'. Because of their proximity to the river, it is also possible that they could be used for bird watching, or possibly a form of bunk barn or low cost accommodation for people walking the Boyne Way. There are so many possibilities when we are dealing with the rich cultural resources of the Boyne.

9D Grant-aided landscape change 1950-1990

9Di – Introduction County Meath is widely perceived as a premier farming area with some of the best drained and most fertile soils in Ireland. The average farm size is 30% greater than the National Average.[34] The historical strength of agriculture in Meath has been well attested in the preceding chapters. Farmers in the county have always shown a willingness to adapt to market needs given their proximity to Dublin and European markets. In the last four decades there has been considerable re-structuring of the landscape of the lower Boyne with investment in both farms and farm buildings. Farmers in the valley are responding to the availability of financial incentives and demands from government for increased agricultural activity, with consequent profound environmental impacts. The setting for the Boyne monuments is being gradually transformed, as removal of field boundaries and construction of large farm buildings create a new agricultural landscape. These changes have largely emanated from farm development schemes operated by the Department of Agriculture through the provision of grant-aid. This case study illustrates the impact of centralised funding on the lowland area of county Meath, and simultaneously highlights the need to consider contemporary agricultural practices in an overall programme of landscape conservation within the proposed Boyne Valley Archaeological Park.[35]

Currently, farming comprises 97% of its land use.[36] The study area features a mixture of both large and small farms. Fifty-eight per cent of the holdings are below 20ha and 10% are over 60ha. Many of the smaller holdings (below 20ha) are derived from Land Commission sub-divisions which were given to migrant families from Mayo in the late 1930s and 1940s.[37] The size of these farms proved

34. Meath Leader II, *Meath's farming future; facing challenge*, (Kells, 1999).

35. A. O'Neill, National Archaeological Park: Boyne Valley (unpublished consultancy report, Dublin, 1989).

36. *Ibid.*, p. 5.

37. W. Nolan, 'New farms and fields: migration policies of state land agencies, 1891-1980' in W. Smyth and K. Whelan (ed.) *Common ground: essays on the historical geography of Ireland* (Cork, 1988), pp 296-319, see pp 309, 314.

inadequate and many are currently held in conacre, and used for dry stock. The larger farms practise intensive dairying, dry stock and tillage.

Landscape conservation of such an extensive fertile lowland area is unique in the Republic of Ireland where such conservation has traditionally been associated with upland and marginal areas.[38] Most National Parks are presently located in mountainous areas close to the western seaboard and, unlike the proposed Boyne Valley Archaeological Park, are based on natural landscape qualities rather than man-made heritage. By contrast, the Boyne Valley Archaeological Park is located in a fertile lowland area and is home to a rural community largely dependent on viable agriculture. Their farming practices critically determine the nature of the built environment and the general landscape appearance of the area. New housing, recreational and extractive developments have had minimal impact in the area. This can be quantified by examining the pattern of farm restructuring which had taken place in the last forty years within this part of the Boyne Valley, a restructuring greatly facilitated by the various Department of Agriculture farm development schemes.[39]

9Dii – Farm development Since 1950 there have been three principal farm development schemes available to farmers in the Boyne Valley (table 9.1). These were aimed directly at improving the structure of farms in order to increase agricultural production. The Land Rehabilitation Project was in operation after the Second World War and before Ireland's membership of the EEC.[40] Since EEC entry in 1973 the Farm Modernisation Scheme (1974-1985) and the Farm Improvement Scheme (1986-present) have been co-financed by the EU and the Irish Government.[41]

---

38. R. Alexander and S. Gahan, 'A review of sites protected for conservation in the Republic of Ireland' in *Ir. Geog.*, xx (1987), pp 82-8. In 1987 the National parks represented 71% of all protected land in the State.

39. Data sources: In the Department of Agriculture Annual Reports, response to their schemes is presented on a nationwide basis with a corresponding breakdown of figures by county. However, more specific information is held in regional offices. Records for the East Meath region are held by the Farm Development Service in Navan. The process involved in obtaining grant-aid for farm development is as follows. In general, the farmer initiates the proposal and an officer inspects the site to determine the land's suitability for agriculture and that the development will represent a reasonable increase in productivity. Specifications are then drawn up for the project and approved for a grant. For the period up to 1974 the documentation available is limited. A General Register and a Reclamation Register provide basic information on each application and whether or not the grant was successful. Both registers refer to separate files which contain detailed information on the development work and include a section of the relevant 6 inch or 25 inch OS map. There is also a working set of annotated 6 inch maps held in the Navan office which refer to the works undertaken. Information on the Farm Modernisation and the Farm Improvement Schemes are held on a card index which refers to individual files. These files contain details of the works with guidelines as to how they should be carried out. The cartographic record included under the latter schemes is more schematic than that with the Land Rehabilitation Project which causes difficulties when attempting to plot the precise location of various works.

40. Department of Agriculture, *Nineteenth annual report of the Minister of Agriculture 1949-50* (Dublin, 1950), pp 133-4.

41. Department of Agriculture and Fisheries, *Annual report of the Minister for Agriculture and Fisheries 1973-1974* (Dublin, 1974), pp 102-5; Department of Agriculture, *Annual Report of the Minister for Agriculture 1986 Ireland* (Dublin, 1987), p 79-80.

The Land Rehabilitation Project (1949-1974) operated in eight counties; Carlow, Kilkenny, Wicklow, Wexford, Louth, Monaghan, Sligo, and Leitrim and was extended to the remainder of the country (including Meath) in 1950.[42] It provided state grants towards the improvement of land on agricultural holdings, encompassing field drainage, fence removal, land reclamation and construction of watercourses. The stated objective of the project was the reclamation of 1.8 million hectares of un-productive land over ten years at a total estimated cost of forty million pounds, paid for by borrowings from America under the European Recovery Programme.[43] The grant represented two-thirds of the approved estimated cost of the work, subject to a maximum grant at the rate of £20 per statute acre. The works could be carried out by the applicant or arrangements could be made for the work to be carried out by the Department of Agriculture and the applicant would be required to pay 40% of the costs. The Land Reclamation Act (1949) authorised the Department to implement reclamation and other works on behalf of the occupier. Heavy machinery was used for the first time to undertake these works such as high powered crawler tractors with bulldozer equipment, drainage ploughs, excavators and calf dozers.

Within the Bend of the Boyne there was an immediate response to the Land Project Scheme in the year of its inception (1950), with six successful applications from the study area. Interest in the scheme remained steady with the exception of the period 1957-61. In all, there was a total of sixty-four applications for grant-aid under the scheme, representing 50% of grant-aided farm development in the Bend of the Boyne between 1950-90. A greater proportion of the smaller farmers in the area received grant-aid; 64% of take-up was from holdings below 20ha.

The development works consisted mainly of drainage improvement which involved re-conditioning of watercourses, culvert construction, demolition of banks and clearing ditches of vegetation. A combination of stone drains and mole drainage was advised. In seven of the cases examined, the removal of field fences was included in the work. The scheme also extended to the removal of an 'unproductive orchard' at Ballyboy cottage (1973) and woodlands at Balfeddock (1968) and Dowth (1973). In only one instance did the works involve interference with an archaeological monument. Field banks which transected a probable medieval enclosure with an associated field system at Knowth were removed and culverts constructed (1962). This is in low-lying land with flood problems.

The Farm Modernisation Scheme (1974-1985) was introduced in 1974 implementing EEC directive 159/72, which governs the payment of capital grants towards investment in agricultural development work on the farm.[44] It also

42. Department of Agriculture, *Nineteenth report*, pp 133-4.

43. *Ibid.*, p. 37.

44. Department of Agriculture and Fisheries, *Annual Report 1973-1974*, pp 102-7.

regulated the type and levels of investment which could be given to farmers. The stated objective of this development work was to yield an income increase per labour unit to the level earned by non-agricultural workers. Development works could include land improvement, construction of farm buildings, farm roads and fencing. Fifty percent capital grants or 9% subsidy for up to fifteen years were offered. The EEC directive 72/159 expired in September 1985 and the Farm Modernisation Scheme which implemented this directive ended.[45]

The introduction of the Farm Modernisation Scheme initiated a farm building boom in the Bend of the Boyne. Of fifty-six applications to the scheme from the area, at least forty were for building aid. In contrast to earlier schemes, there was a tendency for the larger land holders to apply for this grant-aid. Little drainage or reclamation was undertaken during this period. There were only eighteen applications to the Farm Development Service received from the area for this work. There was a noticeable tailing off of applications to the Farm Modernisation Scheme in the early 1980s, possibly as a result of modifications made to the scheme. From 1983, grants for farm buildings and fixed assets were suspended.[46]

During this period, farmyards were re-modelled and loose houses, silos and dungsteads were constructed (fig. 9.6). There was an emphasis on dairying related projects in the mid 1970s to mid 1980s, at a period when milk production from the Irish dairy herd was growing at an annual rate of 5%.[47] Loose-houses were converted to cubicle houses and frequently further converted to slatted houses under the Farm Improvement Scheme. This period also witnessed the grant-aiding of industrial scale production units. Pig fattening units catering for over three thousand pigs were built at Proudfootstown during 1976-77.

The Farm Improvement Scheme (1986-present) implements the investment aid provision of EC Council Regulation 797/85 on improving the efficiency of agricultural structures.[48] This aid is administered by the Farm Development Service. Under this scheme the farmer undertakes a Farm Improvement Plan for at least two and not more than six years which must increase the farmers income by 5% over that period. In the budget of March 1987 grant rates for buildings, fixed assets and land improvements were reduced by 10%. There has been a total of nine applications to the Farm Improvement Scheme from farmers in the Bend of the Boyne up to 1990, all for grant-aid towards farm buildings.

---

45. Department of Agriculture, *Annual Report of the Minister for Agriculture 1985 Ireland* (Dublin, 1986), p. 76.

46. D. Baldock, *Wetland drainage in Europe: the effects of agricultural policy in four EEC countries* (London, 1984), p. 81.

47. *Ibid.*, p. 81.

48. Department of Agriculture, *Annual report 1986*, p 79-80.

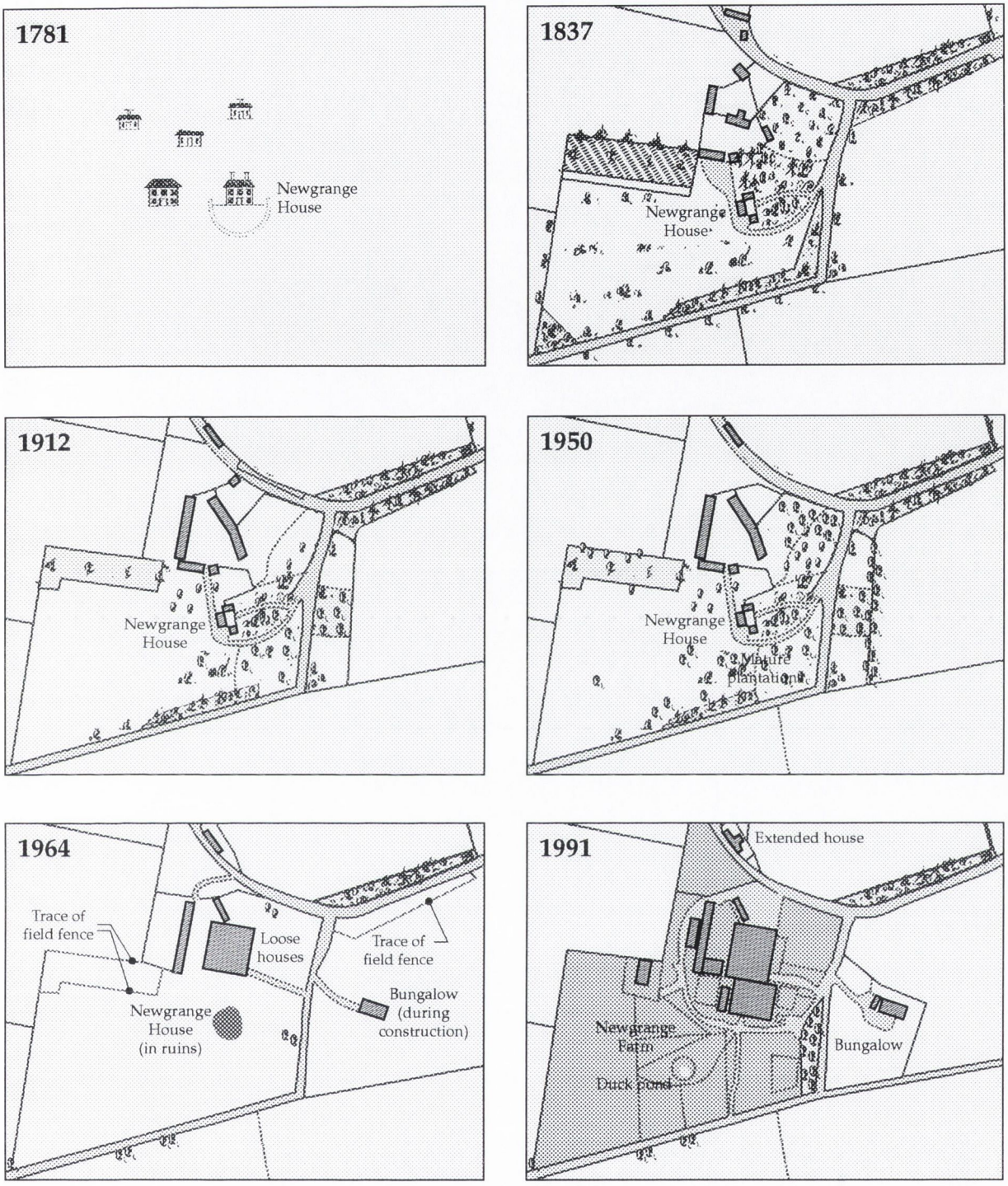


Fig. 9.6 Newgrange House and farm 1781-1991. This elegantly landscaped farm at Newgrange – with a triangular-shaped farmyard formed with fine stone out-buildings – has been modernised and the house destroyed. Loose houses, silos and yards have been built over the last three decades with the help of grant-aid (Ordnance Survey 1:10.560 first and third editions, Irish Army Air Corps *circa* 1950, Cambridge University Collection of Aerial Photographs: AJY 22 1964, Ordnance Survey Aerial Photograph 1991).

9Diii – Impact of farming schemes While public-funded farm development schemes have changed the face of the countryside in this part of the Boyne valley, there have been no special planning arrangements to take account of their environmental impact. Planning permission is not needed for field drainage as land improvement works are exempt from planning control. Reclamation presumably improved the economic viability of these holdings, but no attempt has been made to quantify this.[49] Agricultural structures were exempted developments until 1985 when some planning constraints were placed on them. Planning permission is now needed for agricultural structures which exceed 300m^2. There is also a new principle of aggregation placing an overall aggregation limit of 450m^2 for buildings within the same farmyard complex, after which planning permission is required.[50]

The construction of industrial-scale farm buildings, rather than hedgerow removal, has made the greatest visual impact. These conspicuous new farm buildings have a profound effect on the visual quality of the Bend of the Boyne area from the point of view of design, colour and materials used.[51] The use of galvanised tin, asbestos and cement sheets makes these buildings particularly conspicuous. There is no effort to screen them from view nor is there the ordered layout and composition associated with the traditional Irish farms.[52] The location of piggeries and poultry units so close to the much visited Passage Tombs is also undesirable. The new buildings appear as appendages to the old farmyard which is often left derelict. One can see also a gradual evolution of these buildings with the introduction of each new scheme.

Almost one-eighth (12%) of the land within the Bend of the Boyne has undergone grant-aided reclamation between 1950 and 1990 (fig. 9.7). This can be compared with an estimated figure of 25% to 30% of drained land in the county as a whole.[53] Less than 5% of the field boundaries in the Bend of the Boyne area have been removed in the years covered by these schemes (fig. 9.7). It is not possible to determine what proportion of this 7% was grant aided, but field fence removal is documented in many files. The presence of machinery in the area encouraged further clearance. This is, however, a much lower figure than an estimated 14% removal rate for County Meath which is based on a preliminary survey undertaken in the early 1980s and a national removal rate estimated at

49. Baldock, *Wetland drainage*, p 67.

50. Local Government (Planning and Development) Exempted Development and Amendment Regulations 1984.

51. P. Tuite, 'New farm buildings' in F. Aalen (ed.), *The future of the Irish rural landscape* (Dublin, 1985), pp 46-55.

52. P. Shaffrey and M. Shaffrey, *Irish countryside buildings: everyday architecture in the rural landscape* (Dublin, 1985), p. 2.

53. R. Bruton and F. Convery, *Land drainage policy in Ireland* (Dublin, 1982), p. 24.



Fig. 9.7 The impact of farm development schemes in the Boyne Valley Archeaological Park, 1950-1990.

16%.[54] This is probably due to the fact that the area has maintained a pastoral bias and the fields were originally relatively large.

Digging drains and ditches in order to lower the water table and removing hedgerows cause environmental damage and habitat loss with an associated decline in aesthetic quality.[55] Hedges are habitats for woodland flora and fauna; nearly two-thirds of Ireland's bird species nest in hedges.[56] The partial removal of townland boundaries is also an historical loss. For instance, a section of townland boundary at Glebe marked a sunken way into the medieval parish church at Dowth. The removal of boundaries has also resulted in fragmentation of a distinctive eighteenth-century demesne at Dowth where much of the woodland has been removed and the field banks which enclosed the 'race course fields' have been cleared. Overall though, while farming developments sometimes adversely altered the landscape context of archaeological monuments in the Boyne Valley Archaeological Park, they have had minimal impact on the monuments themselves.[57] An encouraging feature of the last decade has been a dramatic fall in reclamation-related funding.

Since 1992 there have been structural changes in the Agricultural industry and Common Agricultural Policy (CAP) with a move from market support and grant-aid for farm development to direct aid to farmers in the form of headage payments for livestock. The board of Meath Leader II (the EU initiative for rural development) examined the impact of these changes on farming in Meath.[58] The study concluded that the sector was in crisis with a great dependence on off-farm employment. Nonetheless, farmers still expressed a willingness to invest in infrastructural development. Of particular relevance to this study of the Boyne Valley Archaeological Park was their less than enthusiastic response to invest in alternative enterprises, particularly in the tourism sector. They also expressed a reluctance to participate in REPs under its current perameters.

9Div – Conclusion and conservation statement A programme of landscape conservation within the Boyne Valley Archaeological Park must consider the impact of contemporary and future agricultural practices. The grant-aid available in the last forty years has dictated the type of development taking place in the area and will continue to do so. Many of the smaller landholders in the valley

54. R. Webb, 'The status of hedgerow field margins in Ireland' in J. Park (ed.), *Environmental management in agriculture - European perspective* (London, 1988), pp 125-43, see p. 127.

55. *Ibid.*, p.130; D. Gillmor, 'Agricultural development' in R. Carter and A. Parker (ed.), *Ireland: a contemporary geographical perspective on a land and its people* (London, 1989), see p. 192-3.

56. *Ibid.*

57. Recent field fence removal in the townland of Littlegrange exposed a hitherto unknown souterrain and there have been many similar discoveries during reclamation works throughout the country.

58. Meath Leader II, *Meath's farming future.*

have undertaken little development since the days of the Land Rehabilitation Project. It is mainly the larger landowners who are applying for grant-aid to develop their farms. The long-term prediction for farming in county Meath is that the land base will concentrate into the hands the few.[59] This is mirrored nationwide with EC agricultural policy targeted at the 'developing' farmers.[60] The effects on the Boyne valley conservation zone will require systematic monitoring. Regulations will be needed to mitigate damage and at the same time permit legitimate and necessary farming practices.

There is an obvious difficulty in managing a heritage landscape so influenced by the Common Agricultural Policy. However, the EU has recognised that farmers have a pivotal role in safeguarding their environment and the countryside.[61] Despite a statistical survey in south county Meath which showed that only six per cent of farmers cited the law as a deterrent to monument removal,[62] it seems that the farming community are, in general, conscious of their responsibility.[63] In a 1991 'Reflections Paper' the European Commission have emphasised the need to keep farmers on the land in order to maintain traditional landscapes and, in their role as 'environment managers', they would be supported in the use of less intensive techniques of farming.[64] The recent scheme for the set-aside of agricultural land provides financial incentives to withdraw land from production.[65] This scheme could be used to protect sensitive areas such as the archaeological landscape in the Bend of the Boyne.

Clearly, the process of change in this farmed landscape needs to be carefully guided if deterioration is to be avoided and the area's visual quality maintained.[66] In undertaking a programme of landscape conservation within the Boyne Valley Archaeological Park, the conservation agencies must work closely with the farming community, the agricultural advisory service, and the local authority planning departments, in order to monitor the impact of these schemes.

---

59. *Ibid.*

60. J. Walsh, 'Uneven development in agriculture in Ireland' in *Geographical Viewpoint*, xiv (1986), pp 37-65, see pp 38, 48, 56.

61. J. Park (ed.), *Environmental management in agriculture: European perspectives* (London, 1988), p. xi.

62. M. O'Sullivan and L. Kennedy, 'The survival of archaeological monuments: trends and attributes' in *Ir. Geog.*, xxxi (1998), pp 88-99.

63. K. Reidy, 'Farmers attitudes to countryside protection' in *Farm and Food Research*, xx (1989), pp 13-4.

64. Commission of the European Communities, *The development and future of the CAP: reflections paper of the Commission* (Com 91/100 Fund, Brussels, 1991), pp 9-10.

65. Department of Agriculture and Food, *Annual Report of the Minister of Agriculture and Food 1988 Ireland* (Dublin, 1989).

66. F. Aalen, 'The rural landscape: change, conservation and planning' in F. Aalen (ed.), *The future of the Irish rural landscape* (Dublin, 1985), pp 1-25.

CHAPTER 10
THE BOYNE VALLEY ARCHAEOLOGICAL PARK: A CULTURAL LANDSCAPE

10A The Dynamic Landscape

Whilst the introductory chapter discussed the broad concept of cultural landscapes, subsequent chapters explored the multi-layered detail of one protected cultural landscape, period by period, from the Neolithic to the present day. To summarise the dynamic processes creating the current landscape, and to show how different outcomes evolved within the Bend of the Boyne, this section presents five micro-studies – Dowth, Monknewtown, Newgrange, Donore and Oldbridge. These provide a distillation of the evidence discussed thus far. The evolutionary patterns are illustrated by a sequence of diagnostic drawings. (10Ai-10Av). This is followed by a discussion of the key cultural processes which determined the nature of settlement in the Boyne (10B).

10Ai – Dowth Neolithic farming communities built communal passage tombs along the ridge above the Boyne, placing the largest of these tombs on the summit. These were built in cleared woodland and were surrounded by fields of corn and pasture. Following a period of consolidation and stability, Neolithic society adopted a simpler single burial tradition but continued to practice communal worship in large earthen enclosures (henges) erected within the sacred precincts of the passage tomb cemetery (fig. 10.1A). This pattern (ridge-top passage tomb communities transferring religious practice to nearby 'henge' monuments) is replicated at Knowth, Newgrange and Monknewtown. In the Middle Bronze Age/Iron Age Dowth lay on the periphery of ritual activity as the focus of activity continued at Newgrange, Knowth, Monknewtown and the south bank of the Boyne which began to be settled at this time. In the Early Christian period, however, a settlement grew up around Dowth mound, focused on a monastic site with a church and holy well associated with St Shengan. In the ninth century, this community attracted the attention of foreign raiding parties on the Boyne. The communities around Dowth built souterrains for their protection, making use of the original burial chambers. This monastic settlement became a parish and in the twelfth century remained independent from its Cistercian neighbours who held much of the lands outside the townlands of Dowth, Glebe and Proudfootstown (fig. 10.1B). The Early Christian period also witnessed the similar transformation of Knowth – not around an ecclesiastical centre, but rather as a royal centre for the kings of northern Brega.

In 1172 Dowth became part of the kingdom of Meath granted to the Anglo-Norman Hugh De Lacy who brought it under military control through the construction of earthwork castles and the fortification of earlier earthworks such as

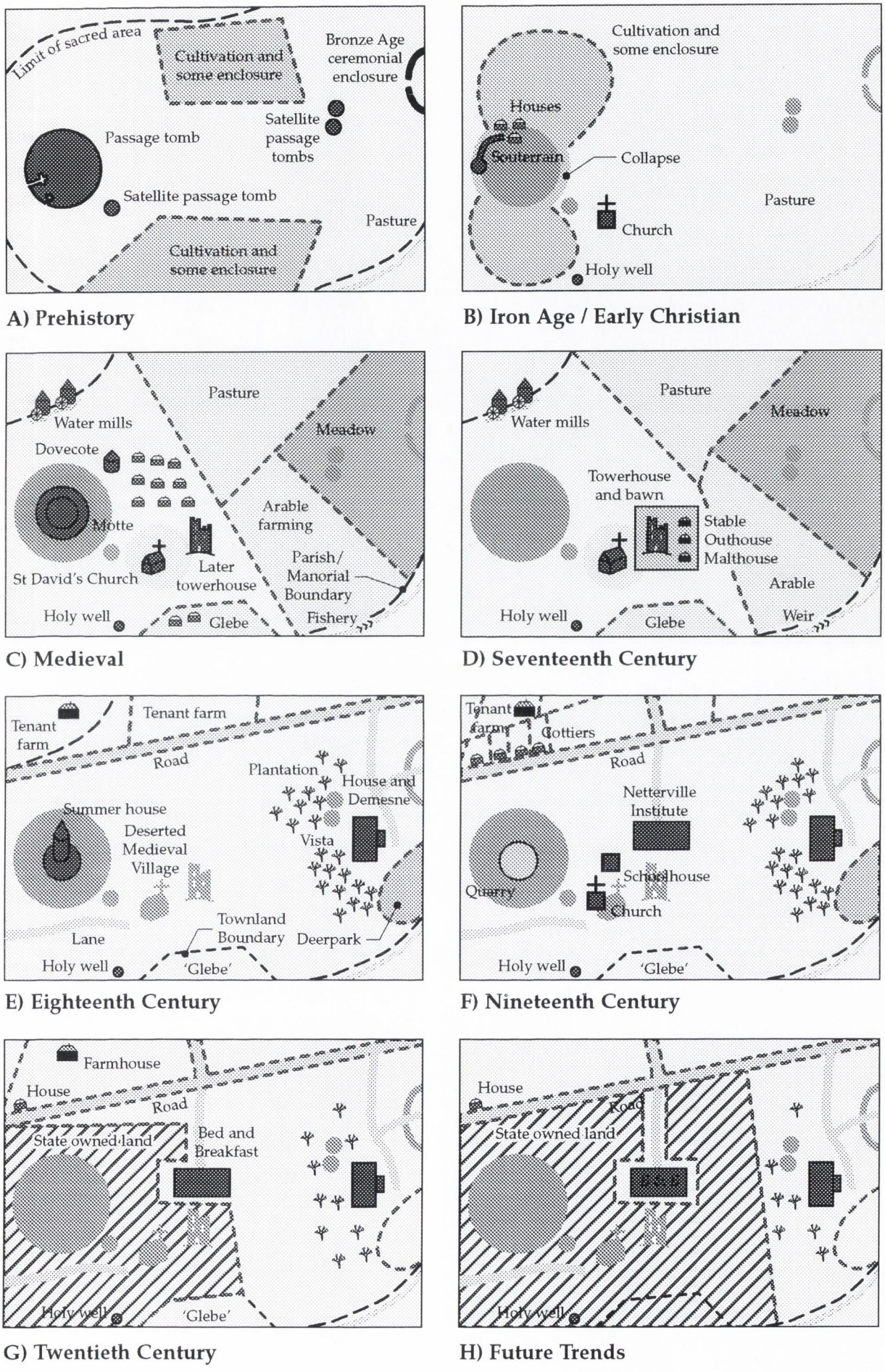


Fig. 10.1 A model of landscape development for Dowth.

Dowth and Knowth. Following successful consolidation, the church and part of the lands of Dowth parish were granted to the Augustinians. The church of St David's was established on the earlier monastic site in 1202 and its community lived close to the parish centre in cottages with yards on the glebeland. The medieval residents practised mixed farming. The remaining lands of the parish were granted to Fleming in Slane who subsequently granted them for part of a knights service to Ralph De Pichefcrd in 1226. A manorial village developed around the fortified mound and by 1253 there were nine tenants on the manor which contained demesne land, two mills, a dovecote and a fishery. By the fourteenth century Dowth manor was owned by the Netterville family who built a towerhouse on the site in the late fourteenth or early fifteenth century (fig. 10.1C). The Nettervilles remained at Dowth until the nineteenth century, demonstrating the tenacious hold by the 'Old English' Catholic aristocracy within the Pale on their estates. By 1654 a further stone house had been built at Dowth as had other ancillary buildings including a stable, outhouses and a malthouse (fig. 10.1D).

In the eighteenth century the Netterville family left the towerhouse and built a stylish mansion surrounded by parkland further east along the same ridge. This was separated physically from the medieval remains by a plantation and pleasure grounds that incorporated two of the prehistoric passage tombs and the henge. A summer-house was built on top of Dowth mound when it too was transformed into an ornamental landscape feature. A new road ran north of the passage tomb and the lands in its environs were enclosed for new tenants of the estate (fig. 10.1E). Similar changes in land management were taking place at this time in Newgrange and Oldbridge. The estate system precipitated the demise of surviving nucleations in the area. In the nineteenth century Dowth mound was robbed of its stone for use in local building. The Netterville Trust was founded and in 1877 the Netterville Charitable Almshouse was built with a schoolhouse and chapel alongside. The surrounding fields were further sub-divided and cottages sprouted along the roadside as the population in the area continued to grow (fig. 10.1F).

Today, cultural tourism needs have resulted in state acquisition of the land surrounding Dowth passage tomb just as it has also purchased other properties at Knowth and Newgrange. Netterville Almshouse is now functioning as a guest house (fig. 10.1G). In the future, Dowth will be opened to the public and the state will provide pathways to other sites in the townland. State ownership of land in the area is expected to increase (fig. 10.1H).

10Aii – Monknewtown A Neolithic farming community erected a passage tomb on the banks of Mattock Valley, albeit on the periphery of the main cemeteries on the north bank of the Boyne. Subsequently, this was replaced as a focus of communal worship by a large earthen enclosure or 'henge' (fig. 10.2A). An artificial pond south-

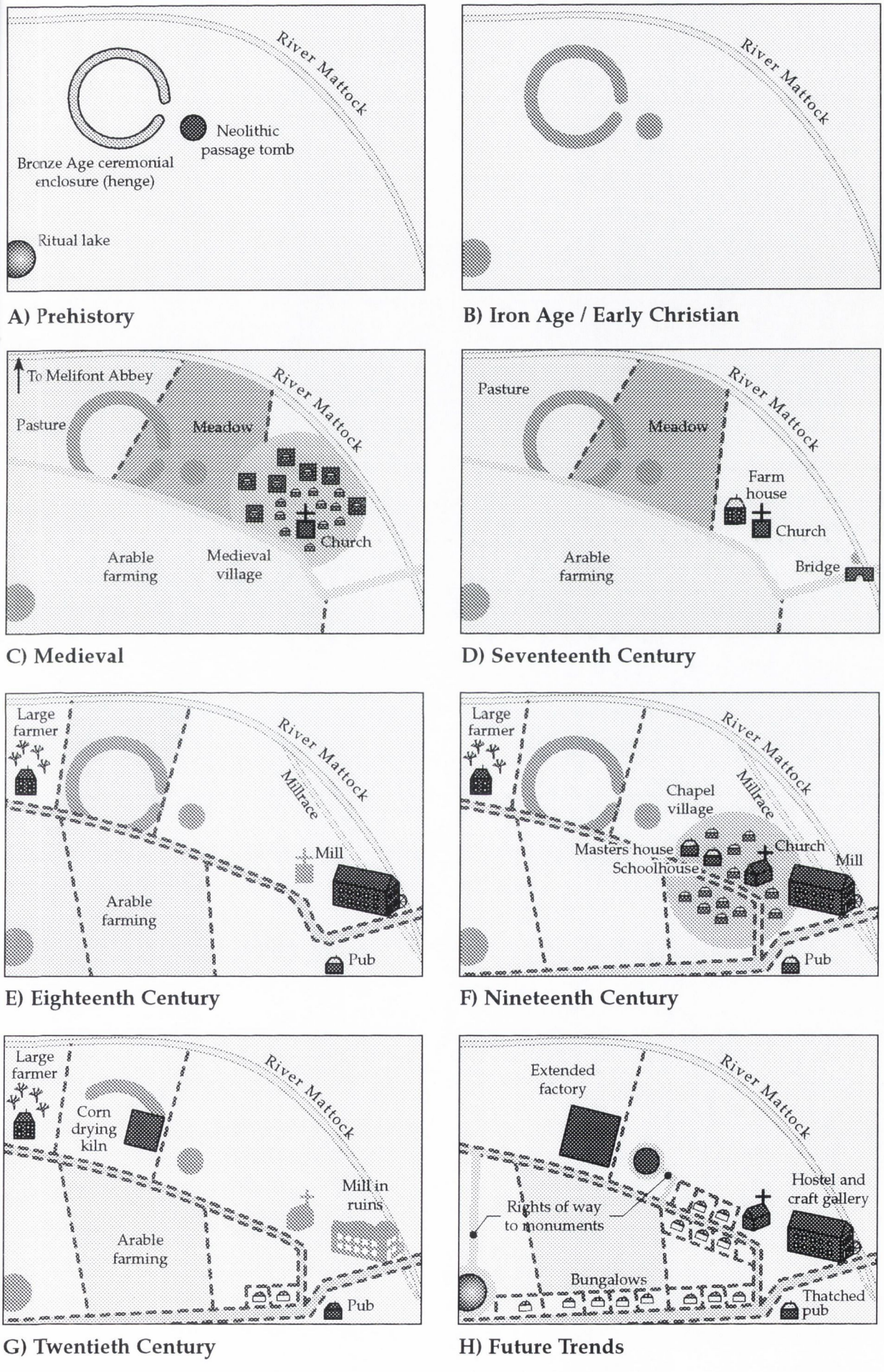


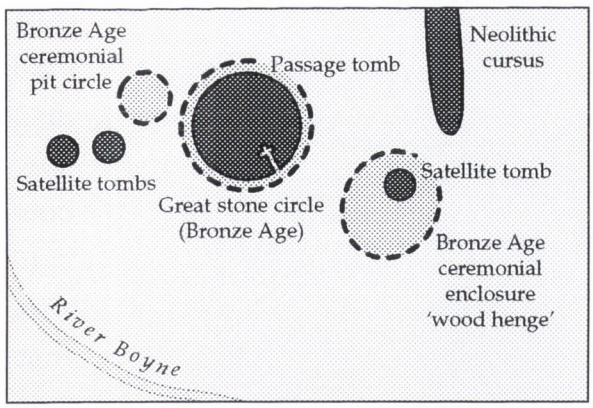
Fig. 10.2 A model of landscape development for Monknewtown.

west of the henge and passage tomb at Monknewtown may have been of ritual significance and used for votive offerings from the Late Bronze Age/Iron age. A well on the site was a focus for celebration at the pagan festival of Lughnasa (fig. 10.2B).

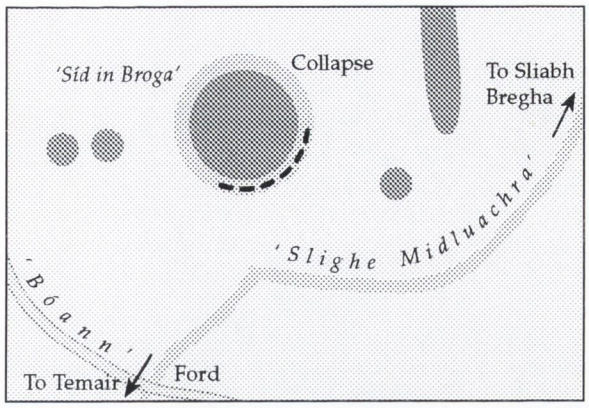
In 1329 the lands of Monknewtown were granted to the nearby Cistercian monastery of Mellifont. East of the prehistoric remains, a village – the 'Newtown of Monkland' – had grown around the monastic chapel, which would originally have served the lay monks working on the farm or grange at Monknewtown. This became the parish church for a largely secular community that by 1539 inhabited seven messuages and ten cottages in the village (fig. 10.2C). Cistercian possession inhibited the development of a 'manorial centre' comparable to that at Dowth. For the same reason, no towerhouse was built in Monknewtown. In the post-Dissolution period, the population was depleted and by 1654 there was only one farm house, a church and a stone bridge across the Mattock. However, Monknewtown was still identifiable when General Schomberg passed by it during the Battle of the Boyne (fig. 10.2D). In the eighteenth century, the lands were held by the Earl of Sheffield who leased them to tenants who in turn built fine houses and enclosed their fields with thorn and furze hedges. Stone was robbed from the passage tomb to re-surface the old lanes. In the later half of the eighteenth century, a large industrial mill using both steam and water was built at Monknewtown to process the corn grown in the surrounding fields. This resulted in a revival of the village's fortunes (fig. 10.2E).

In the pre-Famine period, the village and surrounding area experienced population growth brought about by the demand for labour in local tillage farming and the labour requirements of the mill. A settlement of labourers' cottages grew up at the junction of the Slane-Monknewtown road. A new church was built in 1837 and it became the focus for further institutional buildings; a schoolhouse and master's house. Structural stones removed from the passage tomb were re-used as gateposts (fig. 10.2F).

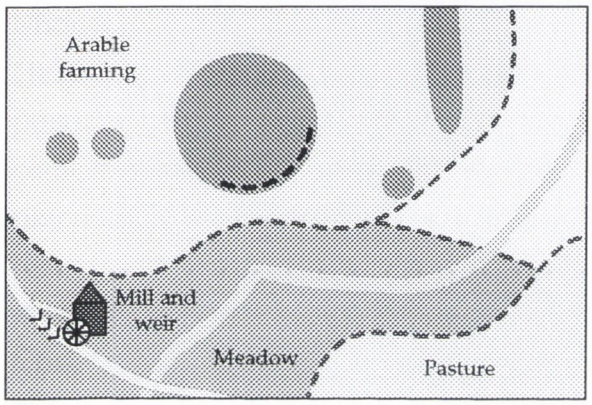
The population declined in the twentieth century and most of the nineteenth-century houses are now deserted and derelict; only the laneway survives. In the 1970s, an industrial corn-drying kiln was built on the site of the 'henge' which removed a large part of the monument. The mill is semi-derelict. The parish church remains unchanged and serves the population of the parish. The settlement at Rossin has largely disappeared and one of the larger vernacular houses is now a public house (fig. 10.2G). In the future, housing pressure will probably result in building development around the church at Monknewtown and tourism needs could see the mill being converted into a hostel and craft gallery. The state will provide public paths to the passage tomb and ritual pond but a further extension to the kiln is likely to remove the remaining part of the 'henge'.



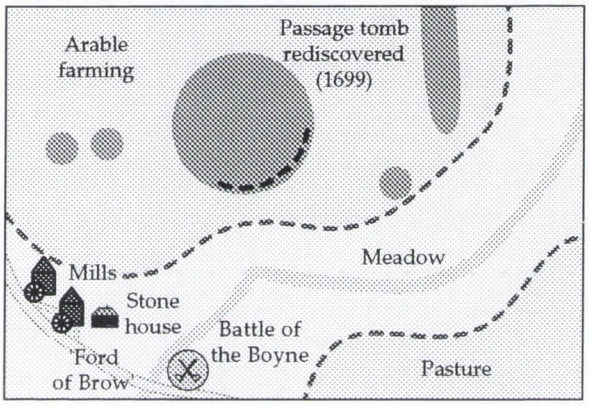
A) Prehistory



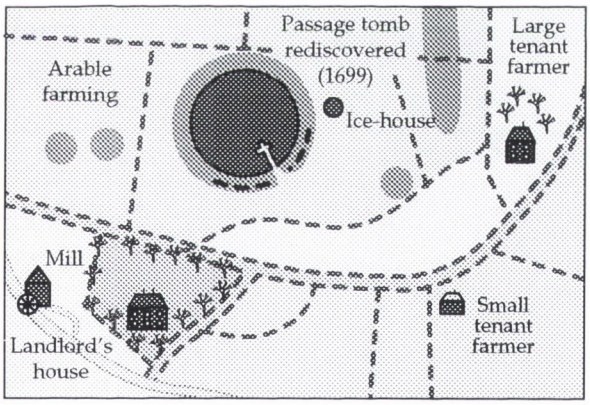
B) Iron Age / Early Christian



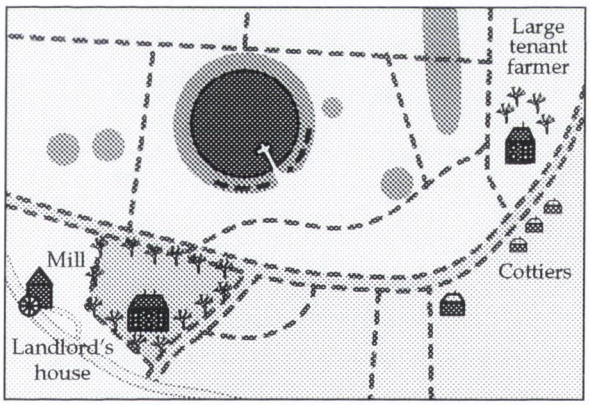
C) Medieval



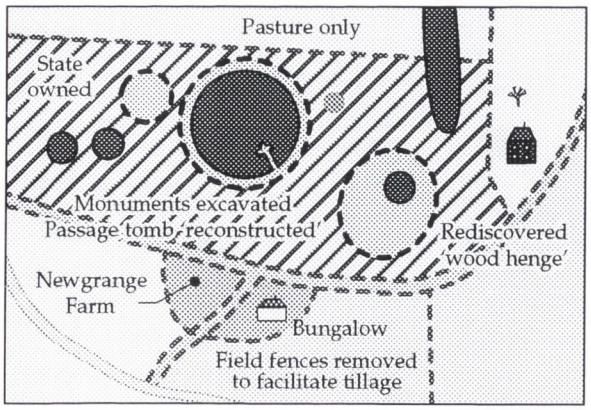
D) Seventeenth Century



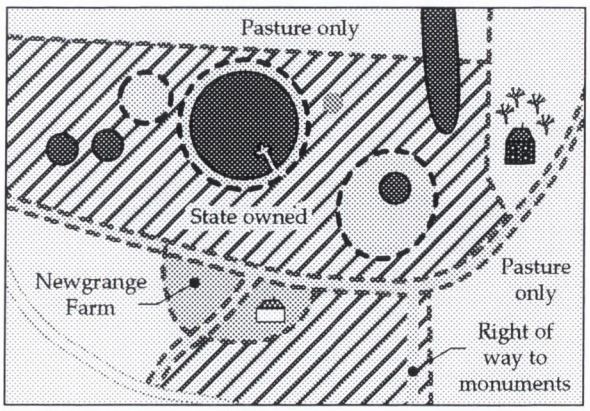
E) Eighteenth Century



F) Nineteenth Century



G) Twentieth Century



H) Future Trends

Fig. 10.3 A model of landscape development for Newgrange.

10Aiii – Newgrange Seven thousand years ago, the wooded ridge above the north bank of the Boyne at Newgrange was intermittently settled by groups of hunter-gatherers who lived off the fish, salmon and eels of the river and its limited range of woodland mammals. Between 3900-3500BC, farming communities cleared this woodland and lived in timber houses. A large passage tomb was built on the summit of the ridge. Subsequently the periphery of the tombs became a focus for intense outdoor ritual activity. A free-standing stone circle encircled the main tomb, a ceremonial avenue was constructed across the ridge, a large timber circle enclosed one of the smaller tombs to the south-east of Newgrange and a smaller circle was built to the west. A mixed farming economy was practised (fig. 10.3A). From the Middle Bronze age to the Iron Age there is no evidence for activity on the ridge (fig. 10.3B). Partly due to this lack of subsequent settlement, Newgrange retained a sacred position into the Iron Age and proto-historical sources portray its status as the royal cemetery of *Brug*. From the first to the fourth centuries AD, Newgrange became a place of pilgrimage for Romano-British and native populations. This was facilitated by its position on a major overland route that ran from Tara to Ulster. Unlike Knowth and Dowth, Newgrange was not the focus for domestic settlement in the Early Christian period. The *dindshenchas* does suggest some association between one of the mounds on the ridge – *Fert Patric* – with St Patrick (fig. 10.3B).

In 1348 the lands of Newgrange and the surrounding area became part of the farm lands of Mellifont Abbey. As a result, the smaller burial mounds on the upper slope of the ridge were badly damage by ploughing (fig. 10.3C). The lands continued to be tilled into the seventeenth century. In 1654 there was just one stone house in the townland and mills by the river. During the Battle of the Boyne, Williamite troops passed down the lane to cross by the ford (fig. 10.3D). From 1699 the lands of Newgrange were leased to Charles Campbell, who transformed them into a viable estate. By 1734 he had built a neo-classical mansion and outbuildings on landscaped grounds and enclosed the lands into tenant farms. An ice-house was built to the rear of the main mound. The roads were improved using the stones from Newgrange which resulted in the re-discovery of the entrance to Newgrange (fig. 10.3E). The fields were further sub-divided as a result of sub-letting and labourers working on the large tillage farms lived in cottages along the roadside (fig. 10.3F).

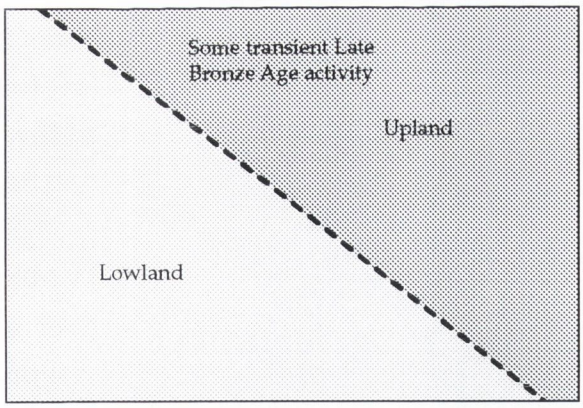
Today, Newgrange passage tomb is state owned, and has been 'restored' to become one of the most visited monuments in the country. The prehistoric timber circle has been revealed and partially re-constructed. Newgrange House has been demolished and a bungalow built nearby. The farmyard has been modernised with EU grant-aid and is now open to the public as 'Newgrange Farm'. Many of the field fences have been removed for more efficient, large-scale tillage farming (fig. 10.3G). In the future it is intended that most of the land will be bought by the state and

public paths are to be provided to allow access to the monuments. The land will no longer be tilled and will revert to permanent pasture (fig. 10.3H).

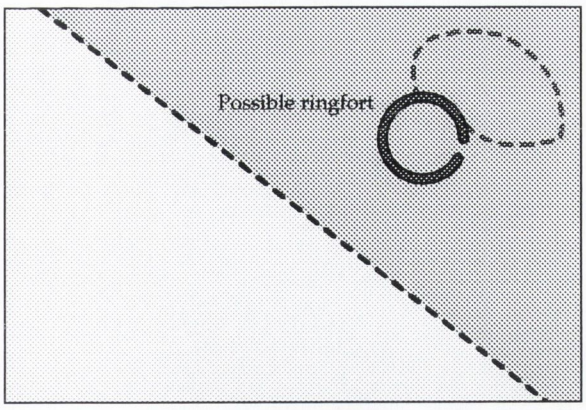
10Aiv – Donore village: old and new Despite its proximity to the passage tomb cemeteries and its separation from the Bend of the Boyne by a fordable river, settlement on the south side of the Boyne took a distinctly different course. This is partly explained by the rugged hill topography south of the river. The old village of Donore lies on one of the higher elevations (over 80m) within the Boyne Valley Archaeological Park. This hill lay on the periphery of some Mid to Late Bronze Age transient settlement (fig. 10.4A), but the early name for the place – *Dun Wabair* – suggests that its 'foundation' dates from the Early Christian period when a ringfort was probably built on the hill (fig. 10.4B). In 1203 King John granted the lands at *Dun Wabair* to the Cistercian monastery at Mellifont; like much of the lower Boyne valley, it became part of a large medieval estate. By 1539 there was a church on the site with two messuages and a cottage (fig. 10.4C). This pattern of urban growth around a monastic core was also seen at Monknewtown. In 1622 the church at Donore was in reasonable repair but it was damaged in the 1641 revolt. In 1654 there were three cottages and a farm house at Donore and in 1682 the church was repaired. Donore was the site of a major conflict in the battle of the Boyne in 1690 and Story's contemporary drawing shows that by this date the church, a turreted building, was in ruins. Another roofless building is depicted beside the church (fig. 10.4D).

A Catholic church was built at the bottom of the hill in 1727 on Lord Netterville's land at Cruicerath. This became a focus for new settlement and precipitated the further abandonment of the old village. A watch house was built in the old graveyard at Donore because it had become isolated from its parishioners who were now living down the hill in the new village of Donore (fig. 10.4E). By 1844 there were fifteen whitewashed cottages in the chapel village arranged on either side of the street opposite the village church and national schools. In the post-Famine period Donore underwent a building boom due to the intervention of the local landlord Sherman Crawford of nearby Staleen. The housing figures increased by a third between 1851 and 1870 (fig. 10.4F). However, by the turn of the century the population had fallen in Donore and much of the nineteenth-century housing stock had been removed. All but a few of the 'whitewashed cottages' that remained on the north side of the street were demolished. One was demolished in the 1990s to make room for an extension to Daly's public house, recently re-named 'Brú na Bóinne' (fig. 10.4G). This public house is enjoying new business brought into the area by the building of the 'Brú na Bóinne' visitor centre near Donore.

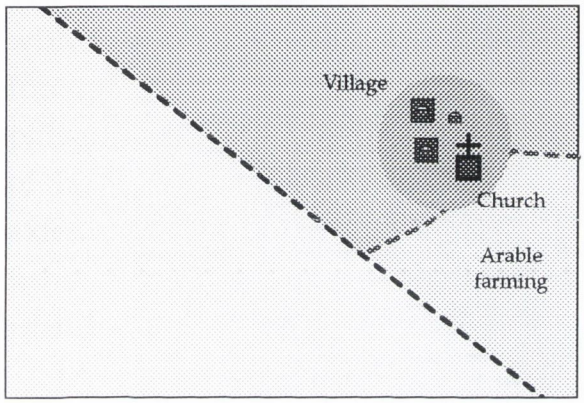
In the future, as part of the development of the Battle of the Boyne battlefield site, the medieval church at old Donore will become more accessible to the public. The pressure for housing will probably result in building around the present church at



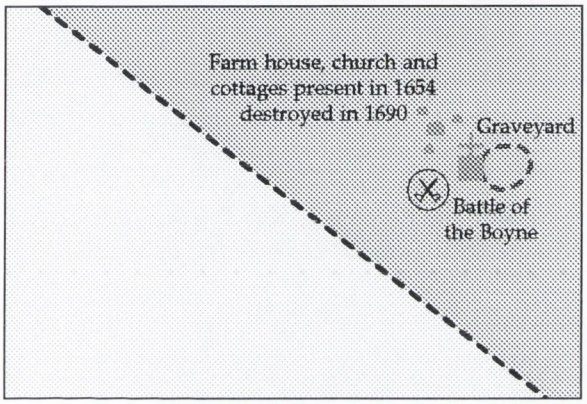
A) Prehistory



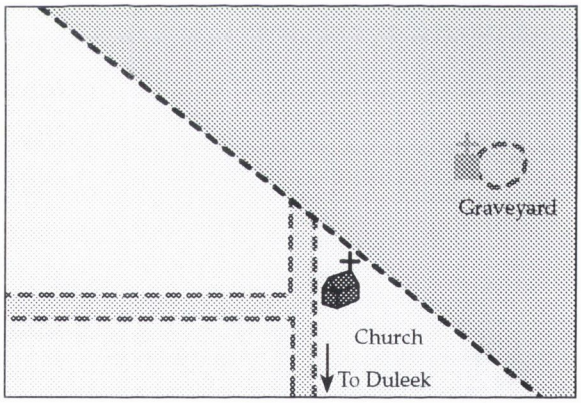
B) Iron Age / Early Christian



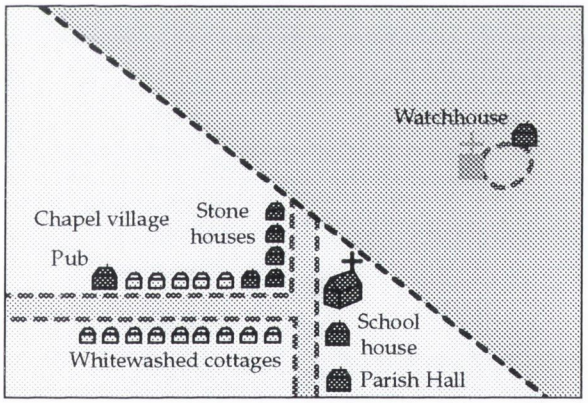
C) Medieval



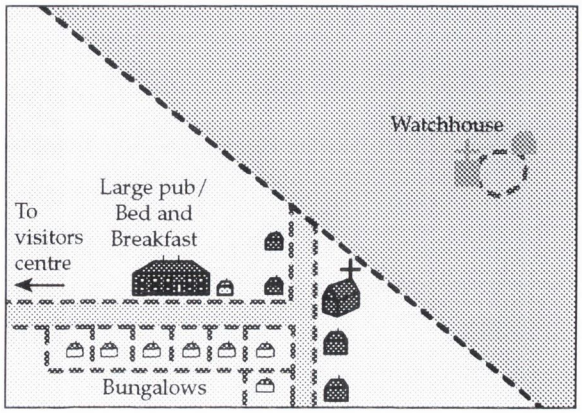
D) Seventeenth Century



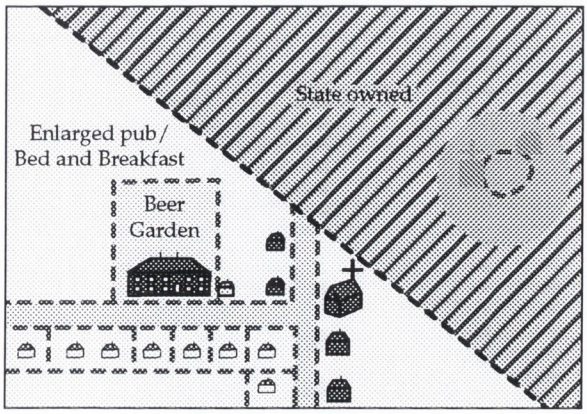
E) Eighteenth Century



F) Nineteenth Century



G) Twentieth Century



H) Future Trends

Fig. 10.4 A model of landscape development for Donore.

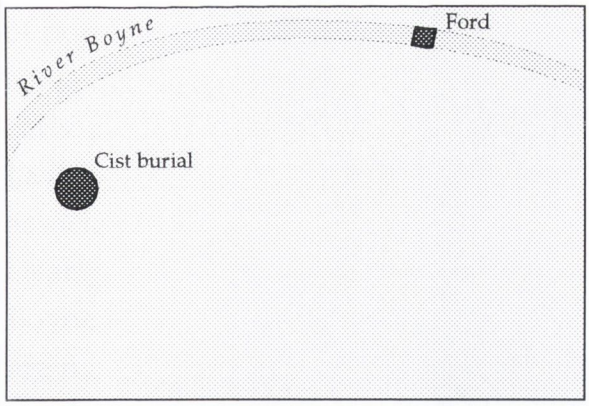
Donore. The last nineteenth-century cottage may be preserved and used as a base for a local cultural society (fig. 10.4H). Donore, a backwater throughout the millennia, will become not alone the area's only true village but also the hub of the tourist trade attracted to the monuments north of the river.

10Av – Oldbridge A small community settled on the south bank of the Boyne near a fording point in the Middle Bronze Age and buried their dead in stone cists covered by a round mound (fig. 10.5A). Some two thousand years later, a Christian family practising dairy farming built a ringfort and enclosed some land for pasture. The more progressive tillage farmers in the area dwelling in unenclosed settlements with timber houses built souterrains to protect themselves against attacks from foreigners which had been taking place in the valley. One of their homes was pillaged in 861AD (fig. 10.5B). The lands of Oldbridge became part of the farmlands of the Cistercian Abbey of Mellifont and were held by them until 1539. The land was extensively tilled which destroyed the surface remains of earlier settlements. A fishing village developed along the river's edge. Willows were taken from the river islands to build fishing vessels or coracles (fig. 10.5C).

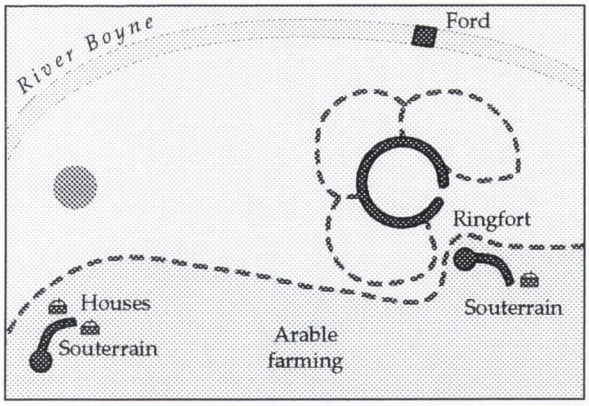
In the summer of 1690 Oldbridge found itself at the heart of the Battle of the Boyne. By this time the village had grown and lay amidst cornfields and meadows. The houses were located either side of a street and there was one house of stone with a courtyard and thatched cottages either side of it (fig. 10.5D). In the eighteenth century the Coddington family took over the lands of Oldbridge and built a mansion with landscaped parklands on the site of the earlier village. A new canal cut through the riverine section of the earlier settlement. In 1736 an obelisk was erected opposite the scene of the fiercest fighting in the Battle of the Boyne by the 'Protestants of Great Britain and Ireland' (fig. 10.5E). The Coddington estate continued to grow in the nineteenth century. The lands were enclosed and a terrace of labourers' cottages was built at Sheephouse (fig. 10.5F).

In 1923 a party from the Irish army garrison in Drogheda destroyed the obelisk at Oldbridge with landmines. This was intended as a gesture against Protestant attacks on Catholic ghettos in Northern Ireland. During the Emergency years the lands bordering the Boyne at Oldbridge were fortified with pillboxes, becoming part of a major defence line in preparation for a putative British invasion. As occurred elsewhere in Ireland, the Coddington estate declined in the post-war period (fig. 10.5G). There are well advanced plans to turn part of the estate into a country club with a golf course and provide residential facilities in the converted estate buildings (fig. 10.5H).

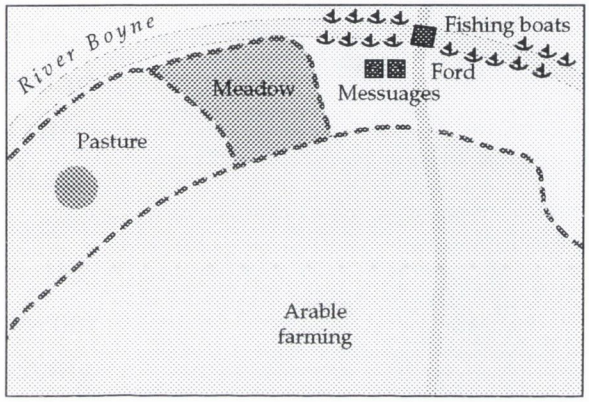
10Avi – Summary There can be no single model for settlement within the Boyne Valley because of the dynamic and unpredictable nature of Irish settlement. Centres



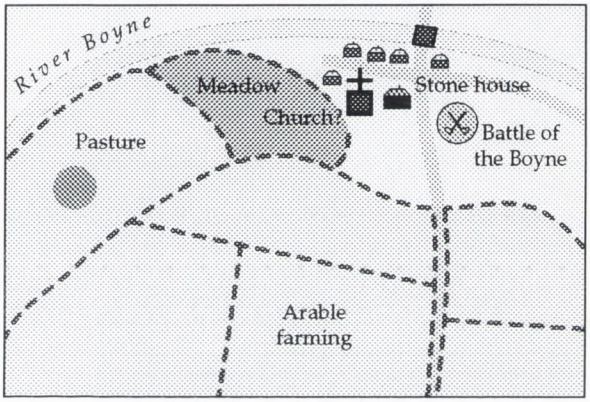
A) Prehistory



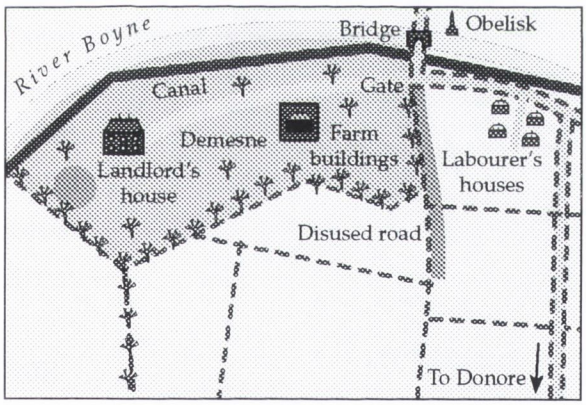
B) Iron Age / Early Christian



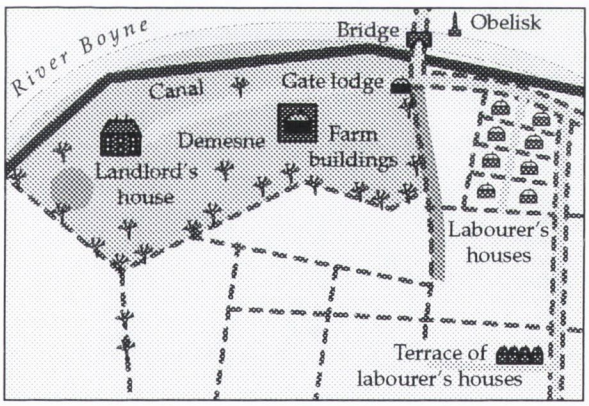
C) Medieval



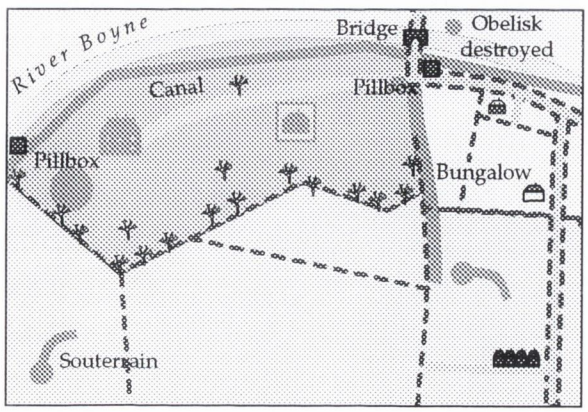
D) Seventeenth Century



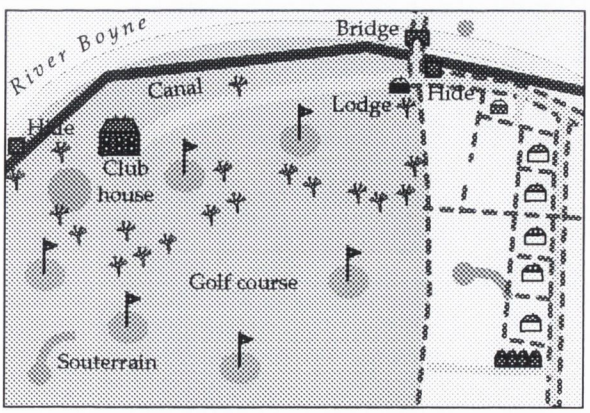
E) Eighteenth Century



F) Nineteenth Century



G) Twentieth Century



H) Future Trends

Fig. 10.5 A model of landscape development for Oldbridge.

of population in the Neolithic continued, for the most part, as important settlement cores; the virtual abandonment of Newgrange is an exception which shows how early prominence and continued natural advantages cannot override what seems to have been an awareness of the 'other worldliness' of a place; some surviving tradition associated with Newgrange meant that it remained uninhabited. The Middle Ages is clearly associated with the development of nucleated settlements throughout the Boyne valley but these can take a variety of forms depending on whether the lands are manorial or monastic possessions. This did not preclude nucleated development at a latter stage, however, and this is evidenced by the development of the village of Oldbridge at an important crossing point on the Boyne in the post-medieval period. The centrifugal force of the eighteenth-century estate system led to the demise of the foundering medieval 'villages' in the area. Subsequently, the rising power of the Catholic population led to the construction of churches and the resulting development of chapel villages at Monknewtown and Donore. This late development is responsible for the one true nucleation within the study area, at Donore.

Relatively subdued post-Famine population decline and the consolidation of land ownership into the hands of those who were formerly tenants ensured that landscape changes in the modern period were not so pronounced as elsewhere in Ireland. Certain patterns common elsewhere in Ireland are, nonetheless, evident; decline in vernacular housing, 'bungalowisation', enlargement of fields, intensification of farming, and the rising importance of tourism. The future for the landscape within the Bend of the Boyne could differ greatly from elsewhere in Ireland, especially if the Archaeological Park is fully developed and more of the area is brought into state ownership. This could see a widespread 'extensification' of agriculture which will cause the area to stand apart from the environmentally and locationally favoured areas elsewhere in eastern Ireland where modern farming methods will prevail.

10B The Cultural Landscape

Natural environment Aalen's model of cultural landscape (fig. 1.1), provides a useful structure within which to review the processes involved in the making of the cultural landscape in the Bend of the Boyne. In this model the 'natural environment' is the foundation and life source for the creation of a cultural landscape. Favoured environmental resources have combined to make the Bend of the Boyne attractive to a succession of immigrant groups and conducive to cultural development, although this is less true in the hills south of the Boyne. Success in agriculture has provided the economic basis for this development. This study has chronicled the continuous re-structuring of the land from the Neolithic to the transformation of post-Famine Ireland and most recently the era of EU grant-aided modernisation. The valley's soils have sustained and adjusted to changing patterns in farming and market forces, such as the shift from dairying in the Early Christian period to a tillage economy in the

medieval period which reached its peak with the massive demand for corn in the eighteenth century. The Boyne was always a significant source of food and avenue of communication but the full potential of its waters was realised by the Cistercians in the medieval period when they harnessed it for fisheries and milling. The Boyne supported a milling industry which reached its zenith in the eighteenth century. Fishing is still a prominent feature of the local economy. Local bedrock provided the raw materials for Neolithic passage tombs and Bronze Age burials, for much of the local buildings and roads in the area, and when commercially quarried in the nineteenth century was used to build many of the public buildings in the region. Today, one of the largest shale quarries in the country is at Donore and just east of the Boyne Valley Archaeological Park is the country's principal cement factory at Platin.

Location is a significant determinant in the cultural development of an area. The accessibility of the Bend of the Boyne and its position within the 'Eastern Triangle' were conducive to its cultural development. On a local level one can see these locational processes in operation at Newgrange for instance, which retained its sacred position into the Iron Age and became a place of pilgrimage for Romano-British and native visitors because of its favoured position at a critical fording point on a major overland route; again, this need to be accessible is seen in the movement of Donore village from a hilltop location to the lowlands. The strategic position of the Boyne as a control on northern approaches to Dublin and the need to defend it has also had landscape implications. This was apparent during the Anglo-Norman period, the 1641 rebellion, the Battle of the Boyne in 1690 and the Emergency during World War II. Oldbridge (on a north-south route that crosses the Boyne and by-passes Drogheda) has often been involved in these confrontations and contains artefacts of the successive confrontations in the form of grave markers, memorials and pillboxes. Despite acting as a buffer area for the capital, the Boyne valley has also benefited economically from its proximity to the capital. This is best illustrated in the eighteenth century when bounties on corn and flour carried by inland routes to Dublin helped to channel investment in flour milling into the Boyne valley and resulted in an economic boom that rejuvenated the village of Monknewtown.

Ideology Aalen's model of cultural landscape justifiably places ideology and the aesthetic sense among the key cultural components that interact with the natural environment to produce a cultural landscape. In the Boyne valley, one is confronted by the power of ideology in a prehistoric society and the impact this had and continues to have on the landscape. The passage tomb builders made a more profound impact on the Boyne than any other ideological group in the long history of the valley. They expressed their religious identity in the mortuary ritual, a clearly defined tomb architecture embellished with art, reaching a pinnacle at Knowth and

Newgrange where art (the aesthetic sense) and ideology become one. These tombs embody the natural resources of the environs, and their siting in the landscape was carefully chosen to maximise their prominence. The elevations in the land actually define the sacred boundaries of these cemeteries. This is best seen at Dowth where the limits of the cemetery are defined by the 40m contour. Taking a long view of ideological practice in these core areas of prehistoric ritual, one observes an overwhelming desire to locate later ritual/religious activity in their shadow. At Dowth and Monknewtown, this inertia continues into the present century. In both cases, the core area of prehistoric ritual became a parish centre in the Early Christian period, manorial or monastic centre in the medieval period and a chapel village in the eighteenth and nineteenth centuries. This locational pattern reflects an inherent tendency in society to gravitate to sacred centres. Newgrange is unique within the Bend of the Boyne because it retained its non-Christian/pagan identity and thus remained peripheral to religious activity in the historic period.

Technology The technological development of a culture determines its ability to exploit its environmental resources. Agricultural success in the Bend of the Boyne was due to south-facing slopes and fertile soils, but with agricultural developments came an accelerating intensity of land use and an increasingly structured landscape. Rural population and development reached its zenith in the nineteenth century, perhaps even exceeding the carrying capacity of local resources. The historical approach taken by this study allows a long term perspective on technological development, particularly in the area of farming and its associated industries and the resultant impact on rural landscape development. With the development of the plough from the early medieval period, agricultural production increased, which in turn encouraged population increase and the need to service growing demands at market and religious centres. This study chronicles developments in the processing of corn from the use of the saddle quern in the Neolithic, the rotary quern in the Iron age, to the industrial mill which could also run on steam in the eighteenth century. The development of a milling industry by the Cistercian monks in the medieval period influenced the siting of this industrial activity for many centuries after. Agricultural improvements in the eighteenth-century, with the introduction of new breeds of stock and seed and seasonal crop rotation, created economic vitality in the area which encouraged investment in infrastructure, such as fields, roads and the Boyne navigation. In modern times, mechanised farming has changed field patterns and the farmyard itself.

Conclusion Rural society within the Boyne has ordered itself in differing ways over seven millennia of settlement and this has had a direct bearing on landscape development. The communal enterprise of Neolithic farmers allowed extensive areas

of woodland to be cleared, a basic framework of enclosure established and major public monuments to be built. The extended family unit of Early Christian society is associated with a relatively dispersed settlement pattern resulting in a mosaic of enclosed areas. In the medieval period the centralised nature of the feudal system produced nucleated settlements focused around a parish or manorial centre. This nucleated settlement pattern started to break up in the post-dissolution period and a dispersed settlement pattern emerged in the seventeenth century which was consolidated within the estate system of the eighteenth and nineteenth centuries. The present trend in the Bend of the Boyne is towards state acquisition of land and larger farm holdings.

CHAPTER 11
MANAGEMENT POLICY FOR THIS CULTURAL LANDSCAPE

11A Management Structure and Boundary Issues

This landscape study has identified a number of issues relevant to the management of this protected cultural landscape and recommends a number of policy measures to ensure the identification, protection, preservation and presentation of the area's cultural heritage. The creation of the Boyne Valley Archaeological Park in 1989 placed the official management of the protected area in the hands of the National Monuments and Historic Properties Service (NMHPS) who work in collaboration with the Department of Archaeology at NUI Dublin, with responsibility at a regional level in the hands of Meath County Council. In reality this has meant that the area is managed on a daily basis by a single public administrator and support staff, based in NMHPS Dublin. Discussions with the project manager indicate that a more holistic approach to management of the protected area has been evolving which has involved consultations with agencies such as Waterways and the National Parks and Wildlife Service. However, there is little contact between NMHPS and other state bodies, such as those representing the farming community and fisheries.

The Boyne Valley in general is managed by a range of authorities and organisations, each responsible for a different aspect of the valley (fig. 1.6). These include local authorities, regional authorities and various bodies at national level. Many voluntary and community organisations contribute to the overall management of the valley, generally working alongside the various statutory bodies. The wider Boyne Catchment falls under the jurisdiction of Meath and Louth County Councils and within the Midlands-East Regional Authority whose function it is to co-ordinate the provision of public services at regional level.[1] The Office of Public Works (OPW) has responsibility for the design and execution of arterial drainage schemes and flood relief under the Arterial Drainage Act of 1945.

The developments which threaten the integrity of this protected landscape are multi-faceted, involving heritage, land use practices and socio-economic issues. This study identifies the need for a broader-based management structure for the area with a management team made up of representatives from all agencies who have a stake in the Boyne valley landscape, particularly the farming community, and co-ordinated by Dúchas, the Heritage Service, which represents three heritage divisions involved in the area (fig. 11.1). Ideally this management team would be represented at a local level by an appropriately staffed facility with responsibility for implementing policy on the ground and easily accessible to the community living within the protected area.

Although it was pointed out in chapter 1Gi that the study was not aimed at evaluating whether the designated area itself needed to be reviewed, some modifications of the present boundaries are recommended. It would be beneficial to include entire townland units in the park; the townland is an enduring territorial unit in the Irish countryside, valuable both in statistical terms and in local identity.

---

1. Brady, Shipman and Martin, *Boyne Valley Integrated Development Plan*, pp 9, 15.

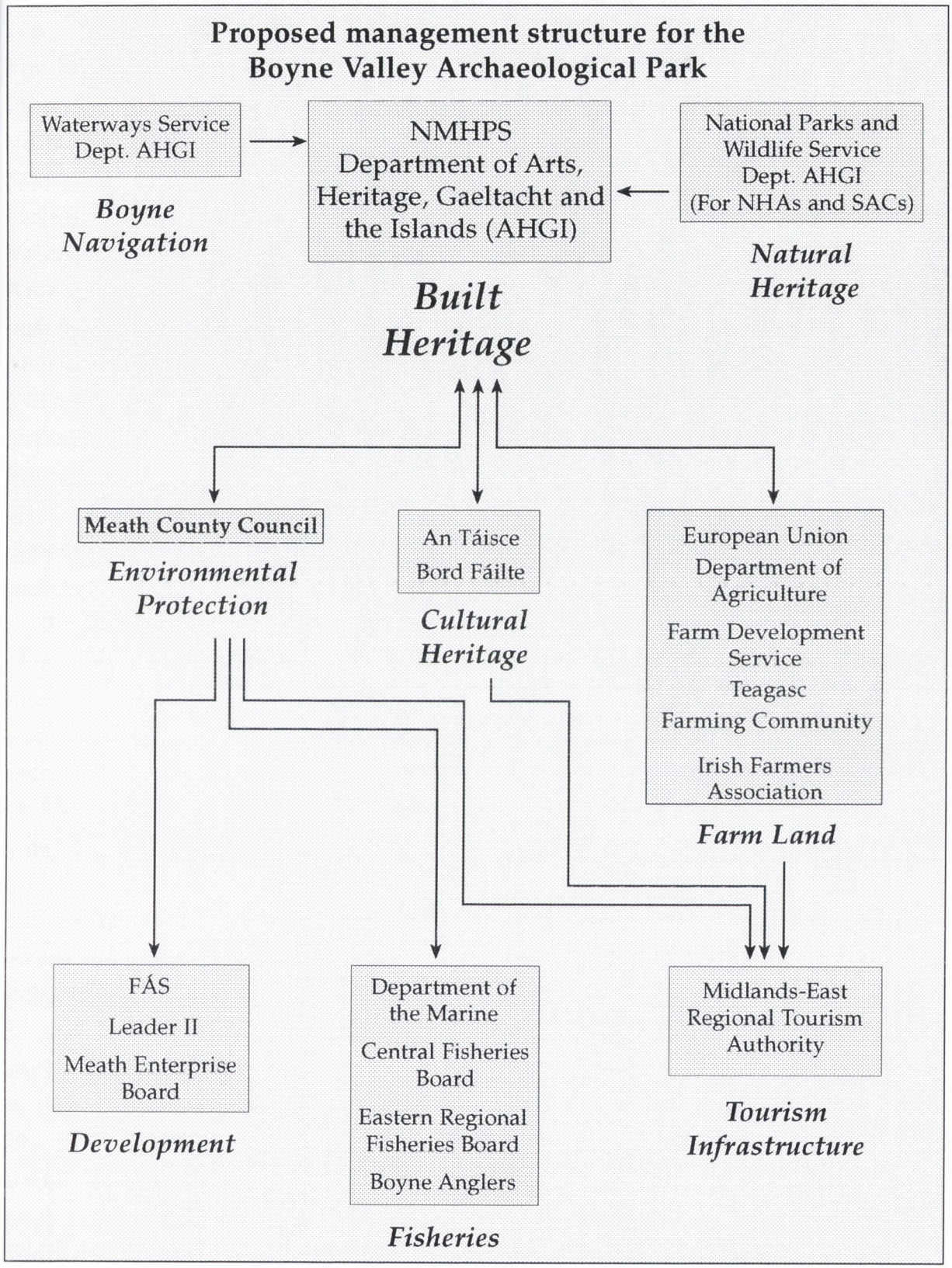


Fig. 11.1 Proposed management structure for the Boyne Valley Archaeological Park.

11B Legislation

The legislation covering the management of the protected area combines both Planning Acts (Local Government Planning and Development Act 1963 with subsequent amendments) and the National Monuments Acts. The Local Government Acts are aimed at preventing undesirable development in the defined area. The current Meath Development Plan attaches three orders of protection to the Boyne Valley Archaeological Park: it is an Area of High Natural Beauty; an Area of High Amenity; and an area of Special Archaeological Interest. These protection orders basically allow for a period of consultation in the monitoring of potential developments but do not automatically freeze development. Both the Donore and Oldbridge planning cases brought into question the role of the local planning authority in cultural conservation and have highlighted the precarious status of the Boyne Valley Archaeological Park. The power of these protection orders were tested with the Donore development and proved too weak to curtail industrial development in the area (6D). The significance of these Local Government Orders of protection need to be reviewed.

The National Monuments Acts provide a strong legislative base for the protection of archaeological monuments regardless of an area's status and are regarded internationally as enlightened. But for the acts to be effective they must be enforced and this is the crux of the problem in the Boyne Valley and throughout Ireland. The archaeological sites in the Boyne Valley Archaeological Park are listed in the Record of Monuments and Places. Some are further covered by Preservation Orders, Guardianship or Registration Orders. However, in the daily management of archaeology in the Protected Area the National Monuments Acts are not being enforced. Monuments legally protected by these Acts in the Boyne Valley Park and elsewhere are being regularly damaged by ploughing, dumping and high stocking rates. This is illegal, but to-date there has been no attempt to prosecute landowners or proprietors for offences in either the core or buffer zones of the Park. Sites which are legally protected with a Preservation Order have been very badly damaged, such as the embanked enclosure at Monknewtown which is used as an industrial dump. The National Monuments Act makes it unlawful 'to demolish or remove wholly or in part or to disfigure [or] deface' this monument. Yet no attempt has been made to prosecute the owners for this offence. Again, the 'henges' below Newgrange are annually ploughed. According to the National Monuments Acts, 'the owner should give notice of two months in advance of carrying out any work at or in relation to these sites' which are entered on the National Register; yet these sites are ploughed annually without the Ministers consent, thereby breaking the law. Fear of non-existent prosecution is not a reliable deterrent to monument damage. A statistical survey in the south of the county showed that only six per cent of farmers cited the

law as a deterrent to monument removal.[2] The managers of the Boyne Valley Archaeological Park should make a greater effort to enforce (or, at least, threaten to enforce) the National Monuments Acts.

This study has also noted a failure to reinforce the concept of the Boyne Valley Archaeological Park in more recent planning documents and in publications. The current *Record of Monuments and Places* for county Meath does not define the Boyne Valley Archaeological Park as one distinct protected area. Instead, it is labelled as Brú na Bóinne Archaeological Landscape and individual areas of archaeological constraint are shown on the accompanying constraint maps. This suggests an official rejection of the 'Archaeological Park' concept, an unfortunate and retrograde step which can only lead to confusion and weaken the legislative protection of the area.

11C Threats

Landuse practices, neglect and commercial pressures in the Bend of the Boyne threaten archaeological monuments, buildings and scenic quality. Quarrying poses a real threat to landscape quality, particularly in the southern buffer area. The shale ridge which creates such a dramatic setting for the passage tombs at Knowth, Dowth and Newgrange and continues south of the river is also a major target for quarrying. The strong pressure by commercial interests to develop these geological resources was highlighted in 1989 when permission was given to quarry part of Donore Hill (2F); three separate Local Authority orders of protection failed to ensure its integrity.

Tillage represents the most significant threat to the earthworks within the Boyne Valley Archaeological Park. Burial mounds, embanked enclosures and ringforts are repeatedly eroded by ploughing and the more fragile, sub-surface remains of habitations and ritual sites are being destroyed because the prescribed generous fallow area around the perimeter of passage tombs is not being respected (3Ci). Embanked enclosures or henge monuments have been particularly poorly treated; the sites below Newgrange are ploughed out and the remaining portion of the henge at Monknewtown is used as a dump (3F). Interiors of ringforts have also been cultivated and used as dumping grounds (4Dii). A programme of landscape conservation must consider the impact of contemporary agricultural practices and anticipate the impact of new schemes in the area.

This study bemoaned the semi-derelict condition of the eighteenth-century mansion at Oldbridge House and the threat posed to its associated parkland by current planning permissions (7Fi). The dangerous condition of many of the eighteenth-century mills in the area, especially Monknewtown, will eventually lead to their demolition if some financial incentive is not provided for their upkeep (7Fii). A staggering 58% of the nineteenth-century housing stock in the Bend of the Boyne

2. M. O'Sullivan and L. Kennedy, 'The survival of archaeological monuments: trends and attributes' in *Ir. Geog.*, xxxi (1998), pp 88-99.

has disappeared between 1854 and 1998, with the vernacular component most at risk. The integrity of the few vernacular houses that survive is threatened by lack of advice and guidelines given to potential restorers of such properties (8F).

This study stresses the need to harmonise new buildings with older traditional buildings and to identify characteristic features in local building styles which could be used as a model for new developments (8F). Many of the features of the small farmers' or cottiers' houses could be duplicated to produce a sympathetic design for modern housing in the valley. Traditionally, cottages in the Bend of the Boyne were usually set low and inconspicuously in the landscape. They are frequently aligned at right angles to the road (in contrast with modern bungalows) which immediately creates a safe space in front of the house. Traditional houses were built on the central-hearth, lobby-entrance plan characteristic of eastern Ireland and are very long in proportion to their width; this emphasises the horizontal. However, there is a vertical emphasis in detailing with windows that are long and narrow. Usually, a central porch is present with a slated, pitched roof. In the Bend of the Boyne, traditional houses were usually painted white or with an orange wash. 'Starter homes' could be built on this model (fig. 11.2A).

For larger housing developments, architects wishing to build in harmony with traditional styles should emulate the arrangement for eighteenth-century house clusters (fig. 11.2B). In the Bend of the Boyne these houses were built around the open space of a short cul-de-sac. Strong farmers' houses in the valley have vernacular roots and retain the traditional central-hearth, lobby-entrance plan. The slated porch is also a regular feature of these larger houses. Houses in this style either fronted the road (set back at some distance) or were built at right angles to it. These features could be replicated today in larger family homes (fig. 11.2C).

The State has not been 'without sin' in regard to new construction and restoration of monuments. The work completed at Newgrange in the 1970s is considered by many to have defaced this monument of international significance (3Cii). On a positive note, however, the reconstructions at Knowth have been carried out in a more restrained and considered manner. The Brú na Bóinne Visitors Centre is a beautiful building internally and externally and was designed to almost disappear into the landscape.

11D Protection and mitigation

The overriding principle of any management policy, particularly for a World Heritage property, should be the protection of valued features of the landscape. The management of the archaeological park needs to be comprehensively briefed by personnel with the requisite level of expertise to assess the cultural content of the protected area. First of all, it is essential to provide statutory protection to the maximum number of valued sites. This study has identified unprotected features

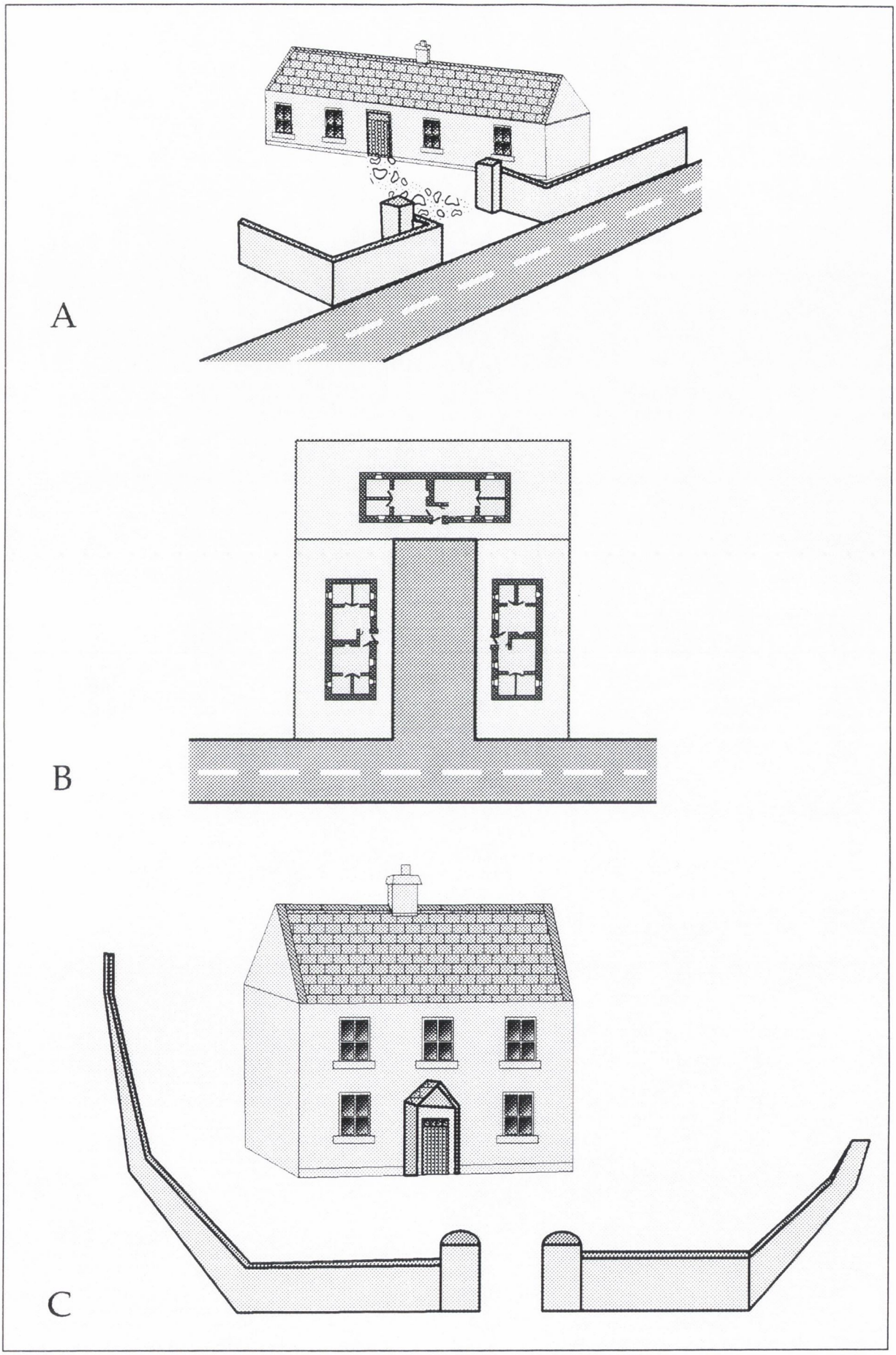


Fig. 11.2A Elevation of the proposed 'starter home'. Fig. 11.2B Plan of old, small-house cluster, a model for larger house developments today. Fig. 11.2C Elevation of a two-storey 'family home'.

such as holy wells and the need to enlarge the area of constraint around medieval churches which were a focus for nucleated settlement in the medieval and post-medieval period. The National Monuments Act allows for the designation of post 1700 AD sites and the Acts should therefore be used to monitor and protect later buildings and fortifications such as the pillboxes (9C) identified in this case study.

Each protected site should have a management plan. This need not be an extensive document but one that briefly considers the present condition of the site, identifies any threats and recommends any remedial work to consolidate it. The Project Manager of the Boyne Valley Archaeological Park reports that the archaeological monuments in the core area have been inspected and possible threats to their conservation recorded.[3] This approach should be extended to post 1700 sites and all sites within the buffer zones.

Farming practices are playing a major role in the destruction and defacement of archaeological sites in the Bend of the Boyne, in particular the earthworks. A primary objective of the management team should be to ensure that land containing Recorded Monuments in the Boyne Valley Archaeological Park, following consultation with landowners, must not be tilled but put into permanent pasture with low stocking rates. Much remedial work can be implemented on sites working in collaboration with farmers and their agricultural advisers; resoding damaged earthworks, separating stock from monuments, etc. But a prerequisite is to increase awareness of local heritage and in particular to forge a relationship between farmers and their local landscape. The larger, more intensive farmers in the protected area are precisely the ones least likely to join agri-environmental schemes such as REPS and Set-Aside, under which it is compulsory to protect archaeological sites. Further, a recent statistical survey in south county Meath (9Div) shows that large intensive farms are more likely to remove archaeological sites. Until this sector of the farming community becomes fully involved in agri-environmental schemes, the protection of archaeological landscapes will be dangerously incomplete.

11E Research

Prehistoric sites in the Boyne valley have been the main focus of archaeological research in the Bend of the Boyne (chapter 3). Excavation programmes have increased our understanding of prehistoric land use in the valley and the results have been published in numerous archaeological papers and books. This in-depth knowledge of the Neolithic now forms the basis of the presentation in the Brú na Bóinne Visitor Centre. It has justifiably been awarded the 'Interpret Ireland Award' and Interpret Ireland's 'Special Judges Award' for 1999.[4] However, later sites have

3. Eugene Keane, pers. comm.

4. D. Ó Ríordáin, 'Interpreting the interpretation' in *Arch. Ir.*, xiii (1999), pp 8-9.

been dealt with cursorily and only where they have infringed on the prehistoric sites under excavation. This study has identified serious knowledge gaps in the broader settlement history of the area. Moreover, archaeological investigation has been largely confined to intensive site excavation and traditional excavation methodology, despite a range of alternative archaeological techniques which have been developed elsewhere. The present study emphasises the potential of historical research as an underused tool for understanding the settlement history of the area, particularly in the early historic (chapter 4) and medieval periods (chapter 5). A wide programme of research is recommended which is focused on filling the knowledge gaps identified and is more problem orientated. The use of additional methods of archaeological research is proposed, with excavation and field survey supported by palynology, ploughsoil archaeology, remote sensing, underwater archaeology and aerial photography. A detailed examination of relevant early/proto historic sources is also recommended, initiated by scholars with a knowledge of Early Irish and structured in a similar way to the research programme undertaken for the Discovery Programme project at Tara.[5]

Among the main topics proposed for further research was the identification of hunter-gathering settlements. The presence of a sizeable Mesolithic community in the Bend of the Boyne is highly likely, given the area's natural resources, proximity to other Mesolithic coastal communities and promising results from a recent field walking project (chapter 3B). The prehistoric lithic material contained in ploughsoil may be the only remaining evidence for this early community. Therefore, systematic field walking of tilled land in the area is essential and projects should be planned in consultation with the farming community.

The study of Early Historic land use (chapter 4) highlighted four main avenues of research. It emphasised the need for a local pollen profile which would help to gauge the impact of a human presence on this environment, particularly during the later prehistoric and Early Historic period for which there is a dearth of obvious landscape evidence. Two areas suggested for sampling are at Crewbane and Dowth (4Bi); the fording point at Rossnaree and its immediate environs would be a suitable focus for a programme of underwater archaeology because of its position on a major crossing along a major north-south overland route known as the *Slighe Midluachra* (4Biii) and because there was probably a Norse encampment in its vicinity in the Early Christian period (4Cv). Monuments mentioned in the proto-historical sources should be identified through aerial photography and field walking (4Bv).

As this study moved into historically documented periods, the sources described many features which have not yet been identified on the ground. For instance, the historical sources indicate at least three different building phases of the church at

5. C. Newman and E. Bhreathnach, 'Tara project' in *Discovery Programme reports: 1, project results 1992* (Dublin, 1993), pp 69-103

Dowth (4Dii, 5Dii). A detailed architectural survey is needed to identify those building phases in the present late-medieval structure. Again, the study of medieval and post-medieval land use in the Bend of the Boyne highlighted the problems involved in locating domestic settlements (focused around churches) described in contemporary sources (5Ei, 6D). The immediate vicinity of medieval churches such as Donore and Monknewtown should be intensively surveyed using a programme of research that includes field survey, aerial photography, remote sensing, and ploughzone archaeology, followed by excavation. As upstanding evidence for medieval cultivation is scarce in Ireland; a programme of field survey is needed to identify the extent and likely date for cultivation ridges visible in the Bend of the Boyne (5Ei).

11F Education and Recreation

Chapter 1 (Diii-iv) discusses the important educational and recreational value of protected landscapes and their role in raising environmental awareness. Within the Boyne Valley Archaeological Park and its environs, the National Monuments and Historic Properties Service (NMHPS) provide much of the archaeological heritage interpretation This is available in the Brú na Bóinne Visitor Centre, the Mellifont Visitor Centre and through the guide service at Knowth, Newgrange and Mellifont. Information is also presented in a range of pamphlets and brochures produced by the NMHPS. This study has examined critically the present facilities and recommends more innovative use of the present NMHPS facilities, the development of thematic walks in the area and provision of resources to owners of heritage properties in the park area so they can present their properties in a professional manner. It also recommends support for local community organisers of events and festivals which raise awareness of the history and traditions of the area. An Education Centre such as that in Wicklow National Park at Glendalough is needed. The farmhouse at Knowth, now in state ownership, would be an ideal venue for this centre.

The exhibition in the Brú na Bóinne is comprehensive in its interpretation of the Neolithic remains of the area (chapter 3) but it fails to provide interpretative material on the broader landscape history. Neither does the fixed, traditional nature of the present exhibition allow for revision and expansion based on further research. Additional exhibition space could develop themes such as the 'Making of the Bend of the Boyne' (Chapter 2), 'St Patrick and the Boyne (chapter 3), 'the White Monks and the Bend of the Boyne (chapter 4), 'Seven Millennia of Farming in the Bend of the Boyne' (chapter 10B) which should appeal to the local, mainly farming community, or, finally, 'the Military History of the Lower Boyne Valley' (chapters 4, 5, 9). The exhibition space at Mellifont Visitors Centre deals exclusively with the art and architecture of Mellifont Abbey buildings. Within the centre there is a need for

additional interpretative material on the economy of the Cistercians who built this abbey and who farmed vast estates along the Boyne Valley (chapter 4).

The guides service is very successful and a valuable public service. One gets the distinct impression, however, that there is a certain flexibility in the way the presentations are individually approached. In some cases the factual content is lost in the interests of being both novel and entertaining. Guides needs to provide up to date, comprehensive interpretations. They should be well trained and briefed by archaeologists, historians and historical geographers involved in local research. The illustrative panels provided to assist the guides, such as those at Knowth, should be reviewed and updated to coincide with revised interpretations (chapter 5Ei).

The NMHPS produces a range of brochures that are attractive and well designed but in some cases incorporate historical inaccuracies; the most blatant is their general assumption that the historic area of Brú na Bóinne corresponds geographically with the Bend of the Boyne. On the basis of historical research, this study argues that the topographical description *Brúg*, in fact, refers to a limited area in the immediate environs of Newgrange and that it was probably the earlier name for the townland of Newgrange before this townland came into the ownership of the Cistercian monks (chapter 4Bv). Therefore, the term is used inappropriately in the current publications. In order to develop the great potential of the area, brochures on a wider range of subjects should be produced.

This study sees the potential of combining heritage discovery with recreation through the development of walking routes, particularly with the recent availability of OS Sheet 43, Discovery Series Map. The forthcoming restoration of the canal will enhance the existing heritage value of the Boyne and provide alternative means of accessing its cultural heritage (7Fiii). This study has identified the 'Boyne Way' (the towpath for the Boyne Navigation) as an ideally situated and non-invasive way of channelling the public though the area. The fact that it goes by the Visitor Centre is an additional merit. This study has identified a number of cultural features in the Bend of the Boyne readily accessible from this designated walk including the Natural Heritage Areas (chapter 2F) and Emergency fortifications on which a 'War Walk' could be developed. The fortifications could also be used by walkers for bird watching or shelter (chapter 10A). Further thematic walks could be developed using the present lane system. An old laneway connects Mellifont Abbey with her medieval church and grange at Monknewtown. This could be developed as a 'Monk's Trail' starting from Mellifont Abbey. A network of lanes connect Dowth with Rossin and pass the sites of nineteenth-century settlements and mills, on which a 'Famine Trail' could be based (chapter 8). The area has a number of fossil-rich quarries, disused quarries and gravel pits which represent a useful resource for teaching geology and geomorphology (chapter 2).

The local community needs assistance in presenting their heritage properties in a professional manner to the public. For instance, Dowth manor, the only Anglo-Norman manorial village in the area, needs to be interpreted for the public (chapter 5Eii). The West Ferrard Rural Development Group (with the support of Leader and FÁS) has been involved in the restoration of a nature trail at Townleyhall and interpretation of the Battle of the Boyne site. The latter development has had a narrow geographical focus on the main area of conflict in the Battle at Oldbridge. A much broader view of the Battlefield site is needed, similar to that taken at the Battle of the Bighorn National Battlefield site. The study has identified a large number of landmarks associated with the battle which could be incorporated into walking and auto routes (6D). A number of festivals and events held annually in the area heighten an awareness of the history and folk traditions of the area, such as the salmon of knowledge competition (a fishing festival) and the 'Celtic' festival at Rossnaree which re-enacts the battle of Rossnaree (4Bv). These should be encouraged and, if possible, steered towards greater archaeological and historical accuracy.

11G Socio-economic issues

Sustainable heritage management – that is management which exploits the economic potential of tourism without damaging monuments or the quality of life of the local residents – must be adopted as the motivating concept. Local employment opportunities are most likely to arise where the community feels included in heritage management. The community made a formal contribution at pre-planning procedure meetings before the adoption of the most recent strategy which saw the location of the Visitors Centre on the south bank of the river. This consultative process should continue and it could also include talks, farm visits and local community schemes in heritage management. Employment in the tourist sector and related service industries remains a big issue; it has considerable potential to provide a living for those who may be required to curtail profitable farming practices.

11H Conclusion

The passage tombs of Knowth, Dowth and Newgrange account for the world wide fame of the Bend of the Boyne and form the basis of the World Heritage Site designation. But the concept of the archaeological park encompasses the entire cultural landscape not merely site-specific islands of protection for internationally important monuments. By concentrating on the landscape as a whole, this study encourages the further development of the 'Protected Area'. Increased protection could accrue from an increased awareness of the wealth of the valley's heritage. After the Neolithic, the Bend of the Boyne was never again to the fore of international technological or artistic developments. Nonetheless, it was periodically illuminated by featuring prominently in historic events within Ireland and wider European

affairs. These include the arrival of Christianity to Ireland, the establishment of the first European-style monastery in Ireland, and the Battle of the Boyne. It could be argued that this exceptionalism is in fact a negative aspect in using the Archaeological Park as a representative cultural landscape. But this study, by embracing the Bend of the Boyne's total physical and cultural history, highlights how it speaks for all periods. The easiest course for the management of the area is to continue to focus on those areas of international significance in state ownership. This is the less contentious path and one which will least challenge local residents and traditional patterns of land ownership and landscape management. It is my sincere desire that this easy path will be rejected and the great challenge of preserving a cultural landscape within the wealthy and environmentally favoured east will be embraced by both the public and state institutions. The wild, western bias of tourism and landscape interpretation will be challenged, and indeed corrected in such a Boyne Valley Archaeological Park. If protection and interpretation are extended to the area as originally designated then William Wilde's assertion can become a living reality; 'that the history of Ireland might be written in tracing the banks of the Boyne'.[6]

6. W. Wilde, *The beauties of the Boyne and Blackwater* (Dublin 1849), p. 4.

Bibliography

Aalen, F. (ed.) (1985) *The future of the Irish rural landscape,* Dublin.

Aalen, F. 1985 'The rural landscape: change, conservation and planning' in Aalen, (ed.) *Future of the Irish rural landscape,* pp 1-25.

Aalen, F. 1986 'The re-housing of rural labourers in Ireland under the Labourers (Ireland) Act, 1883-1919' in *Journal of Historical Geography,* xii, pp 287-306,

Aalen, F. 1987 'Public housing in Ireland' in *Planning Perspectives,* ii, pp 175-93.

Aalen, F. (ed.) 1996 *Landscape study and management,* Dublin.

Aalen, F. 1996 'Approaches to the study and management of the landscape' in Aalen (ed.), *Landscape study,* pp 1-12.

Aalen, F. 1997 'Buildings', in Aalen, Whelan and M. Stout (ed.), *Atlas,* pp 145-79.

Aalen, F. 1997 'The Irish rural landscape: synthesis of habitat and history' in Aalen, Whelan and M. Stout (ed.), *Atlas,* pp 4-30.

Aalen, F. 1997 'Management of the landscape' in Aalen, Whelan and M. Stout (ed.) *Atlas,* pp 255-59.

Aalen, F., Whelan, K. and Stout, M. (ed.) 1997 *Atlas of the Irish rural landscape,* Cork.

Aitchison, J. 1996 'The World Heritage Convention: cultural sites and landscapes' in Aalen (ed.) *Landscape study,* pp 183-93.

Albright, H. 1985 *The birth of the National Park Service: the founding years, 1913-33,* Utah.

Alexander, R. and Gahan, S. 1987 'A review of sites protected for conservation in the Republic of Ireland', *Ir. Geog.,* xx, pp 82-8

Andrews, J. 1967 'A geographer's view of Irish history' in Moody and Martin (ed.), *Course of Irish history,* Cork, pp 17-29.

Andrews, J. 1986 'Land and people, *c.* 1780' in Moody and Vaughan (ed.), *New history of Ireland iv, eighteenth century,* pp 236-64.

Andrews, J. 1997 *Shapes of Ireland,* Dublin.

Anon., 1941 'Things umpires should look for' in *An Cosanthoir,* i, pp 12-16.

Anon., 1942 'Early silver ear ring found at Rossnaree' in *County Louth Archaeological and Historical Society Journal,* x, p. 157.

Arnold, L. 1993 *The restoration land settlement in county Dublin, 1660-1688: a history of the administration of the acts of settlement and explanation,* Dublin.

Atkinson-Willes, G. 1980 'The numerical distribution and the conservation requirements of swans in north-west Europe' in Anon., *Second International Swan Symposium,* Japan, pp 40-8.

I. Brown, *Twentieth century defences in Britain: an introductory guide* (London, 1995), p. 79.

Baldock, D. 1984 *Wetland drainage in Europe: the effects of agricultural policy in four EEC countries.* International Institute for Environment and Development and the Institute for European Environmental Policy, London.

Balfour, B. 1890 'Round tower at Proudfootstown' in *Journal of the Royal Society of Antiquaries of Ireland*, xxi, pp 247-8.

Balfour, J. 1984 *A new look at the Northern Ireland countryside*, Belfast.

Bangor-Jones, M. 1993 'The incorporation of documentary evidence and other historical sources into preservation and management strategies' in R. Hingley (ed.), *Medieval or later rural settlement in Scotland*, Edinburgh, pp 36-42.

Barnard, N. 1642 *The whole proceedings of the siege of Drogheda*, London.

Barnwall, S. 1983 'Darcys of Plattin, county Meath' in the *Irish Genealogist*, vi, pp 419-22.

Bateson, J. 1973 'Roman material from Ireland: a re-consideration' in *R.I.A.Proc.*, C, lxxv, pp 21-97.

Beresford-Ellis, P. 1976 *The Boyne Water*, Belfast.

Bhreathnach, E. 1995 *Tara: a select bibliography*, Dublin.

Bieler, L. 1979 *The Patrician texts in the book of Armagh*, Dublin.

Birks, H. 1988 'Introduction' in H. Birks, P. Kaland, M. Dagfinn. (ed.), *The cultural landscape: past, present, future*, Cambridge, pp 7-8.

Bord Failte-Cóspoir n.d. *Walking in Ireland*, Dublin.

Bowden, A. 1971 'The Carboniferous geology of P.L. 1039 and P.L. 1040 and adjoining application areas near Drogheda, county Louth', unpublished GSI report AB1/71.

Bowen, C. 1975-6 'An historical inventory of the Dindshenchas' in *Studia Celtica*, x-xi, pp 113-37.

Bradley, K., Skehan, C. and Walsh, G. (ed.) 1991 *Environmental impact assessment: a technical approach*, Dublin

Brady, Shipman and Martin 1992 National canals and waterways strategy, unpublished report, Office of Public Works, Dublin.

Brady, Shipman and Martin 1996 Boyne valley integrated development plan, unpublished report, Office of Public Works, Dublin.

Brady, C. 1996 'Surface collected flint from Site A, Newgrange, county Meath' in *Trowel* , vii, pp 41-5.

Brady, N. 1986 The plough in early historic and medieval Ireland, unpublished MA thesis, NUI Dublin.

Brennan, E. (ed.) 1990 *Heritage : a visitor's guide*, Dublin.

Brindley, A. and Lanting, J. 1990 'A Roman boat in Ireland' in *Arch. Ir.*, iv, pp 10-11.

British Parliamentary Papers, Famine Ireland, 8, 1846, 3.

Brooks, E. (ed.) 1953 *The Irish cartularies of Llanthony Prima and Secunda*, Dublin.

Brooks, E. 1953 'Fourteenth-century monastic estates in Meath' in *Journal of the Royal Society of Antiquaries of Ireland*, lxxxiii, pp 140-9.

Bruton, R. and Convery, F. 1982 *Land drainage policy in Ireland*, Dublin.

Buchanan, R. 1973 'Field systems of Ireland' in A. Baker and R. Butlin (ed.) *Studies of field systems in the British Isles*, London, pp 580-618.

Buchanan, R. 1982 'Landscape' in J. Cruickshank and D. Wilcock (ed.), *Northern Ireland: environment and natural resources,* Belfast, pp 265-89.

Buckley, V. 1988-9 'Meath souterrains: some thoughts on Early Christian distribution patterns' in *Riocht na Midhe,* viii, pp 64-7.

Buckley, V. and Sweetman, P. 1991 *Archaeological survey of county Louth,* Dublin.

Burl, H. 1969 'Henges: internal features and regional groups' in *Archaeological Journal,* cxxvi, pp 1-26.

Byrne, F. 1967 'Historical note on Cnogba (Knowth)' in G. Eogan, 'Excavations at Knowth, county Meath, 1962-5' in *R.I.A. Proc.*, lxvi, C, pp 383-400.

Byrne, F. 1987 *Irish kings and high kings,* London.

Cafferkey, S. 1996 Prehistory of the ploughzone in north-east county Wicklow, unpublished MA Thesis, Department of Archaeology, NUI Dublin.

Calendar of Irish patent rolls of James 1 1966 Dublin.

Campbell, J. 1960-3 'The tour of Edward Lhwyd in Ireland in 1699 and 1700' in *Celtica,* v, pp 218-28.

Carey, H. 1998 The kingdom and lordship of Meath: 1100-*c.*1215, unpublished MLitt thesis, Trinity College Dublin.

Carson, R. and O'Kelly, C. 1977 'A catalogue of the Roman coins from Newgrange, county Meath' in *R.I.A.Proc.*, C, lxxvii, pp 35-55.

Carville, G. 1969 The Cistercians in Ireland and their economy: 1142-1541, unpublished MA thesis, The Queens University of Belfast.

Casey, C. and Rowan, A. 1993 *The buildings of Ireland; North Leinster,* Dublin.

Caulfield, S. 1977 'The beehive quern in Ireland' in *Journal of the Royal Society of Antiquaries of Ireland,* cvii, pp 104-38.

Census of Ireland, 1841, 1851, 1861, 1871, 1881, 1891, 1901.

Chancery of Judiary Rolls of Ireland 1914 London.

Clare, T. 1986 'Towards a re-appraisal of henge monuments' in *Proceedings of the Prehistoric Society,* lii, pp 281-316.

Clare, T. 1987 'Towards a re-appraisal of henge monuments: origins, evolution and hierarchies' in *Proceedings of the Prehistoric Society,* liii, pp 457-77.

Clarke, A. 1967 'The colonisation of Ulster and the rebellion of 1641' in Moody and Martin (ed.), *The course of Irish history,* Cork, pp 189-203.

Cleary, R. 1983 'The ceramic assemblage' in M. O'Kelly, Cleary and Lehane, *Newgrange, county Meath,* pp 58-117.

Cleere, H. 1995 'Cultural landscapes as world heritage' in *Conservation and management of archaeological sites,* i, pp 65-8.

Clinton, M. 1996 'Two recently discovered souterrains in county Meath' in *Riocht na Midhe,* ix, pp 30-3.

Clinton, M. 1998 Structural aspects of souterrain in Ireland, unpublished PhD thesis, Galway NUI.

Cole, G. 1956 *Memoir and map of localities and minerals of economic importance and metaliferous mines in Ireland,* 2nd ed., Dublin.

Collins, B. 1997 'Appendix 3: plant remains' in Eogan and Roche, *Excavations at Knowth II,* pp 295-300.

Colmcille, Fr 1953 'Seven documents from the old abbey of Mellifont' in *County Louth Archaeological and Historical Journal,* xiii, pp 35-67.

Colmcille, Fr 1958 *The story of Mellifont,* Dublin.

Commission of the European Communities Com (91) 100 Fund 1991 'The development and future of the CAP', reflections paper of the Commission, Brussels.

Condit, T. 1997 'The Newgrange cursus and the theatre of ritual ' in *Brú na Boinne,* supplement to *Arch. Ir.*, xi, pp 26-7.

Condit, T. 1991 'Archaeology' in Bradley, Skehan and Walsh (ed.) *Environmental impact assessment,* pp 111-5.

Conway, M. 1968 'The Boyle O'Reilly stone' in *Journal of the Old Drogheda Society,* iv, pp 3-7.

Convery, F and Flanagan, S. 1991 *Tourism in County Meath: a strategy for the 90s,* Dublin.

Cooney, G. 1990 'The Mount Oriel project: an introduction in *Louth Archaeological and Historical Society Journal,* xxix, pp 125-33

Cooney, G. 1990 'The place of megalithic tomb cemeteries in Ireland' in *Antiquity,* lxiv, pp 741-53.

Cooney, G. 1991 'Irish Neolithic landscapes and land use systems: the implications of field systems' in *Rural History,* ii, pp 123-9.

Cooney, G. 1992 'The archaeological endowment' in J. Feehan (ed.), *Environment and development in Ireland,* Dublin, pp 70-80.

Cooney, G. 1998 The Red Mountain transect: the results of a pilot fieldwalking study in the Boyne Valley area, unpublished Dúchas report, Dublin.

Cooney G. and Grogan, E. 1994 *Irish prehistory: a social perspective,* Dublin.

Coones, P. 1992 'The unity of landscape' in Macinnes and Wickham-Jones (ed.), *All natural things: archaeology and the green debate* (Edinburgh), pp 22-40.

Corish, P. 1981 *The Catholic community in the seventeenth and eighteenth centuries,* Dublin.

Council of Europe 1966 *European Convention on the Protection of the Archaeological Heritage,* Strasbourg.

Council of Europe 1985 *Convention for the protection of the architectural heritage of Europe,* Granada.

Council of Europe 1992 *European Convention on the Protection of the Archaeological Heritage,* Valetta.

Council of Europe 1995 *Recommendation of the committee of ministers to member states on the integrated conservation of cultural landscape areas as part of landscape policies,* Strasbourg.

Countryside Commission 1983 *Management agreements: policy statements and grants,,* CCP 156, Cheltenham.

Countryside Commission 1986 *Heritage landscapes: management plans,* CCP206, Cheltenham.

Countryside Commission 1986 *Management plans: a guide to their preparation and use,* CCP205, Cheltenham.

Countryside Commission 1990 *Countryside and nature conservation issues in district local plans: guidance notes for district councils,* CCP 317, Cheltenham.

Countryside Commission 1992 *Protected landscapes in the United Kingdom,* CCP 326, Cheltenham.

Countryside Commission 1993 *Landscape assessment guidance,* CCP423, Cheltenham.

Cregan, M. 1996 'Landscape architecture: a view of the profession' in Aalen (ed.) *Landscape study,* pp 55-80.

Crookshank A. and Knight of Glin 1978 *The painters of Ireland c.1600-1920,* London.

Cross, S. 1991 An intensive survey of the early prehistoric archaeology in the environs of Fourknocks, county Meath, unpublished MA thesis, Department of Archaeology, NUI Dublin.

Cullen, L. 1977 'Eighteenth-century flour milling in Ireland' in *Ir. Ec. Soc. Hist.,*iv, pp 5-25.

Cullen, L. 1986 'Economic development: 1691-1750' in Moody and Vaughan (ed.), *New history of Ireland iv, eighteenth century,* Oxford, pp 123-58.

Cullen, L. 1988 'Man, landscape and roads: the changing eighteenth-century landscape' in Nolan (ed.), *The shaping of Ireland,* Dublin, pp 123-36.

Curran, O. *History of the Diocese of Meath 1860-1993* (Dublin, 1995), i, p. 336.

D'Alton, J. 1844 *The history of Drogheda with its environs and an introductory memoir of the Dublin and Drogheda railway,* 2 vols, Dublin.

Darvill, T. 1987 *Prehistoric Britain,* London.

Darvill, T. 1996 'European heritage and the recognition of cultural landscape areas' in Aalen (ed.) *Landscape study,* pp 173-181.

Darvill, T., Gerrard, C. and Startin, B. 1993 'Identifying and protecting historic landscapes ' in *Antiquity,* lxvii, pp 563-74.

O. Davies, I.T.A. Survey, Dúchas.

Day, A. (ed.), *Mrs Delanys undoing,* Kevin, can you complete this reference?.

Department of Agriculture 1932 First annual report of the Minister for Agriculture 1931-1932, Dublin.

Department of Agriculture 1941 Tenth annual report of the Minister for Agriculture 1940-41, Dublin.

Department of Agriculture 1942 Eleventh annual report of the Minister for Agriculture 1941-42, Dublin.

Department of Agriculture 1950 Nineteenth annual report of the Minister of Agriculture 1949-50, Dublin

Department of Agriculture 1953 Twenty-second annual report of the Minister of Agriculture 1952-53, Dublin

Department of Agriculture and Fisheries 1974 Annual Report of the Minister for Agriculture and Fisheries 1973-1974, Dublin.

Department of Agriculture and Fisheries 1975 Annual Report of the Minister for Agriculture and Fisheries 1974 Ireland, Dublin.

Department of Agriculture and Fisheries 1977 Annual Report of the Minister for Agriculture and Fisheries 1976 Ireland, Dublin.

Department of Agriculture 1982 Annual Report of the Minister for Agriculture 1981 Ireland, Dublin.

Department of Agriculture 1984 Annual Report of the Minister for Agriculture 1983 Ireland, Dublin.

Department of Agriculture 1986 Annual Report of the Minister for Agriculture 1985 Ireland, Dublin.

Department of Agriculture 1987 Annual Report of the Minister for Agriculture 1986 Ireland, Dublin.

Department of Agriculture and Food 1988 Annual Report of the Minister of Agriculture and Food 1988 Ireland, Dublin.

Department of Agriculture and Food 1989 Annual Report of the Minister of Agriculture and Food 1988 Ireland, Dublin.

Department of Agriculture, Food and Forestry 1994 *Rural Environment Protection Scheme,* Dublin.

Department of Agriculture, Food and Forestry 1996 *Schemes and services 1996,* Dublin.

Department of Arts, Culture and the Gaeltacht 1996 *Strengthening the protection of the architectural heritage,* Dublin.

Department of Arts, Culture and the Gaeltacht 1998 *Protecting our architectural heritage,* Dublin.

Department of Local Government 1963 *Planning and Development Act, 1963,* No. 28, Dublin.

Devine-Wright, P. and Lyons, E. 1997 'Remembering pasts and representing places: the construction of national identities in Ireland' in *Jn. Environ. Psych.,* xvii, pp 33-45.

Dillon, F. 1997 'Lithic assemblage' in Eogan and Roche, *Excavations at Knowth II,* p. 81.

Dimock, J. (ed. and trans.) 1967 *Expugnatio Hibernica Giraldi Cambrensis Opera,* Dublin.

Dobbs, M. 1926 'Some ancient placenames' in *Journal of the Royal Society of Antiquaries of Ireland,* lvi, pp 106-118.

Dúchas 1997 Record of monuments and places, county Louth, unpublished report, Dublin.

Dúchas 1997 Record of monuments and places, county Meath, unpublished report, Dublin.

Duffy, P. 1998 'Locality and changing landscape: geography and local history' in Gillespie and Hill (ed.), *Doing Irish local history: pursuit and practice,* Belfast, pp 24-46.

Dyson-Bruce, L. 1999 *Historic Lanscape Assessment,* Edinburgh.

Ellison, C. 1971 'Bishop Dopping's visitation book 1682-1685' in *Riocht na Midhe,* iv, pp 28-39.

Ellison, C. 1973 'Bishop Dopping's visitation book 1682-1685' in *Riocht na Midhe,* v, pp 2-11.

Ellison, C. 1983 *The waters of the Boyne and Blackwater,* Navan.

Elrington, C. 1864 *The whole works of Most Rev. James Ussher, Lord Archbishop and Primate of Ireland,* 2 vols., Dublin.

Environmental Impact Services Ltd. 1992 'Environmental Impact study for Oldbridge House golf and leisure development', unpublished report, Dublin.

Eogan, G. 1963 'A neolithic habitation-site and megalithic tomb in Townleyhall townland, county Louth' in *Journal of the Royal Society of Antiquaries of Ireland,* xciii, pp 37-81.

Eogan, G. 1966 'Excavations at Knowth, county Meath' in *R.I.A.Proc.,* C, lxvi, pp 199-382.

Eogan, G. 1974 'Report on the excavations of some passage graves, unprotected inhumation burials and a settlement site at Knowth, county Meath' in *R.I.A.Proc.,* C, lxxiv, pp 2-112.

Eogan, G. 1977 'Iron Age and Early Christian settlement' in V. Markotic (ed.), *Ancient Europe and the Mediterranean: studies in honour of Hugh Hencken,* England, pp 69-76.

Eogan, G. 1984 *Knowth: 21 years on,* guide to exhibition, NUI, Dublin.

Eogan, G. 1984 *Excavations at Knowth I,* Dublin.

Eogan, G. 1986 *Knowth and the passage-tombs of Ireland,* London.

Eogan, G. 1990 'The archaeology of Brugh na Boinne during the early centuries AD' in *Seanchas ard Mhacha,* v, pp 20-34.

Eogan, G. 1991 'Prehistoric and early historic culture change at Brugh na Boinne' in *R.I.A.Proc.,* C, xci, pp 105-132.

Eogan, G. 1997 'The passage tombs of Brú na Bóinne' in*Brú na Boinne;* supplement to *Arch. Ir.,* xi, pp 9-11.

Eogan, G. and Roche,H. 1994 'A Grooved Ware wooden structure at Knowth, Boyne Valley, Ireland' in *Antiquity,* lxviii, pp 322-30.

Eogan, G. and Roche,H. 1997 *Excavations at Knowth II,* Dublin.

Eogan, G. and Roche,H. 1997 'Pre-tomb Neolithic house discovered at Knowth' in *Arch. Ir.,* xi, p. 31.

Feehan, J. (ed.) 1992 *Environment and development in Ireland,* Dublin.

Feehan, J. 1992 'A direction for rural tourism on the farm' in Feehan (ed.), *Environment and development in Ireland,* pp 577-82.

Finch, T., Gardiner, M., Comey, M. and Radford, T. 1983 *Soils of county Meath,* Dublin.

Fleetwood, J. 1988 *The Irish body snatchers: a history of body snatching in Ireland* (Dublin,).

Fleming, A. 1996 'Total landscape archaeology – dream or necessity' in Aalen (ed.), *Landscape study,* Dublin, pp 81-92.

Fox, R. 1993 *Archaeology, history and Custers last battle,* Oklahoma.

Galway, F. 1985-6 'Meath towerhouses' in *Riocht na Midhe,* vii, pp 28-200.

Gardiner, M., Finch, T., Comey, M. and Radford, T. 1975 'Over one-third of Meath land has a drainage problem' in *Farm and Food Research,* vi, p. 15.

Geological Survey of Ireland 1871 'Explanatory memoir to accompany Sheets 91 and 92', unpublished memoir, Dublin.

Geraghty, J. 1994 'P.J. Dodd of Drogheda: architect and civil engineer' in *Journal of the Old Drogheda Society*, ix, pp 7-37.

Gilbert, D. 1992 'Appropriate rural development for social and environmental sustainability' in J. Feehan (ed.), *Environment and development in Ireland*, Dublin, pp 568-76.

Gilbert, J. 1882 *History of the Irish Confederation and the war in Ireland*, Dublin.

Gilbert, J. 1980 *A contemporary hsitory of affairs in Ireland from 1641-1652*, 2 vols, Dublin.

Gillespie, R. and Hill, M. (ed.) 1998 *Doing Irish local history: pursuit and practice*, Belfast.

Gillmor, D. 1989 'Agricultural development', in R. Carter and A. Parker (eds.), *Ireland: a contemporary geographical perspective on a land and its people*, London.

Gillmor, D. 1991 'Agricultural impacts and the Irish environment' in *Geographical Viewpoint*, xx, 5-22.

Gosling, P. 1987 'An interim measure' in *Arch. Ir.*, i, pp 23-27.

Gowen, M. 1992 'Excavation of two souterrain complexes at Marshes Upper, Dundalk, county Louth in *R.I.A.Proc.*, C, xcii, pp 55-120.

Gowan, M. 1992 'A Neolithic house at Newtown' in *Arch. Ir.*, vi, pp 25-7.

Graham, B. 1974 'Medieval settlements in County Meath' in *Riocht na Midhe*, v, pp 40-59.

Graham, B. 1975 'Anglo-Norman settlement in county Meath' in *R.I.A. Proc.*, C, lxxv, pp 223-49.

Graham, B. 1980 'The mottes of the Norman Liberty of Meath' in H. Murtagh (ed.), *Irish Midland Studies*, Athlone, pp 39-56.

Graves, Rev. J. 1980 'The Dowth eviction case' in *Journal of the Royal Society of Antiquaries*, cx, pp 205-9.

Green, B. 1996 'Landscape conservation or landscape preservation' in Aalen (ed.) *Landscape study*, pp 161-72.

Green, B. 1985 *Countryside conservation: the protection and management of amenity ecosystems*, 2nd ed., London.

Greeves, T. 1992 'Reclaiming the land: why archaeology is green' in Macinnes and Wickham-Jones (ed.) *All natural things*, pp 14-21.

Gregory, N. 1995 'River Boyne, Stalleen townland, county Meath: excavation report' in *County Louth Archaeological and Historical Journal*, xxiii, pp 329-35.

Griffith, R. 1854 *General valuation of rateable property in Ireland: county Meath*, Dublin.

Griffith, R. 1854 *General valuation of rateable property in Ireland: county Louth*, Dublin.

Groenman-van Watteringe, W. and Pals, J. 1994 'Pollen and seed analysis' in M. O'Kelly, *Newgrange*, pp 219-23.

Groenman-van Watteringe, W. and Pals, J. 1984 'Pollen and seed analysis' in Eogan, *Excavations at Knowth I*, pp 325-8.

Grogan, E. 1991 'Appendix: radiocarbon dates from Brugh na Boinne' in G. Eogan, 'Prehistoric and early historic culture change at Brugh na Boinne' in *R.I.A.Proc.*, C, xci, pp 126-7.

Guinan, B. 1992 'Fieldwalking in Irish archaeology' in *Trowel*, iii, pp 4-8.

Gunther, R. 1945 *Life and letters of Edward Lhwyd*, Oxford.

Gwynn, E. (ed. and trans.) 1924 *The Metrical Dindshenchas*, 5 vols., Dublin.

D. Hall, M. Hennessy and T. O'Keefe, 1985 'Medieval agriculture and settlement in Oughterard and Castlewarden, county Kildare' in *Ir. Geog.*, xviii, pp 16-25.

Harbison, P. 1998 'A shaft-fragment from Slane, county Meath, and other recent high cross discoveries' in C. Manning (ed.), *Dublin and beyond the Pale*, Dublin, pp 173-6.

Harding A. and Lee, G. 1987 *Henge monuments and related sites of Great Britain*, Oxford.

Harrington, P. 1992 'Images of the Boyne' in *Irish Sword*, xviii, pp 57-61.

Hennessy, W. and McCarthy B. (ed. and trans.) 1887-1901 *Annals Uladh, Annals of Ulster, otherwise, Annala Senait, Annals of Senat: A chronicle of Irish Affairs from AD 431 to AD 1540*, 4 vols, Dublin.

Herity, M. 1967 'From Lhuyd to Coffey: new information from unpublished descriptions of the Boyne valley tombs' in *Stud. Hib.*, vii, pp 127-45.

Herries Davies, G. and Stephens, N. 1978 *Ireland*, London.

Hewitt, S. 1992 'European policy and management at European level' in Feehan (ed.) *Environment and development*, pp 259-70.

Hewitson, A. (ed.) 1908 *Diary of Thomas Bellingham: an officer under William III*, Preston.

Hickey, E. 1965 'The house of Cleitech' in *Riocht na Midhe*, iii, pp 181-5.

Hickey, E. 1966 *I send my love along the Boyne*, Dublin.

Hickey, E. 1994 *Skryne and the early Normans*, Dublin.

Hickey, E. and Rynne, E. 1953 'Two souterrains on the lower slopes of Tara' in *Journal of the Kildare Archaeological Society*, xiii, pp 220-1.

Hicks, R. 1975 Some henges and hengiform earthworks in Ireland: form, distribution, astronomical correlations and associated mythology, unpublished PhD thesis, University of Pennsylvania.

Hodgers, D. 1994 'The Salterstown surface collection project' in *Louth Archaeological and Historical Society Journal*, xxiii, pp 240-68.

Hogan, E. (ed. and trans.) 1892 *Cath Ruis na Rig for Boinn*, Dublin.

Holroyd, J. 1785 *Observations on the manufacturing trade and present state of Ireland*, Dublin.

Horn, W. and Born, E. 1965 *The barns of the abbey of Beaulieu at its granges of Great Coxwell and Beaulieu-St. Leonards*, Berkeley.

Hornell, J. 1938 *British coracles and Irish curraghs*, London.

Hossack, H. 1993 *Buildings at risk*, Belfast.

Houghton, J. (ed.), 1978 *Atlas of Ireland*, Dublin.

Hughes, J. and Huntley, B. 1988 'Upland hay meadows in Britain: their vegetation, management and future' in Birks *et al.* (ed.),*Cultural landscape: past, present, future,* pp 91-110.

Hyde, D. 1993*Building on the past: urban change and archaeology,* Dublin.

Hyland, J. 1997 'The battle of the Boyne' in *Command Magazine,* xliii, pp 30-46.

Jackson, J. 1978 'Metallic ores in Irish prehistory: copper and tin' in M. Ryan (ed.), *The origins of metallurgy in Atlantic Europe,* Hojberg, pp 107-25.

Jones Hughes, T. 1958 'East Leinster in the mid-nineteenth century' in *Ir. Geog.,* iii, pp 227-41.

Jones Hughes, T. 1970 '*Town* and *Baile* in Irish place-names' in N. Stephens and R. Glasscock (ed.), *Irish geographical studies in honour of E. Estyn Evans,* Belfast, pp 244-58.

Jones Hughes, T. 1987 'Landholding and settlement in counties Meath and Cavan in the nineteenth century' in P. O'Flanagan, P. Ferguson and K. Whelan (ed.), *Rural Ireland: modernisation and change 1600-1900,* Cork, pp 104-46.

Keane, E. 1995 'Interpreting, preserving and managing ritual landscapes', unpublished abstract from the 60th anniversary conference of the Prehistoric Society, Dublin.

Keane, E. 1997 'The visitor centre: gateway to Brú na Bóinne' in *Brú na Bóinne,* supplement to *Arch. Ir.,* xi, pp 36-7.

Kelly, E. 1984 'Two quernstones from county Meath' in *Riocht na Midhe,* vii, pp 104 -11.

Kelly, E. 1993 'Investigation of ancient fords on the river Suck' in *Inland Waterways News,* xx, pp 4-5.

Kenny, M. 1978-79 'Land Tenure in east Westmeath and its influence upon the state of agriculture, 1820-1840' in *Riocht na Midhe,* vi, pp 33-48.

Killen, J. 1997 'Communications' in Aalen, Whelan and Stout (ed.) *Atlas,* pp 206-19.

Kirby, K. 1988 'Conservation in British woodland' in Birks, *et al.* (ed.),*Cultural landscape,* pp 79-89.

Lack, P. 1986 *The atlas of wintering birds in Britain and Ireland,* Staffordshire.

Lambrick, G. 1992 'The importance of cultural heritage in a green world: towards the development of landscape integrity assessment' in Macinnes and Wickham-Jones (ed.), *All natural things,* pp 105-126.

Laux, L. 1997 'National Parks and education' in F. O'Gorman, T. Bryson and B. Green (ed.), *Tourism and protected areas; final report of the fifth European training seminar for managers of protected areas,* Dublin, p. 3.

Laverty, J. 1892 'Miscellanea: Newgrange still called by its ancient name, Brugh na Boinne' in *Journal of the Royal Society of Antiquaries of Ireland,* xxii, p. 430.

Leavy, T. and Coulter, B. 1997 'REPS: Highest uptake in Midlands and West' in *Today's Farm,* vii, p. 42.

Lehane, D. 1983 'The flint work' in M. O'Kelly, R. Cleary and D. Lehane (ed.), *Newgrange, county Meath, Ireland,* Oxford, pp 118-70.

Leopold, A. 1989 *A Sand County almanac,* 3rd ed., Oxford.

Lewis, S. 1837 *Topographical dictionary of Ireland,* 2 vols, London.

Lindsay, A. 1992 'Architectural heritage inventory post-1700' in Feehan (ed.) *Environment and development in Ireland,* p. 113.

Liversage G. 1960 'A neolithic site at Townleyhall, county Louth' in *Journal of the Royal Society of Antiquaries of Ireland,* xc, pp 49-60.

Lucas, A. 1953 'The horizontal mill in Ireland' in *Journal of the Royal Society of Antiquaries of Ireland,* lxxxiii, pp 1-36.

Lucas, A 1971-73 'Souterrains: the literary evidence' in *Bealoideas,* xxxix-xliv, pp 39-41.

Lucas, P. 1992 *Protected landscapes: a guide for policy-makers and planners,* London.

Lunnon, R. 1991 'Ireland: the last stronghold of the European otter' in P. Nugent (ed.), *Natural Heritage,* Longford, pp 117-9.

Lyons, M. 1993 *Illustrated encumbered estates: Ireland, 1850-1905,* Clare.

MacAirt, S. and MacNiocaill, G. (ed. and trans.) 1983 *The Annals of Ulster (to AD 1131),* Dublin.

McCabe, A. 1972 'Directions of late-Pleistocene ice-flows in eastern counties Meath and Louth' Ireland', in *Ir. Geog.,* vi, pp 443-61.

McCabe, A. 1973 'The glacial stratigraphy of Meath and Louth' in *R.I.A.Proc.,* C, lxxiii, pp 355-82.

McCormick, F. 1985 'appendix I' in Sweetman, 'Pit circle at Newgrange', pp 219-20.

McCormick, F. 1992 'Exchange of livestock in Early Christian Ireland, AD 450-1150' in *Anthropozoological Journal,* xvi, pp 31-6, p. 31.

McCormick, F. 1997 'Animal bone analysis from Neolithic and Beaker complexes' in Eogan and Roche, *Excavations at Knowth II,* pp 301-6.

McCracken, E. 1987-93 'Tree planting by tenants in Meath 1800-1850' in *Riocht na Midhe,* viii, pp 3-20.

McCracken, J. 1986 'The ecclesiastical structure, 1714-60' in Moody and Vaughan (ed.), *A new history of Ireland iv,* pp 84-104.

McGrath, B. 1994-5 'County Meath from the Depositions' in *Riocht na Midhe,* ix, pp 24-41.

Macinnes, L. and Wickham-Jones, C. (ed.) 1992 *All natural things: archaeology and the green debate,* Edinburgh.

Macinnes, L. 1996 'Between idea and reality: integrating landscapes in practice' in Aalen (ed.) *Landscape study,* pp 135-150.

Mackay, D. 1993 'Scottish rural highland settlement: preserving a people's past' in R. Hingley (ed.), *Medieval or later rural settlement in Scotland: management and preservation,* Edinburgh, pp 43-51.

Mangan, C. 1993-95 'Plans and operations' in *Irish Sword,* xix, pp 47-56.

Mansergh, N. 1991 'Housing and conservation' in J. Feehan (ed.), *Environment and Development in Ireland,* Dublin, pp 109-13.

Marstrander, C. 1911 'A new version of the Battle of Mag Rath' in *Ériú,* v, pp 226-9.

Matthews, S. 1987 'Place and People: a family exploration, unpublished family history.

Matthews, S. 1994 'Under the hill of Donore' in *Journal of the Old Drogheda Society,* ix, pp 118-28.

Mawhinney, K. 1979 'Recreation' in D. Gillmor (ed.) *Irish resources and land use,* Dublin, pp 196-225.

Meath County Council, *County Meath Development Plan* (Navan, 1994).

Meath Leader II, *Meath's farming future; facing challenge,* (Kells, 1999).

Meehan, R. and Warren, W. 1999 *The Boyne valley in the Ice Age; a field guide to some of the valley's most impressive glacial geological features,* Dublin..

Meeus, J., Wijermans, M. and Vroom, M. 1990 'Agricultural landscapes in Europe and their transformation' in *Landscape and Urban Planning,* xviii, pp 289-352.

Mercer, I. 1979 *Buildings in the Dartmoor National Park,* Dartmoor.

J. Mills and J. Mc Enery (ed.), *Calendar of the Gormanston Register* (Dublin, 1916) p. 177.

Mitchell and Associates 1992 *Environmental impact statement, Park Centre Building for Boyne Valley Archaeological Park: non-technical summary,* Dublin.

Mitchell, G.F. 1976 *The Irish landscape,* Cork.

Mitchell, G.F. 1984 'The landscape' in G. Eogan, *Excavations at Knowth I,* Dublin, pp 9-11.

Mitchell, G.F. 1992 'Notes on some non-local cobbles at the entrance to the passage-graves at Newgrange and Knowth, county Meath' in *Journal of the Royal Society of Antiquaries of Ireland,* cxxii, pp 128-45.

Mitchell, G.F. 1995 'Did the tide once flow as far as Newgrange?' in *Living Heritage,* xii, p. 34.

Mitchell, G.F 1997 'The geology of the Bend of the Boyne' in *Brú na Bóinne: A supplement to Archaeology Ireland,* xi, pp 5-6.

Mitchell, G.F. and Ryan, M. 1997 *Reading the Irish landscape,* Dublin,.

Moore, M. (comp.), 1987*The archaeological inventory of county Meath,* Dublin.

Mohen, J.-P. 1990 *The world of megaliths,* New York..

Monk, M. 1994 Macroscopic plant remains' in M. O'Kelly, *Newgrange,* pp 219-23.

Moody, T. and Martin, F. (ed.) 1967 *The course of Irish history.* Cork.

Moody, T. and Vaughan, W. (ed.) 1986 *A new history of Ireland iv, the eighteenth century: 1691-1800,* Oxford.

Mount, C. 1994 'Aspects of ritual deposition in the Late Neolithic and Beaker periods at Newgrange, county Meath' in *Proceedings of the Prehistoric Society,* lx, pp 433-43.

Murphy, Rev. D. 1883 *Cromwell in Ireland: a history of Cromwell's Irish campaign,* Dublin.

Murray, M. and Greer, J. 1990 'Prized landscapes and recreation policy in Northern Ireland: the Mournes exemplar' in *Ir. Geog.,* xxiii, pp 43-9.

Murray, R. (ed.) 1912 *The journal of John Stevens,* Oxford.

National Park Service 1975 Interpretative prospectus: Little Bighorn Battlefield National Monument, unpublished United States Department of the Interior report.

National Park Service 1995 Final general management plan and development concept plans: Little Bighorn National Monument, unpublished United States Department of the Interior report.

Neville, W. 1957-59 'The Carboniferous knoll-reefs of east central Leinster' in *R.I.A.Proc.*, B, lix, pp 285-303.

Newman, C. 1997 *Tara: an archaeological survey*, Dublin.

Newman, C. and Bhreathnach, E. 1993 'Tara project' in *Discovery Programme reports: 1, project results 1992*, Dublin, pp 69-103.

Nolan, W. 1982 *Tracing the past: sources for local studies in the Republic of Ireland*, Dublin.

Nolan, W. 1988 'New farms and fields: migration policies of state land agencies, 1891-1980' in W. Smyth and K. Whelan (ed.) *Common ground: essays on the historical geography of Ireland*, Cork, pp 296-319.

Nolan, W. (ed.) 1988 *The shaping of Ireland*, Dublin.

O'Byrne, E. (ed.) 1981 *The convert rolls*, Dublin.

O'Carroll, D. 1992 'An indifferent good post: the battlefield of the Boyne' in *Irish Sword*, xviii, pp 49-56.

O'Carroll, D. 1993-95 'The emergency army' in *The Irish Sword*, xix,pp, 19-46.

Ó Cathasaigh, T. 1989-90 'The Eponym of Cnogba' in *Eigse*, v, pp 27-38.

O'Connor-Nash, P. 1992 'The great houses: how to breastfeed a dinosaur in the late 20th century' in J. Feehan (ed.) *Environment and development in Ireland*, Dublin,), pp 114-7.

O'Conor, K. 1998 *The archaeology of medieval rural settlement in rural Ireland*, Dublin.

O'Donovan, J. 1842 'Fled Duin na nGed' (Dublin,).

O'Donovan, J. 1848-51 *Annala Riogachta Eireann. Annals of the kingdom of Ireland by the Four Masters from the earliest period to the year 1616*, seven vols, Dublin.

Office of Public Works 1995 *Establishment and Exhibition of Record of Monuments and Places under Section 12 National Monuments (Amendment) Act 1994*, Dublin.

O'Flanagan, Rev. M. 1836 Letters containing information relating to the antiquities of county Meath collected during the progress of the survey.

O'Grada, C. 1994 *Ireland: a new economic history 1780-1939*, Oxford.

O'Grady, S. (ed. and trans.) 1892 *Silva Gadelica, (i.-xxxi): A collection of tales in Irish with extracts illustrating persons and places*, London.

O'Halpin, E. 1996 'The army in independent Ireland' in T. Bartlett and K. Jefferey (ed.), *A military history of Ireland*, Cambridge, pp 407-30.

O'Keefe, T. 1992 'Medieval frontiers and fortifications: the Pale and its evolution' in F. Aalen and K. Whelan (ed.), *Dublin from prehistory to present – studies in honour of J. H. Andrews*, Dublin, pp 57-77.

O'Kelly, C. 1978 *Illustrated guide to Newgrange and the other Boyne monuments*, 3rd ed., Cork.

O'Kelly, M. 1968 'Surface collected flints from two sites in the Boyne valley, county Meath' in *Journal of the Cork Historical and Archaeological Society*, lxxiii, pp 114-9.

O'Kelly, M. 1976 'Plough pebbles from the Boyne Valley' in C. Ó Danachair (ed),*Folk and farm: essays in honour of A.T. Lucas,* Dublin, pp 165-175.

O'Kelly, M. 1994 *Newgrange: archaeology art and legend,* 2nd ed., London.

O'Kelly, M., Cleary, R. and Lehane, D. (ed.) 1983 *Newgrange, county Meath, Ireland,* Oxford.

O'Kelly, M., Lynch, F. and O'Kelly, C. 1978 'Three passage graves at Newgrange, county Meath' in *R.I.A.Proc.,* C, lxxviii, pp 249-352.

O'Kelly, M. and O'Kelly, C. 1983 'The tumulus of Dowth, county Meath' in *R.I.A.Proc.,* C, lxxxiii, pp 136-90.

O'Kelly, M. and Shell, C. 1979 'Some objects and a bronze axe from Newgrange, county Meath in M. Ryan (ed.), *Origins of metallurgy in Atlantic Europe,* Dublin, pp 127-44.

Ó Lochlainn, C. 1940 'Roadways in ancient Ireland' in J. Ryan (ed.) *Essays and studies presented to Professor Eoin Mac Néill,* Dublin, pp 465-74

Oldham, P. 1995 *A guide to the design, construction and use of concrete pillboxes in 1914-1918,* London.

O'Neill, A. 1989 National Archaeological Park: Boyne Valley, unpublished consultancy report, Dublin.

O'Reilly, P. and Tuite, B. (ed.) n.d. *The cry of the dreamer and other poems,* Drogheda.

Ó Riain, P. 1972 'Boundary association in Early Irish society' in *Studia Celtica,* vii, pp 12-29.

Ó Ríordáin, D. 1999 'Interpreting the interpretation' in *Arch. Ir.,* xiii, pp 8-9.

Ó Riórdáin, S. 1953 *Antiquities of the Irish countryside,* London.

Orpen, G. (ed. and trans.) 1892 *The song of Dermot and the Earl,* Oxford.

Orpen, G. 1894 'Ptolemy's map of Ireland' in *Journal of the Royal Society of Antiquaries of Ireland,* xxiv, pp 115-28.

Ó Siochrú, M. 1999 *Confederate Ireland 1642-1649: a constitutional and political analysis,* Dublin.

O'Sullivan, H. n.d. Northern Motorway environmental impact study, Stamullin to Monasterboice: report on cultural and heritage aspects, unpublished EIS, Louth County Council.

O'Sullivan, M. 1993 *Megalithic art in Ireland,* Dublin.

O'Sullivan, M. and Kennedy, L. 1998 'The survival of archaeological monuments: trends and attributes' in *Ir. Geog.,* xxxi, pp 88-99.

O'Sullivan, W. 1985-86 'Medieval Meath manuscripts' in *Riocht na Midhe,* vii, pp 3-21.

Otway-Ruthven, A. 1980 *A history of medieval Ireland,* 2nd ed., New York.

Park, J. (ed.) 1988 *Environmental management in agriculture: European perspectives,* Environmental Unit, Agricultural Development and Advisory Service, Ministry of Agriculture, Fisheries and Food (UK), London.

Pender, S. (ed.) 1939 *A census of Ireland* circa *1659, with supplementary material from the poll money ordinacnces (1660-1661),* Dublin.

Petrie, G. 1845 *The ecclesiastical architecture of Ireland anterior to the Anglo-Norman period,* Dublin.

Piggot, S. 1962 *The West Kennet Long Barrow,* London.

Plachter, H. and Rossler, M. 1995 'Cultural landscapes: reconnecting culture and nature' in B. Droste, H. Plachter and M. Rossler (ed.), *Cultural landscapes of universal value,* Stuggart, pp 15-18.

Platt, C. 1969 *The monastic grange in medieval England,* London, p. 15.

Plummer, C. 1910 *Vitae Sanctorum Hiberniae,* Oxford.

Power, D. (comp.) 1992 *Archaeological inventory of county Cork, i, West Cork,* Dublin.

Prendergast, F. 1991 'New data on Newgrange' in *Technology Ireland,* xxii, pp 22-25.

Prendergast, F. 1991 'Shadow casting phenomena at Newgrange' in *Survey Ireland,* ix, pp 9-18.

Quigley, M 1997 'The effects of EC policy on the rural landscape and environment of Ireland' in M. Blacksell and A. Williams (ed.) *The European Challenge,* London.

Raftery, B. 1997 *Pagan Celtic Ireland,* 2nd ed., London.

Raftery, J. 1941 'Long stone cists of the Early Iron Age' in *R.I.A.Proc.,* C, xlvi, pp 299-315.

Reilly, T. 1993 *Cromwell at Drogheda,* Drogheda.

Reeves-Smith, T. 1997 'Demesnes' in Aalen, Whelan.and M. Stout (ed.) *Atlas,* pp 197-205.

Reid, T. 1823 *Travel in Ireland in the year 1822,* London.

Reidy, K. 1989 'Farmers attitudes to countryside protection' in *Farm and Food Research,* xx, pp 13-14.

Reynolds, J. 1984 *A life on the Boyne,* Trim.

Roche, H. 1997 'Prehistoric settlement in Brú na Boinne' in *Brú na Boinne;* supplement to *Arch. Ir.,* xi, pp 28-9.

Roe, H. 1968 *The medieval fonts of Meath,* Dublin.

Rohan, P. 1986 *The climate of Ireland,* Dublin.

Royal Irish Academy 1913-76 *Dictionary of the Irish language,* Dublin.

Sadleir, T. 1915 *Georgian mansions in Ireland,* Dublin.

Sauer, C. 1925 'The morphology of landscape' in *Publications in Geography,* ii, pp 11-54.

Saunders, A. 1989 *Fortress Britain: artillery fortifications in the British Isles and Ireland,* London.

Scannell, Y. 1991 'The European Community Directive on Environmental Impact Assessment and its implementation in Ireland' in K. Bradley, C. Skehan and G. Walsh (ed.), *Environmental impact assessment: a technical approach,* Dublin, pp 7-20.

Schofield, A. (ed.) 1991 *Interpreting artefact scatters: contributions to ploughzone archaeology,* Oxford.

Scott, A. and Martin, F. (ed. and trans.) 1978 *Expugnatio Hibernica; the conquest of Ireland by Giraldus Cambrensis,* Dublin.

Scott, D., Fox, R., O'Connor, M. and Harmon, D. 1989 *Archaeological perspectives on the Battle of Little Big Horn,* Oklahoma.

Shaffrey, P. and Shaffrey, M. 1985 *Irish countryside buildings: everyday architecture in the rural landscape*, Dublin.

Simington, R. (ed.) 1940 *The Civil Survey: county Meath 1654-56*, Dublin.

[G. S.], 1856 'Two unpublished diaries related to the battle of the Boyne' in *Ulster Journal of Archaeology*, iv, pp 77-95.

Shine, J. 1985 'Rural landscape and the planner' in Aalen (ed.), *Future of the Irish rural landscape*, pp 73-201.

Simington, R. 1940 *The Civil Survey: county of Meath*, v, Dublin.

Simms, J. 1971 *A Jacobite narrative of the war in Ireland: 1688-1691*, Shannon.

Simms, J. 1974 'Cromwell at Drogheda' in *Irish Sword*, xi, pp 212-21.

Smith, B. 1993 'The de Pitchford family in thirteenth-century Ireland' in *Studia Hibernica*, xxvii, pp 29-43.

Smith, B. 1999 *Colonisation and conquest in medieval Ireland: the English in Louth 1170-1330*, Cambridge.

Smith, K. 1992 'Protected landscapes: integrated approaches to conservation management' in Macinnes and Wickham-Jones (ed.) *All natural things*, pp 127-33.

Smyth, W. 1976 'Estate records and the making of the Irish landscape; an example from county Tipperary' in *Ir. Geog.*, ix, pp 29-47.

Smyth, W. 1978 'Locational patterns and trends within the pre-famine linen industry' in *Ir. Geog.*, viii, pp 97-110.

Smyth, W. 1988 'Flax cultivation in Ireland: the development and demise of a regional staple' in Smyth and Whelan (ed.), *Common ground*, pp 234-52.

Smyth, W. 1988 'Society and settlement in seventeenth century Ireland: the evidence of the '1659 Census' in Smyth and Whelan (ed.), *Common ground*, pp 55-83.

Smyth, W. 1992 'Exploring the social and cultural geographies of sixteenth and seventeenth-century county Dublin' in Aalen and Whelan (ed.), *Dublin from prehistory to present*, pp 121-79.

Smyth, W. 1997 'The greening of Ireland – tenant tree-planting in the eighteenth and nineteenth centuries' in *Irish Forester*, liv, pp 55-72.

Smyth, W. and Whelan, K. (ed.) 1988 *Common ground: essays on the historical geography of Ireland*, Cork.

Stalley, R. 1987 *The Cistercian monasteries of Ireland*, London.

Steinberg, J. 1996 'Ploughzone sampling in Denmark: site signatures from disturbed contexts' in *Antiquity*, lxx, pp 368-92.

Stokes, W. (ed. and trans.) 1905 *Martyrology of Oengus, the Culdee*, London.

Streeten, A. 1994 'Managing ancient earthworks: diagnosis, cure and prevention of erosion' in A. Berry and I. Brown (ed.), *Erosion on archaeological earthworks: its prevention, control and repair*, Clwyd, pp 5-15.

Story, G. 1693 *An impartial history of the wars of Ireland*, London.

Stout, G. 1984 *Archaeological survey of the barony of Ikerrin*, Roscrea.

Stout, G. 1991 'Embanked enclosures of the Boyne region' in *R.I.A.Proc.*, xci, C, pp 245-84..

Stout, G. 1993 'Grant-aided change in the Boyne Valley Archaeological Park: agricultural grants 1950-1990' in *Ir. Geog.*, xxvi, pp 79-88.

Stout, G. 1997 *The bend of the Boyne: an archaeological landscape*, Dublin.

Stout, G. 1997 'Fishing at Brú na Boinne' in *Brú na Boinne:* a supplement to *Archaeology Ireland*, xi, pp 34-5.

Stout, G. and Keane, M. 1997 *Farming and the ancient countryside*, Dublin.

Stout, G. and Stout, M. 1992 'Patterns in the past: county Dublin 5000BC-1000AD in Aalen and Whelan (ed.), *Dublin from prehistory to present*, pp 5-25.

Stout, G. and Stout, M. 1997 'Early landscapes: from prehistory to plantation' in Aalen, Whelan and Stout (ed.), *Atlas*, pp 31-63.

Stout, M. 1992 'The geography and implications of Post-Famine population decline in Baltyboys, county Wicklow' in C. Morash and R. Hayes (ed.), *'Fearful realities': new perspectives on the Famine*, Dublin, pp 15-34.

Stout, M. 1997 *The Irish ringfort*, Dublin.

Sweetman,H. 1875 *Calendar of documents relating to Ireland 1171-1251*, Dublin.

Sweetman, D. 1985 'A Late Neolithic/Early Bronze Age pit circle at Newgrange, county Meath' in *R.I.A.Proc.*, C, lxxxv, pp 195-221.

Sweetman, D. 1987 'Excavations of a Late Neolithic/Early Bronze Age site at Newgrange, county Meath' in *R.I.A.Proc.*, C, lxxxvii, pp 283-98.

Sweetman, D. 1976 'An earthen enclosure at Monknewtown, Slane, county Meath' in *R.I.A.Proc.*, C, lxxvi, pp 25-72.

Swift, C. 1996 'Pagan monuments and Christian legal centres in early Meath' in *Riocht na Midhe*, ix, pp 1-26.

Synge, F. 1977 'The coasts of Leinster' in C. Kidson and M. Tooley (ed.), *The quaternary history of the Irish sea*, Liverpool, pp 199-222.

Synge, F. 1979 *IQUA field handbook: annual field meeting 1979*, Dublin.

Synnott, P. n.d. The Netterville monument and family: formerly of Dowth, county Meath, unpublished family history.

Thomas, C. 1982 *Christianity in Roman Britain to AD 500*, London.

Thompson, R. 1802 *Statistical survey of county Meath*, Dublin.

Tictchen, S. 1996 'On the construction of outstanding universal value' in *Conservation and management of archaeological Sites*, i, pp 235-42.

Tilden, F. 1977 *Interpreting our heritage*, 3rd ed., Chapel Hill.

Tomlinson, R. 1996 'Tree planting by tenants in county Down during the eighteenth and nineteenth centuries' in *Ir. Geog.*, xxix, pp 83-95.

Tuite, P. 1985 'New farm buildings' in Aalen (ed.), *The future of the Irish rural landscape*, Dublin, pp 46-55.

UNESCO 1994 *Intergovernmental committee for the protection of the world cultural and nature heritage operational guidelines for the implementation of the World Heritage Convention,* WHC/2, Paris.

Vaughan, W. 1994 *Landlords and tenants in mid-Victorian Ireland,* Oxford.

Vervloet, J., Renes, J. and Spek, T. 1996 'Historical geography and integrated landscape research' in Aalen (ed.), *Landscape study,* pp 112-22.

Wainwright, G. 1969 'A review of henges in the light of recent research' in *Proceedings of the Prehistoric Society,* xxxv, pp 112-33.

Wainwright, G. 1989 *The henge monuments,* London.

Walsh, J. 1986 'Uneven development in agriculture in Ireland' in Geographical Viewpoint, xiv, pp 37-65.

Webb, R. 1988 'The status of hedgerow field margins in Ireland' in J. Park (ed.), *Environmental management in agriculture - European perspective,* London.

Weir, D. 1995 'A palynological study of landscape and agricultural development in county Louth from the second millenium BC to the first millennium AD' in *Discovery Programme project results 2,* Dublin, pp 77-126.

Went, A. 1953 'Material for a history of the fisheries of the river Boyne' in *County Louth Archaeological and Historical Journal,* xiii, pp 18-33.

Westropp, T. 1901 'Slane in Bregia, county Meath: its friary and hermitage' in *Journal of the Royal Society of Antiquaries of Ireland,* xxxiii, pp 405-30.

Westropp, T. 1906 'Ancient place-names, Brugh of the Boyne and others' in *Journal of the Royal Society of Antiquaries of Ireland,* xxxvi, pp 82-3.

Wheeler, H. 1985 'The national monuments of Ireland' in *Arch. Camb.,* cxxxiv, pp 1-10.

Whelan, K. 1983 'The Catholic church, the Catholic chapel and village development in Ireland' in *Irish Geography,* xvi, pp 1-15.

Whelan, K. 1988 'The regional impact of Irish catholicism: 1700-1850' in Smyth and Whelan (ed.), *Common ground,* pp 257-77.

Whelan, K. 1995 'Review' in *History Ireland,* iii, pp 61.

Whelan, K. 1997 'The modern landscape: from plantation to present', in Aalen, Whelan and M. Stout (ed.), *Atlas,* pp 67-103.

White-Marshall, J. and Walsh, C. 1994 'Illaunloughan: life and death on a small early monastic site' in *Arch. Ir.,* viii, pp 24-8.

Wijngaarden-Bakker, L. van 1974' The animal bones from the Beaker settlement at Newgrange, county Meath: first report' in *R.I.A.Proc.,* C, lxxiv, pp 313-83.

Wijngaarden-Bakker, L. van 1980 *An archaeological study of the Beaker settlement at Newgrange, Ireland,* Amsterdam, p. 185.

Wijngaarden-Bakker, L. van 1986 'The animal remains from the Beaker settlement at Newgrange, county Meath: final report' in *R.I.A.Proc.,* C, lxxxvi, pp 2-111.

Wild, P. 1979 *Pioneer conservationists of western America,* Montana.

Wilde, W. 1849 *The beauties of the Boyne and Blackwater,* Dublin.

Wilde, W. 1850 *The beauties of the Boyne and Blackwater*, 2nd ed., Dublin.

Williams, M. 1994 'The relations of environmental history and historical geography' in *Jn. Hist. Geog.*,xx, pp 3-21.

Willis, H. 1985 *Pillboxes: a study of UK defences 1940*, London.

Wilson, T. 1980-86 'The great landowners of Meath, 1789' in *Riocht na Midhe*, vii, pp 99-110.

Woodman, P. and Anderson, E. 1990 'The Irish Later Mesolithic: a partial picture' in P. Vermeersch and P. Van Peer (ed.), *Contributions to the Mesolithic in Europe*, Leuven, pp 377-87.

Young, A. 1970 *Tour of Ireland*, 2 vols., reprinted Shannon, pp 37-49.

Zvelebil, M., Moore, M., Green, J. and Henson, D. 1987 'Regional survey and the analysis of lithic scatters: a case study from south-east Ireland' in R. Conway, M. Zvelibil and H. Blankholm (ed.), *Mesolithic north-west Europe: recent trends*, Sheffield.

Zvelibil, M., Mackin, M., Passmore, M. and Ramsden, P. 1996 'Alluvial archaeology in the Barrow valley, south-east Ireland: the Riverford culture re-visited' in *Journal of Irish Archaeology*, vii, pp 13-40.

Table 8.3
Mid ninteenth-century houses and holdings in the Bend of the Boyne

Key – C = Caretaker, CFM = Corn/Flour Mill, CH = Chapel, CM = Cornmill, CO = Coachman, D = Destroyed (house), F= Forge, FI = Fishery, G = Garden, GL = Gate Lodge, GR = Graveyard, H = House, HE = Herd, K = Kiln, L = Land, LH = Lock House, MD = Master's Dwelling, NS = National School, O = Office/s, P = Present (house), PA = Parish, PL = Ploughman, Q = Quarry, S = School, SM = Small, SR = Stores, ST = Steward, W = Widow, WA = Watchhouse, WO = Workman, WR = Woodranger, Y = Yard

No.	Townland	Occupier	Lessor	Description	Area	Land Value	Building Value	Status
1a	Balfeddock	Patrick Drew	C.A. Caldwell	C H, O, L.	84	122	75	P
1b	Balfeddock	Peter Russell	Patrick Drew	H			10	D
1c	Balfeddock	Judith Ogle	Patrick Drew	H, O, G	0.25	5	15	D
1d	Balfeddock	John Leech	Judith Ogle	H			5	
2	Balfeddock	Patrick Drew	James Newman	L	73	152		
2a	Balfeddock	Simon Hamill	Patrick Drew	H			8	D
2b	Balfeddock	Patrick Bourke	Patrick Drew	H			8	D
2c	Balfeddock	Catherine Roche	Patrick Drew	H			8	D
2d	Balfeddock	Rose Mullen	Patrick Drew	H			10	D
2e	Balfeddock	Mary Gogan	Patrick Drew	H			10	D
2f	Balfeddock	Patrick Berrill	Patrick Drew	H, O			10	D
3a	Balfeddock	Patrick Ginnitty	Patrick Drew	H, O, L	3	60	10	D
4a	Balfeddock	Patrick Berrill	Patrick Drew	H, O, L	5	90	60	P
5a	Balfeddock	Francis Maguire	C.A. Caldwell	HE H, O, L	152	3000	15	P
5b	Balfeddock	Michael Hall	Francis Maguire	H			5	D
6	Balfeddock	John Gorman	C.A. Caldwell	H, O, L	3	62	18	D
7a	Balfeddock	Bryan Heaney	C.A. Caldwell	H, O, L	4	62	18	D
7b	Balfeddock	Michael Bryan	Bryan Heaney	H, G			5	D
1a	Corballis	Laurence Gogarty	Reps Ths. McDermot	H, O, L	193	2240	100	P

No.	Townland	Occupier	Lessor	Description	Area	Land Value	Building Value	Status
3Aa	Corballis	Michael Moore	Reps Ths. McDermot	O, L	21	360	15	D
4a	Corballis	Patrick Gogan	Reps Ths. McDermot	H, O, L	34	430	15	D
5a	Corballis	Richard Walsh	Reps Ths. McDermot	H, O, L	40	492	13	D
5b	Corballis	Michael Mooney	Richard Walsh	H			5	D
6a	Corballis	Nicholas Fitzsimons	Reps Ths. McDermot	H, O, L	49	535	55	
8Aa	Corballis	William Pentony	St. George W. SMith	O, L	32	445	13	D
9a	Corballis	William Pentony	William Blackburne	H, O, L	47	725	60	P
2a	Crewbane	Thomas McGuire	C.A. Caldwell	HE H, O, L	178	3240	15	D
1a	Cruicerath	Peter Connolly	Arthur J. Netterville	HE H, O, L	102	1640	20	D
1b	Cruicerath	Board of Education	In fee	NS-H			13	D
1c	Cruicerath	Board of Education	Peter Connolly	NS-H			14	P
1d	Cruicerath			R.C. CH, Y	0.25		200	P
2a	Cruicerath	Thomas Bellew	Arthur J Netterville	HE H. O, L	35	640	20	P
3Aa	Cruicerath	John Mulvany	Arthur J Netterville	H, O L	29	405	25	P
1Aa	Donore	James Dogot	E.H. Coddington	H, O, L	15	245	35	P
1B	Donore	James Dogot	E.H. Coddington	L	19	220		
2a	Donore	Peter Connolly	E.H. Coddington	H, O, L	57	940	300	D
2b	Donore	Silvester McGinn	Peter Connolly	H			7	D
2c	Donore	Vacant	Peter Connolly	H			7	D
3a	Donore	Catherine Reid	E.H. Coddington	H, O, L	17	212	13	P
3b	Donore	Patrick Reid	E.H. Coddington	H, O, L		105	15	P
3c	Donore	Christopher Reid	Patrick Reid	H, SM G			7	D
3d	Donore	John Reid	Patrick Reid	H			5	D
3e	Donore	Mary Mulligan	Patrick Reid	H			6	D
3f	Donore	Michael Preston	Catherine Reid	H			6	D
4Aa	Donore	John Owens	E.H. Coddington	H, O, L	30	443	17	D
4Ab	Donore	Garrett Dinning	John Owens	H			5	D
4Ac	Donore	Richard Rooney	John Owens	H		5		D
4B	Donore	John Owens	E.H. Coddington	L	22	300		
5Aa	Donore	Patrick Moonan	E.H. Coddington	H, O, L	7	135	10	P

No.	Townland	Occupier	Lessor	Description	Area	Land Value	Building Value	Status
5Ba	Donore	Patrick Moonan	E.H. Coddington	O, L	17	265	10	
6a	Donore	Catherine Fullam	E.H. Coddington	H, O, L	95	1590	110	P
7a	Donore	Thomas Hammond	E.H. Coddington	HE H, O, L	36	710	20	D
7b	Donore	Peter Madden	Thomas Hammond	H			12	D
8a	Donore	James Monaghan	Eleanor King	H, O, L	94	1460	50	P
8b	Donore	Patrick Campbell	Eleanor King	H, G		1	5	D
8c	Donore	Margaret Conroy	Eleanor King	H, G		1	5	D
9Aa	Donore	Boyle Simpson	E.H. Coddington	H, O, L	20	285	30	P
9B	Donore	Boyle Simpson	E.H. Coddington	L	43	805		
10a	Donore	James Green	James Doolan	H			8	
1	Dowth	John Gorman	Edmond Wynne	L	8	130		
1a	Dowth	Michael Murphy	John Gorman	H, SM G			10	D
3a	Dowth	Margaret SMith	Edmond Wynne	H, O, L	12	217	13	D
4a	Dowth	John Ogle	Edmond Wynne	H, O, L	35	640	30	P
4b	Dowth	Anne Doonen	John Ogle	H			10	D
5a	Dowth	Nicholas SMith	Edmond Wynne	H, O, L	4	60	10	D
6	Dowth	Bryan Heaney	Edmond Wynne	L	18	320		
6a	Dowth	John Mathews	Bryan Heaney	H			5	D
6b	Dowth	Robert Moore	Bryan Heaney	H			5	D
6c	Dowth	Owen Johnston	Bryan Heaney	H			5	D
6d	Dowth	John Bock	Bryan Heaney	H			5	D
7a	Dowth	Michael Conway	Edmond Wynne	C H, O, L	24	440	15	D
7b	Dowth	George Puigh	Michael Conway	H			5	D
8Aa	Dowth	Mary Elcock	Edmond Wynne	H, O, L	22	430	50	D
8Ab	Dowth	Vacant	Mary Elcock	CM			20	D
8B	Dowth	Mary Elcock	Edmond Wynne	L	15	320		
9Aa	Dowth	James Farrell	Edmond Wynne	H, O, L	9	180	20	P
9B	Dowth	James Farrell	Edmond Wynne	L	6	120		
10a	Dowth	Thomas Devine	Edmond Wynne	H, O, L	11	230	30	P
11a	Dowth	James Drew	Edmond Wynne	H, L	13	260	10	D

No.	Townland	Occupier	Lessor	Description	Area	Land Value	Building Value	Status
11b	Dowth	Mary Gorman	James Drew	H			5	D
11c	Dowth	Eliza ReynoLs	James Drew	H			5	D
11d	Dowth	John Magrane	Netterville Trustees	H, SM G	1		10	D
11e	Dowth	Peter Heany	Netterville Trustees	H, O, G	1	10	15	D
12a	Dowth	Nicholas SMith Jnr	Edmond Wynne	H, L	2	25	5	D
13	Dowth	Michael Elcock	G.W. Monsell	L	14	220		D
14Aa	Dowth	G.W. Monsell	In fee	C H, O, L	52	850	50	P
14Ab	Dowth	James Elcock	G.W. Monsell	H, O, SM G			20	D
14Ac	Dowth	Michael Elcock	G.W. Monsell	H, O, G	1	10	30	D
14Ad	Dowth	Laurence Hey	G.W. Monsell	H			8	D
14Ae	Dowth	Michael Connor	G.W. Monsell	H, O, G	1	12	13	D
14B	Dowth	G.W. Monsell	In fee	L	5	90		
14C	Dowth	G.W. Monsell	In fee	L	6	130		
15	Dowth	Michael Connor	G.W. Monsell	L	15	300		
16	Dowth	Laurence Hey	G.W. Monsell	L	5	92		
17	Dowth	Michael Elcock	G.W. Monsell	L	12	230		
17a	Dowth	James Boylan	G.W. Monsell	H, O, G	0.25	5	15	D
18	Dowth	Mary Brien	G.W. Monsell	L	4	80		
17b	Dowth	Alice Elcock	Michael Elcock	H, O			10	D
19A	Dowth	Cornelius Brien	G.W. Monsell	L	4	80		
19B	Dowth	Cornelius Brien	G.W. Monsell	L	4	80		
20a	Dowth	Hugh Brien	G.W. Monsell	H, O, L	18	345	15	D
20b	Dowth	Mary Brien	G.W. Monsell	H, O, SM G			10	D
20c	Dowth	Cornelius Brien	G.W. Monsell	H, O, SM G			10	D
20d	Dowth	James Carolan	G.W. Monsell	H, G		2	10	D
21	Dowth	James Boylan	G.W. Monsell	L	1	10		
22a	Dowth	James McCormack	G.W. Monsell	C H, O, L	14	240	10	P
23a	Dowth	Richard Maguire	G.W. Monsell	HE H, O, L	275	5460	140	P
24	Dowth	Richard Maguire	G.W. Monsell	L	14	240		
25a	Dowth	William Rogers	William Wynne	H, O, L	53	1030	70	P

No.	Townland	Occupier	Lessor	Description	Area	Land Value	Building Value	Status
25b	Dowth	Vacant	William Rogers	H			10	D
26a	Dowth	Robert Bredon	in fee	HE H, L	105	2000	10	P
27	Dowth	Peter Heany	Netterville Trustees	L	1	25		
28A	Dowth	Thomas Devine	Netterville Trustees	L	3	50		
28B	Dowth	Thomas Devine	Netterville Trustees	L	39	660		
28Ba	Dowth	Charles Puigh	Peter McCullagh	H and G		4	6	D
28Bb	Dowth	Patrick Mathews	Charles Puigh	H			5	D
28Bc	Dowth	Mary Martin	Charles Puigh	H			5	D
28Bd	Dowth	-	-	GR	0.5	5		
29	Dowth	James Elcock	Netterville Trustees	L	17	320		
30	Dowth	James Boylan	Netterville Trustees	L	3	50		
31	Dowth	Richard Gradwell	Netterville Trustees	L	11	220		
2a	Dowth	James Stafford	Edmond Wynne	H, O, L	10	160	10	P
32a	Dowth	Trustees Netterville	In fee	W H, O, L	3	50	150	P
32b	Dowth	Comsrs. Nat. Education	Trustees Netterville	S-H			30	P
33	Dowth	James Elcock	William Rogers	L	12	240		
34	Dowth	Peter McCullough	Richard Maguire	L	4	60		
35a	Dowth	Richard Gradwell	In fee	H, O, ST H, GL, L	314	5600	700	P
35b	Dowth	Patrick Heany	Richard Gradwell	H			10	
35c	Dowth	Mary Roche	Richard Gradwell	H			1	
36	Dowth	James Drew	Ambrose Cox	L	1	3		
1a	Gilltown	Thomas Garrigan	Andrew Colwell	H, O, L	133	1850	90	P
1b	Gilltown	James Rooney	Thomas Garrigan	H, O, G	1	17	13	P
6	Gilltown	Joseph Boylan	Andrew Colwell	L	17	200		
1a	Glebe	Peter McCullagh	Rev. Edward Batty	L	31	600		
1a	Knowth	Patrick Sullivan	C.A.Caldwell	H, O, L	118	2250	110	P
1b	Knowth	Owen Farrell	Patrick Sullivan	H, G		3	12	D
1c	Knowth	Thomas Russell	Patrick Sullivan	H			10	D
2a	Knowth	Anne Maguire	C.A. Caldwell	H, O, L	191	3840	120	P
1	Littlegrange	Peter Roache	James Tyrell	H, O, L.	90	1600	100	P

No.	Townland	Occupier	Lessor	Description	Area	Land Value	Building Value	Status
2	Littlegrange	Peter Roache	James Tyrell	L	49	960		
2a	Littlegrange	Vacant	Peter Roche	H			10	D
3a	Littlegrange	James White	Nicholas Tierney	H, L	3	60	5	D
4A	Littlegrange	Thomas Cheavers	Nicholas Tierney	L	5	100		
4Ba	Littlegrange	Thomas Cheavers	Nicholas Tierney	H, O, G		5	15	D
5a	Littlegrange	Patrick Stafford	Nicholas Tierney	H, O, L	10	220	30	D
6	Littlegrange	Patrick Stafford	Nicholas Tierney	L	12	230		
7a	Littlegrange	Nicholas stafford	Nicholas Tierney	H, L	14	250	10	D
8a	Littlegrange	Patrick Marron	Ambrose Cox	H, O, L	167	3530	70	P
8b	Littlegrange	Patrick Lynes	Patrick Marron	H, G		3	12	P
8c	Littlegrange	Thomas McGrane	Patrick Marron	H, G	0	3	12	P
8d	Littlegrange	Owen Matthews	Patrick Marron	H			10	D
7a	Monknewtown	Vacant	Earl of Sheffield	H			5	D
7b	Monknewtown	Henry White	Earl of Sheffield	H, O			10	D
8	Monknewtown	Patrick Moonan	Earl of Sheffield	L	34	480		
9a	Monknewtown	Thomas Warde	Earl of Sheffield	H, O, L	59	950	50	P
10Aa	Monknewtown	Patrick Drew	Earl of Sheffield	WO H, O, L	58	1120	5	D
10Ab	Monknewtown	Patrick Drew	Earl of Sheffield	R.C. CH			200	P
10Ac	Monknewtown	Patrick Drew	Earl of Sheffield	PA S, H, MD			30	P
10Ba	Monknewtown	Patrick Drew	Earl of Sheffield	H, O, L	92	2060	105	P
10Bb	Monknewtown	James Hanly	Patrick Drew	H			10	D
10Bc	Monknewtown	Bryan Cunningham	Patrick Drew	H			10	D
11a	Monknewtown	Richard R. Hill	William Rogers	H, O, CFM, SR, L	9	120	2680	P
11b	Monknewtown	Richard R. Hill	Earl of Sheffield	GR	0.25	2		
12a	Monknewtown	John Reynolds	Patrick Drew	H, O, L	8	170	20	D
12b	Monknewtown	Matthew SMith	John ReynoLs	H			8	D
13A	Monknewtown	James Drew	Earl of Sheffield	L	90	2000		
13Ba	Monknewtown	James Drew	Earl of Sheffield	H, O, GL, L.	181	3060	300	P
13Bb	Monknewtown	John Gorman	James Drew	H			10	D
14a	Monknewtown	ArchiboL Malcolm	Earl of Sheffield	H, O, L	104	1530	70	D

No.	Townland	Occupier	Lessor	Description	Area	Land Value	Building Value	Status
14b	Monknewtown	Vacant	ArchiboL Malcolm	H			7	D
14c	Monknewtown	Michael Leech	ArchiboL Malcolm	H			5	D
14d	Monknewtown	Catherine McDonnell	ArchiboL Malcolm	H			5	D
14e	Monknewtown	Hugh McGuinness	ArchiboL Malcolm	H			5	D
14f	Monknewtown	John Flynn	ArchiboL Malcolm	H			5	D
14g	Monknewtown	Thomas Taffe	ArchiboL Malcolm	H, G	0.25	8	7	D
17B	Monknewtown	Margaret Curry	Earl of Sheffield	L	9	115		
18A	Monknewtown	Thomas Curry	Earl of Sheffield	L	8	160		
18Ba	Monknewtown	Thomas Curry	Earl of Sheffield	H, O, L	54	640	60	
19Aa	Monknewtown	Nicholas Curry	Earl of Sheffield	CH, O, L	30	420	15	
19B	Monknewtown	Nicholas Curry	Earl of Sheffield	L	12	155		
1Aa	Newgrange	Thomas Maguire	C.A. Caldwell	H, O, L.	193	4260	200	P
1B	Newgrange	Thomas Maguire	C.A. Caldwell	L	18	240		
1Bb	Newgrange	Patrick Reilly	Thomas Maguire	H			5	D
2a	Newgrange	Richard Kirk	C.A. Caldwell	H, O, HE H, L	197	4000	160	P
3	Newgrange	Francis Maguire	C.A. Caldwell	L	8	120		
3a	Newgrange	Patrick Fitzpatrick	Francis Maguire	H, SM G			10	D
4a	Newgrange	Francis Berrill	C.A. Caldwell	H, O, L	9	160	20	D
5a	Newgrange	Richard Maguire	C.A. Caldwell	H, O, L	325	8000	400	D
5b	Newgrange	Patrick Fowler	Boyne Navigation	L H			20	P
6	Newgrange	Patrick Fowler	Boyne Navigation	L (marsh)	2	5		
7	Newgrange	Boyne Navigation Co.	In fee	Canal	6			
1Aa	Oldbridge	H.B. Coddington	In fee	H, O, L	586	13040	1300	P
1Ab	Oldbridge	B.T. Balfour	H.B. Coddington	H, O,			700	P
1Ac	Oldbridge	H.B.Coddington	In Fee	PL H, O,			75	P
1Ad	Oldbridge	Thomas McCullagh	H.B. Coddington	H			16	P
1Ae	Oldbridge	Nicholas Craven	H.B. Coddington	H			16	P
1Af	Oldbridge	Laurence McDonnell	H.B. Coddington	H			16	P
1Ag	Oldbridge	Mary Hallahan	H.B. Coddington	H, G		3	17	P
1Ah	Oldbridge	H.B. Coddington	In fee	WR H, O.G		5	25	P

No.	Townland	Occupier	Lessor	Description	Area	Land Value	Building Value	Status
1Ai	Oldbridge	Thomas Marry	H.B. Coddington	H		25		P
1Aj	Oldbridge	John Magrane	H.B. Coddington	H, O, G		3	13	P
1Ak	Oldbridge	Thomas McDonnell	H.B. Coddington	H, O, G		3	20	P
1Al	Oldbridge	Francis White	H.B. Coddington	H, O, G		3	20	P
1Am	Oldbridge	Patrick Murphy	H.B. Coddington	H, O, G		3	20	P
1An	Oldbridge	John Reilly	H.B. Coddington	H			25	P
1Ao	Oldbridge	Patrick Closkey	H.B. Coddington	H			20	P
1B	Oldbridge	H.B. Coddington	In fee	L	15	348		
1C	Oldbridge	H.B. Coddington	In fee	L	2	12		
2	Oldbridge	B.T. Balfour	H.B. Coddington	G	4	240		
3a	Oldbridge	John Murray	H.B. Coddington	Q	1	160		
3a	Oldbridge	John Murray	H.B. Coddington	L	2	45		
4a	Oldbridge	Matthew Clarke	H.B. Coddington	H, O, F, L	8	190	20	P
5a	Oldbridge	John Mullins	H.B. Coddington	H, O, G	1	20	22	P
5b	Oldbridge	William Reynolds	H.B. Coddington	H, O, G	1	28	22	P
5c	Oldbridge	James Nugent	H.B. Coddington	H, O, G	1	20	20	P
5d	Oldbridge	William Malone	H.B. Coddington	H, O, G	2	55	45	D
5e	Oldbridge	Thomas Magennis	H.B. Coddington	H, G	1	26	16	D
5f	Oldbridge	Owen Magrane	H.B. Coddington	H, O, G	1	26	16	D
5g	Oldbridge	James Lynch	H.B. Coddington	H, O, G	1	24	16	D
5h	Oldbridge	Thomas McCullagh	H.B. Coddington	G	0.25	12		
5i	Oldbridge	Laurence McDonnell	H.B. Coddington	G	0.25	12		
6a	Oldbridge	James Kelly	H.B. Coddington	H, G	1	62	28	D
6b	Oldbridge	Thomas Brien	H.B. Coddington	H			15	D
6c	Oldbridge	Patrick McNally	H.B. Coddington	H			15	D
8a	Oldbridge	Boyne Navigation Co.	In fee	L H, Canal	20		50	P
6a	Platin	John Brian	Michael Doherty	H			10	D
9a	Platin	Patrick Greene	Boyle Simpson	H, O, L	5	110	15	D
11a	Platin	Michael Gibney	Frederick Medcalf	H, L	1	38	12	P
11b	Platin	Henry Smith	Michael Gibney	H			8	P

No.	Townland	Occupier	Lessor	Description	Area	Land Value	Building Value	Status
11c	Platin	Vacant	Michael Gibney	H			6	P
11f	Platin	Michael Cawlin	Michael Cawlin	H, Os			12	P
11g	Platin	Francis Markey	Michael Gibney	H, G			8	P
12a	Platin	John McKeon	Frederick Medcalf	H, L	1	36	12	D
12b	Platin	Michael Doherty	Frederick Medcalf	H, G			12	D
12c	Platin	Margaret McCormick	John McKeon	H			5	D
12d	Platin	Patrick Birle	John McKeon	H			5	D
13a	Platin	Thomas Gibney	Frederick Medcalf	H, L	1	36	12	P
13b	Platin	Rose Birle	Thomas Gibney	H			8	P
14a	Platin	William Gibney	Frederick Medcalf	H, O, L	2	43	12	D
16Aa	Platin	Thomas White	Edward Atkinson	HE H	10	165	15	P
1a	Proudfootstown	James Drew	Ambrose Cox	H.O, CM, L.	43	800	600	P
1b	Proudfootstown	James Drew	Richard Gradwell	L	1	20		D
1c	Proudfootstown	Richard Drew	James Drew	H			14	D
1d	Proudfootstown	Michael Pentony	James Drew	H			10	D
1e	Proudfootstown	Bryan Gorman	James Drew	H			10	D
2	Proudfootstown	Richard Gradwell	In fee	L	40	740		
3a	Proudfootstown	Matthew Crinnion	Richard Gradwell	H, O, L	60	1210	40	P
4	Proudfootstown	Thomas Drew	Richard Gradwell	L	17	360		
5a	Proudfootstown	Michael Conway	Richard Gradwell	H, O, L	42	880	30	P
5b	Proudfootstown	Thomas Drew	Richard Gradwell	H, O, G		5	15	D
5c	Proudfootstown	Anne Gerratty	Michael Conway	H			8	D
5d	Proudfootstown	James Bristle	Michael Conway	H			8	D
6a	Proudfootstown	Barthlomew Halpin	Richard Gradwell	H, L	1	60	10	D
31a	Rathmullen	Vacant	Robert Cathcart	H, O, L			7	D
32a	Rathmullen	John Duff	Robert Cathcart	H, G			90	P
1a	Redmountain	Mary Sampson	Henry Kemmis	H, Os, L	6	75	10	P
2a	Redmountain	Thomas Sampson	Henry Kemmis	H, Os, L	6	80	10	P
3a	Redmountain	Patrick Gogan	Henry Kemmis	H, Os, L	87	1160	60	P
3b	Redmountain	Patrick Mooney	Patrick Gogan	H			8	D

No.	Townland	Occupier	Lessor	Description	Area	Land Value	Building Value	Status
3c	Redmountain	Patrick Barnett	Patrick Gogan	H			7	D
1a	Rossnaree	Andrew Tiernan	Rev. Charles Osborne	Os, L	233	4395	85	P
1b	Rossnaree	John Geoghegan	Andrew Tiernan	H			10	P
1c	Rossnaree	Charles Moran	Andrew Tiernan	H			10	P
1d	Rossnaree	Vacant	Andrew Tiernan	H			14	P
1e	Rossnaree	Luke Brodigan	Andrew Tiernan	H			14	P
2a	Rossnaree	Rev. Charles Osborne	Marquis of Drogheda	Os, L	217	387	105	P
3Aa	Rossnaree	Peter Tiernan	Rev. Charles Osborne	H, O, L	5	100	130	P
3B	Rossnaree	Peter Tiernan	Rev. Charles Osborne	L	3	45		
3Bab	Rossnaree	William Loughran	Rev. Charles Osborne	H, G		1	9	P
4Aa	Rossnaree	Michael Drew	Rev. Charles Osborne	H, O, L	25	360	60	P
4B	Rossnaree	Michael Drew	Rev. Charles Osborne	L	9	120		
5Aa	Rossnaree	James Swift	Rev. Charles Osborne	H, O, L	8	150	80	P
5B	Rossnaree	James Swift	Rev. Charles Osborne	L	9	170		
6	Rossnaree	James Swift	Rev. Charles Osborne	L	5	85		
7a	Rossnaree	Patrick Garagan	Rev. Charles Osborne	H, O, L	85	1165	75	P
7b	Rossnaree	-	-	R.C. CH, Y	1		200	P
8a	Rossnaree	Walter Johnston	Rev. Charles Osborne	H, O, CM, K, L	41	570	400	P
8b	Rossnaree	Margaret Brodigan	Walter Johnston	H, SM G, O, L			7	D
9Aa	Rossnaree	Thomas Johnston	Rev. Charles Osborne	Os, L	24	330	105	P
9B	Rossnaree	Thomas Johnston	Rev. Charles Osborne	L	2	5		
10a	Rossnaree	Hugh Morgan	Boyne Navigation	L-H, O, Canal	31	20	25	P
11	Rossnaree	Boyne Navigation	In Fee	Canal	2			
1A	Roughgrange	Michael Moore	William Brabazon	L	2	33		
1B	Roughgrange	Michael Moore	William Brabazon	L	2	28		
1C	Roughgrange	Michael Moore	William Brabazon	L	3	26		
1D	Roughgrange	Michael Moore	William Brabazon	L	6	15		
1E	Roughgrange	Michael Moore	William Brabazon	L	2	33		
2A	Roughgrange	Michael Moore	Reps. T. McDermot	L	37	465		
2Ba	Roughgrange	Michael Moore	Reps. T. McDermot	H, Os, L	118	1345	50	P

No.	Townland	Occupier	Lessor	Description	Area	Land Value	Building Value	Status
2Bb	Roughgrange	John McCormack	Michael Moore	H			10	D
2Bc	Roughgrange	James Donegan	Michael Moore	H			7	D
3A	Roughgrange	Michael Moore	William Brabazon	L	0.25	5		
3AB	Roughgrange	N. Madden, P. McCullagh	Reps. T. McDermot	L	176	2265		
3Ba	Roughgrange	N. Madden, P. McCullagh	Reps. T. McDermot	H, O			105	P
3Bb	Roughgrange	John Murray	Peter McCullagh	H, O, G	0.25	5	10	D
3Bc	Roughgrange	Matthew Monaghan	Peter McCullagh	H			8	D
3Bd	Roughgrange	Vacant		H			7	D
3Be	Roughgrange	Patrick Carlon	Peter McCullagh	H			7	D
4a	Roughgrange	Michael Boyle	Reps. T. McDermot	H, Os, L	90	1150	55	D
5	Roughgrange	Michael Boyle	Reps. T. McDermot	L	15	195		
6a	Roughgrange	Michael Gogan	Reps. T. McDermot	H, Os, L	17	180	55	D
7	Roughgrange	Laurence Gogarty	Reps. T. McDermot	L	42	550		
8A	Roughgrange	William Norris	Reps. T. McDermot	FI		160		
8Aa	Roughgrange	William Norris	Reps. T. McDermot	H, O, CM, L	8	145	200	P
8B	Roughgrange	William Norris	Reps. T. McDermot	L	30	545		
9a	Roughgrange	James McDonnell	Reps. T. McDermot	H, O, L	64	870	40	P
-	Roughgrange	William Norris	Reps. T. McDermot	GR	0.25	5		
10a	Roughgrange	Patrick Gogan	Reps. T. McDermot	H, L	84	1065	25	D
11	Roughgrange	Richard Moore	Reps. T. McDermot	L	30	410		
11a	Roughgrange	Thomas Walsh	Richard Moore	H			6	D
11b	Roughgrange	John Devine	Richard Moore	H			5	D
12a	Roughgrange	Peter Moore	Reps. T. McDermot	H, O, L	8	140	30	
13	Roughgrange	Reps. T. McDermot	In Fee	R. Boyne	18			
14	Roughgrange	Boyne Navigation	In Fee	Canal	10	15		
1a	Sheephouse	Thomas Hammond	E.H. Coddington	H, O, L	8	185	310	P
1b	Sheephouse	Patrick Bellew	Thomas Hammond	H			11	
1c	Sheephouse	Michael Tiernan	Thomas Hammond	H			10	D
1d	Sheephouse	William Finegan	Thomas Hammond	H, G			15	
2a	Sheephouse	Thomas Hammond	W.S. Crawford	Q	1			

No.	Townland	Occupier	Lessor	Description	Area	Land Value	Building Value	Status
2b	Sheephouse	Thomas Hammond	E.H. Coddington	CO H			20	P
3a	Sheephouse	Henry Coddington	E.H. Coddington	Os, L	91	79	80	P
4	Sheephouse	James Dogat	E.H. Coddington	L	81	1240		
5a	Sheephouse	Hugh Connell	E.H. Coddington	H, O, L	70	152	200	P
6b	Sheephouse	William Moran	William Malone	H			12	D
6c	Sheephouse	William Malone	E.H. Coddington	PL H			12	P
6d	Sheephouse	-	E.H. Coddington	WH, GR	0.5	10	10	P
1Aa	Staleen	Richard Moore	W.S. Crawford	H, Os, L	15	180	20	P
1B	Staleen	Richard Moore	W.S. Crawford	L	9	85		
1Ba	Staleen	Patrick Barron	W.S. Crawford	H, G		4	8	D
2a	Staleen	Patrick Boyle	W.S. Crawford	H, O, L	27	320	15	D
3a	Staleen	Patrick Kirwan	W.S. Crawford	H, O, L	9	120	10	D
4a	Staleen	Catherine Barron	W.S. Crawford	H, Os, L	65	775	30	P
5a	Staleen	John C. Sheiler	W.S. Crawford	H, Os, L	40	545	60	P
6a	Staleen	William Bellew	W.S. Crawford	H, Os, L	29	390	40	D
7Aa	Staleen	John Moore	W.S. Crawford	H, O, L	79	955	40	P
7Ab	Staleen	John Crogan	John Moore	H		7	7	D
7B	Staleen	John Moore	W.S. Crawford	L	2	20		
7Ba	Staleen	Henry Kirwan	W.S. Crawford	H		10	10	D
7Bb	Staleen	Bridget Sheeran	W.S. Crawford	H		5		D
8A	Staleen	Patrick Bellew	W.S. Crawford	L	2	23		
8Ba	Staleen	Patrick Bellew	W.S. Crawford	H, O, L	5	60		D
9Aa	Staleen	James Reilly	W.S. Crawford	C H, L	4	50	10	D
9B	Staleen	James Reilly	W.S. Crawford	L	13	195		
-	Staleen	Peter McCullagh	-	FI		150		
10	Staleen	Christopher Callaghan	W.S. Crawford	L	12	135		
11a	Staleen	Patrick Callan	W.S. Crawford	H, O, L	10	140	15	D
12a	Staleen	Margaret Byrne	W.S. Crawford	H, O, L	4	60	10	D
13a	Staleen	James Murray	W.S. Crawford	H, O, L	3	35	15	P
14	Staleen	Mary Hammil	W.S. Crawford	L	3	35		

No.	Townland	Occupier	Lessor	Description	Area	Land Value	Building Value	Status
15a	Staleen	Peter Quinn	W.S. Crawford	H, O, L	4	55	10	P
15b	Staleen	Mary Hammill	W.S. Crawford	H			10	P
16	Staleen	Eliza Murphy	W.S. Crawford	L	23	520		
16a	Staleen	John Moore	Eliza Murphy	H			13	D
17Aa	Staleen	James McEntaggart	W.S. Crawford	H, O, L	3	47	15	D
17Ab	Staleen	Matthew Clarke	James McEntaggart	H, F			25	D
17Ac	Staleen	Charles McGinn	James McEntaggart	H			7	D
17Ad	Staleen	Thomas Dowdall	Charles McGinn	H, G		1	7	D
17Ae	Staleen	Andrew Barry	Thomas Dagot	H		6		
17Af	Staleen	James Fay	Thomas Dagot	H		10		D
17Ag	Staleen	John Green	Thomas Dagot	H			12	P
17Ah	Staleen	Richard Magenniss	Julia Moore	H			7	D
17Ai	Staleen	Eliza Burns	James McEntaggart	H, G		6	7	D
17Aj	Staleen	Judith Moore	Eliza Burns	H			8	D
17Ak	Staleen	James Reilly	James McEntaggart	H, O, G		2	25	D
17Al	Staleen	John Campbell	James McEntaggart	H, G		2	10	D
17Am	Staleen	Bryan Donnell	James McEntaggart	H, G		6	9	D
17An	Staleen	George Gill	Bryan Donnelly	H			6	D
17Ao	Staleen	James McKeon	Bryan Donnelly	H			6	D
17B	Staleen	James McEntaggart	W.S. Crawford	L	5	63		
18a	Staleen	Christopher Waters	W.S. Crawford	H, L	2	20	6	
18b	Staleen	Patrick Bellew	W.S. Crawford	H, O			10	P
18c	Staleen	Margaret Stairs	Patrick Bellew	H		6		
19a	Staleen	Mary Hall	W.S. Crawford	H, O, L	5	73	12	D
20	Staleen	Patrick Bellew	W.S. Crawford	L	2	22		
21a	Staleen	Jane Murray	W.S. Crawford	H, O, L	9	185	20	D
22a	Staleen	Valentine Clinch	W.S. Crawford	H, Os, L	10	198	17	P
23a	Staleen	James Martin	W.S. Crawford	H, L	5	70	15	D
23b	Staleen	William Connolly	James Martin	H			6	D
23c	Staleen	Thomas Martin	James Martin	H			8	D

No.	Townland	Occupier	Lessor	Description	Area	Land Value	Building Value	Status
24Aa	Staleen	Laurence Bellew	W.S. Crawford	H, Os, L	1	10	30	P
24B	Staleen	Laurence Bellew	W.S. Crawford	L	4	45		
25Aa	Staleen	Thomas Bellew	W.S. Crawford	H, Os, L	30	525	80	D
25Ab	Staleen	Margaret Corrigan	W.S. Crawford	H, G	0.25	11	13	D
25B	Staleen	Thomas Bellew	W.S. Crawford	L	34	505		
25Ba	Staleen	Vacant	Thomas Bellew	H, Os			30	P
25C	Staleen	Thomas Bellew	W.S. Crawford	L	49	675		
25D	Staleen	Thomas Bellew	W.S. Crawford	L	11	245		
26a	Staleen	John Bellew	W.S. Crawford	H, L	7	100	15	P
27a	Staleen	Thomas Bellew Jnr	W.S. Crawford	H, Os, L	9	125	25	P
28a	Staleen	James McCann	W.S. Crawford	H, Os, L	81	1140	700	P
29	Staleen	W.S. Crawford	In fee	L	42	775		
29a	Staleen	Vacant	W.S. Crawford	H.Os			10	D
30Aa	Staleen	Peter McCullagh	W.S. Crawford	H, O, K, L	41	730	90	P
30Ab	Staleen	Mary Dagot	Peter McCullagh	H			11	D
30Ac	Staleen	Patrick Johnston	Peter McCullagh	H, G		2	8	D
30Ad	Staleen	John Johnston	Peter McCullagh	H			13	D
30Ba	Staleen	Peter McCullagh	W.S. Crawford	CM, L	2	5	120	P
31	Staleen	Peter McCullagh	W.S. Crawford	L	45	685		
31a	Staleen	Vacant	Peter McCullagh	H, Os		90		
32	Staleen	Patrick & Catherine Reid	W.S. Crawford	L	15	140		
33a	Staleen	Boyne Navigation	In Fee	LH	9	15	30	P

Table 9.1

Farm developments 1950-1990

File Number	Name	Townland	Works	Scheme	Year	Details
3083/2	Crinion, D.	Balfeddock	Building	Farm Modernisation	1981	Bulk tank
3083/1	Crinion, D.	Balfeddock	Building	Farm Modernisation	1987	Concrete farmyard
17a/148/1	Crinion, D.	Balfeddock	Building	Farm Improvement	1989	Slatted house
R17a/2553	Durnin, R.	Balfeddock	Fences/Old house	Land Improvement	1961	
R/17c/2487	Halpin, P.	Balfeddock	Drainage/Reclamation	Land Project	1973	
746	Marry, F.	Balfeddock	Drainage	Land Project	1953	
2531/6	Marry, J..F.	Balfeddock	Buildings	Farm Modernisation	1985	Cattle crush, storage base, silage wall
2531/2	Marry, J..F.	Balfeddock	Buildings	Farm Modernisation	1979	Farmyard
2531/1	Marry, J.F.	Balfeddock	Buildings	Farm Modernisation	1979	Farmyard
2531/4	Marry, J.F.	Balfeddock	Buildings	Farm Modernisation	1985	Lean to
R/17a/1657/4564	Monahan, J.	Balfeddock	Drainage/Trees	Land Improvement	1968	
R/17a/1657	Monahan, J.	Balfeddock	Drainage/Reclamation	Land Improvement	1970	
R/17a/323	O, Reilly, J.	Balfeddock	Drainage	Land Project	1970	
505/2	Reilly, J.	Balfeddock	Buildings	Farm Modernisation	1976	
505/5	Reilly, J.	Balfeddock	Buildings	Farm Modernisation	1976	
504/	Reilly, J.	Balfeddock	Drainage	Farm Modernisation	1982	
505/6	Reilly, J.	Balfeddock	Drainage	Farm Modernisation	1982	
505/7	Reilly, J.	Balfeddock	Drainage	Farm Modernisation	1982	
505/4	Reilly, J.	Balfeddock	Drainage	Farm Modernisation	1982	
505/2	Reilly, J.	Balfeddock	Drainage	Farm Modernisation	1986	
505/8	Reilly, J.	Balfeddock	Drainage	Farm Modernisation	1986	
707	Hand, P	Balfeddock/Dowth	Buildings	Farm Modernisation	1976	
707/8	Hand, P	Balfeddock/Dowth	Drainage	Farm Modernisation	1979	
707/6	Hand, P	Balfeddock/Dowth	Drainage	Farm Modernisation	1982	
336 (662)	Blake G	Crewbane	Deferred	Land Project	1952	
98 (56E)	Boylan, P	Crewbane	Drainage	Land Project	1950	
R/17d/3400	Roche, K	Crewbane	Drainage/Fences	Land Improvement	1973	
R/24/362	Tallon, O	Crewbane	Drainage	Land Improvement	1974	
623 (949)	Ward, P	Crewbane	Td. Boundary Reclamation	Land Project	1953	
1162(1488)	Wogan, K	Crewbane	Drainage	Land Project	1955	
2742	Cameron, A	Dowth	Drainage	Land Project	1967	

File Number	Name	Townland	Works	Scheme	Year	Details
17a/514	Downey, P	Dowth	Buildings (cancelled)	Farm Improvement	?	
1794	Hand, J.	Dowth	Buildings (cancelled)	Farm Modernisation	1984	
R/17a/970	Hand, M	Dowth	Drainage/Trees	Land Improvement	1973	
17a/474	Hand, P	Dowth	Buildings	Farm Improvement	1990	Tank, slatted house
599 (925)	Hand, P	Dowth	Depression Fill	Land Project	1952	
R/17a/599	Hand, P	Dowth	Drainage/Fences	Land Project	1975	
1278(1604)	McDonnell, I	Dowth	Drainage	Land Project	1955	
17/157	McDonnell, O	Dowth	Buildings	Farm Modernisation	1979	Cattle crush
17/157	McDonnell, O	Dowth	Buildings	Farm Modernisation	1977	Farm machinery house
17/157	McDonnell, O	Dowth	Buildings	Farm Modernisation	1975	General house, milking unit extension
3369	McDonnell, O	Dowth	Rejected	Land Project	1973	
2424	Mullen, K	Dowth	Drainage	Land Project	1962	
2832/1	Mullen, R	Dowth	Buildings	Farm Modernisation	1981	Loose house, effluent tank
R17c/3368/6832	Reilly, J.	Dowth	Orchard Reclamation	Land Improvement	1973	
658/3	Reilly, P	Dowth	Drainage	Farm Modernisation	1978	
658/1	Reilly, P	Dowth	Buildings	Farm Modernisation	1980	
658/2	Reilly, P	Dowth	Buildings	Farm Modernisation	1980	
17/338	Burns, E	Knowth	Buildings	Farm Modernisation	1976	Cow kennels, farmyard equipment/machinery, manure-pit
RA/24/380	Cassidy, T	Knowth	?	Land Project	1968	
R/17c/2470	Cassidy, TP	Knowth	Drainage/Fences	Land Improvement	1962	
R/17a/1203	Clarke, E	Knowth	?	Land Project	1964	
2663	Clarke, T	Knowth	?	Land Project	1966	
362 (187E)	Hoey, J.	Knowth	Section A	Land Project	1950	
17b/74/A219	McGrane, J.	Knowth	Buildings	Farm Improvement	1989	Loose house
17a/58	McGrane, J.	Knowth	Buildings	Farm Improvement	1989	Slurry tank
2721	Robinson, HG	Knowth	?	Land Project	1966	
R/17a/2385	Robinson, T	Knowth	?	Land Project	1966	
5411	Robinson, T	Knowth	?	Land Project	1970	
3048	Walsh, A	Knowth	?	Land Project	1969	
17a/161	Clarke, J.	Monknewtown	Building	Farm Improvement	1990	Tank, slatted house
R17c/2819	Clarke, W	Monknewtown	?	Land Project	1974	
3268	Delany, P	Monknewtown	?	Land Project	1972	
R/17a/700	Delany, P	Monknewtown	?	Land Project	1972	

File Number	Name	Townland	Works	Scheme	Year	Details
615 (941)	Downey, E	Monknewtown	?	Land Project	1952	
2727	Downey, P	Monknewtown	?	Land Project	1966	
	Downey, P	Monknewtown	Drainage	Farm Modernisation	1976	
858/4	Downey, P	Monknewtown	Drainage	Farm Modernisation	1982	
1374(1700)	Hoey, C	Monknewtown	?	Land Project	1956	
641 (967)	Lane, M	Monknewtown	?	Land Project	1953	
1416(1742)	Murphy, M	Monknewtown	Section A	Land Project	1962	
R/17a/2602	Russel, T	Monknewtown	Drainage/Fences	Land Project	1973	
17a/281	Russell, D	Monknewtown	Building	Farm Improvement	1990	Convert cub. house, slatted house
17a/389/2	Stewart, T	Monknewtown	Building	Farm Improvement	1990	Slatted house
1155(1481)	Stewart, T	Monknewtown	Field Boundary	Land Project	1955	
706/4	Stewart, T	Monknewtown	Building	Farm Modernisation	1978	
706/3	Stewart, T	Monknewtown	Building	Farm Modernisation	1980	
706/5	Stewart, T	Monknewtown	Drainage/Fences	Farm Modernisation	1980	
706/7	Stewart, T	Monknewtown	Building	Farm Modernisation	1981	
706/6	Stewart, T	Monknewtown	Building	Farm Modernisation	1981	
793 (1119)	Ward, T	Monknewtown	Drainage	Land Project	1953	
1318/3	Clarke, J.	Monknewtown	Building	Farm Modernisation	1980	Milking parlour, dairy grain loft, effluent tank, concrete yard
1318/1	Clarke, J.	Monknewtown	Building	Farm Modernisation	1978	Silo, loose house w/cub, slurry tank, concrete yard
1318/7	Clarke, J.	Monknewtown	Building	Farm Modernisation	1985	Livestock house, concrete yard
1318/6	Clarke, J.	Monknewtown	Building	Farm Modernisation	1980	
262 (141 E)	Burke, A	Newgrange	Deferred	Land Project	1950	
2592	Burke, M	Newgrange	Drainage	Land Project	1965	
17/337	Cole, A	Newgrange	Building	Farm Modernisation	1976	Silo wall, 34 cubicles, dungstead, bulk tank
17/337	Cole, A	Newgrange	Building	Farm Modernisation	1974	Silo wall
17/337	Cole, A	Newgrange	Building	Farm Modernisation	1976	Farmyard, cow kennels, machinery
1276(1602)	Downey, G	Newgrange	?	Land Project	1955	
1051(1377)	Grimes, A	Newgrange	?	Land Project	1954	
802 (1128)	Grimes, M	Newgrange	?	Land Project	1953	
RA/17a/1746	Heston, P	Newgrange	Drainage/Reclamation	Land Project	1964	
293 (155E)	McManamon, A	Newgrange	Drainage/Reclamation	Land Project	1973	
168 (91E)	Munnelly, M	Newgrange	Section B	Land Project	1950	

File Number	Name	Townland	Works	Scheme	Year	Details
17/179//1	Redhouse, W	Newgrange	Building	Farm Modernisation	1976	silo, loose house, farmyard
17/179/4	Redhouse, W	Newgrange	Building	Farm Modernisation	1980	Silos (3), loose house/s, farmyard, effluent tank
11117/179/6	Redhouse, W	Newgrange	Building	Farm Modernisation	1978	Silo conversion, roadway, trough
17/179/3	Redhouse, W	Newgrange	Building	Farm Modernisation	1978	General house construction
17/179/2	Redhouse, W	Newgrange	Building	Farm Modernisation	1977	Slurry tank
RA/24/84	Reilly, J.	Newgrange	?	Land Project	1950	
84 (45 E)	Reilly, J.	Newgrange	Drainage	Land Project	1950	
RA/24/84	Reilly, J.	Newgrange	Drainage	Land Project	1962	
855	Reilly, J.	Newgrange	Drainage/Reclamation	Farm Modernisation	1977	
R/17a/2602	Russell, T	Newgrange	Drainage	Land Project	1971	
2983/3	Marry, D	Proudfootstown	Reclamation	Farm Modernisation	?	
2707	Marry, D	Proudfootstown	?	Land Project	1966	
2983/2	Marry, D	Proudfootstown	Buildings/Reclamation/Fences		Farm Modernisation	1981
747/1/17/2983	Marry, DJ	Proudfootstown	Buildings (piggery)	Farm Modernisation	1976	
747/2	Marry, DJ	Proudfootstown	Buildings (piggery)	Farm Modernisation	1977	
80 (492)	Moore, J.	Redmountain	Stone Drains	Land Project	1951	
2719	Devane, R	Rossnaree	Drainage/Fences	Farm Modernisation	1980	
1058(1384)	Law, R	Rossnaree	?	Land Project	1954	
3140	McDermot	Rossnaree	?	Land Project	1971	
R17c/3140	McDermot, J.	Rossnaree	?	Land Project	1972	
17/339	Murphy, J.	Rossnaree	Buildings	Farm Modernisation	1976	Dairy parlour, loose house, yard
1258	Green, J.	Roughgrange	Buildings	Farm Modernisation	1978	Livestock house, farmyard
827 (388)	McDonnell, J.	Roughgrange	Section A	Land Project	1951	
3250	Mcdonnell, J.	Roughgrange	?	Land Project	1973	
1690/2	McDonnell, J.	Roughgrange	Drainage/Sprays	Farm Modernisation	1977	
1690/5	McDonnell, J.	Roughgrange	Drainage	Farm Modernisation	1984	
R/17a/2602	Russel, T	Sheepgrange	Drainage/Reclamation	Land Project	1965	
1059(1385)	Russell, E	Sheepgrange	?	Land Project	1954	
749 (1075)	Buisson, TG	Staleen	Section A	Land Project	1953	
2935	Conrad, AR	Staleen	?	Land Project	1968	
R/17a/1968	Everard, P	Staleen	?	Land Project	1967	
1779/1	Lawlor, MP	Staleen	Buildings	Farm Modernisation	1978	Machinery house, concrete yard
1064(1390)	Moore, P	Staleen	?	Land Project	1954	
RA/17a/829	Moore, R	Staleen	Drainage	Land Project	1953	
829 (1155)	Moore, R	Staleen	Drainage	Land Project	1954	