The Making of the Irish Landscape

KATIE YOUNG

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The Making of the Irish Landscape textbook draws inspiration from *British Columbia in a Global Context*'s style, format and approach to case studies; the material in this customized textbook is specific to the Irish landscape and is written by the author, Katie Young.

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About the Book

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Introduction

When you think of the 'Irish Landscape', what comes to mind?

It may be an image of rolling green hills, conjured up from descriptions of landscapes in famous Irish traditional songs, or from different postcards, posters, and media that circulate images of Ireland abroad to many diasporic communities and interested travellers alike.

This textbook explores intersections of the Irish landscape in relation to (1) physical geography; (2) cultural geography; and (3) human geography. In doing so, the different case studies will ask you to consider how physical landscapes shape people's socioeconomic lives and the cultures they engage with, but also how people play a role in changes to the physical landscape (for better or worse), playing a role in the sustainability and vibrancy of the land for future generations.

In this textbook, we unpack the Irish landscape in its many forms: rural, urban, and suburban landscapes. We ask *how* these landscapes have changed over time, including environmental changes. For example, we will learn about Ceide Fields, where a farming community evolved into to a bog, and again into the tourist site found in county Mayo today. We will look at the development of Dublin as a viking settlement, and also learn about the contemporary redevelopment of Dublin's urban centres, such as Dublin's docklands.

The textbook asks how *people* have both shaped the Irish landscape past, present and future, as well as how people influence ideas, policies, and histories of the Irish landscape. Likewise, this textbook explores how the Irish landscape shapes people's lives economically, culturally, socially, and politically.

While this textbook focuses on the Irish landscape, many of its takeaways are pertinent to the reader's perceptions and understandings of their own environments, irregardless of where you are reading this textbook from. As such, I encourage you to make links and applications of some of the core themes in this textbook (such as environmental issues, gentrification, land and power, and the cultural meaning of space and land) to your own regional context, whether in Ireland or abroad.

The Book

Each chapter in this book presents two case studies connected by a core theme. The chapters reveal a myriad of insights on the physical, cultural, and human experiences and changes relating to the Irish Landscape. These case studies will ideally inform readers' future understandings and imaginings of the Irish Landscape:

Chapter 1 explores the 'making of the Irish landscape' over time through two case studies. First, the chapter explores the coming together of two land masses to create the island of Ireland as we know it today, focussing on the site of Clogherhead. Second, this chapter details the discovery of an ancient farming system under a bog, detailing the extent of history buried beneath Ireland's contemporary landscape.

Chapter 2 explores the makeup of the Irish map through details about provinces, counties, and county towns. It also provides information on the province of Ulster and the country of Northern Ireland, UK; this is relevant contextual information required for a full in-depth understanding of subsequent case studies in this textbook.

Chapter 3 is all about Dublin! This chapter explores urban development historically over time (thinking about Dublin's transitions from Anglo-Normany settlement, to Medieval Dublin, to Georgian Dublin, to present day Dublin). We explore major systems that relate to money, power and land, such as colonialism and gentrification in Dublin in both historical and contemporary contexts.

Chapter 4 looks at environmental changes to the North and South of the island, starting with Lough Neagh in Northern Ireland and moving on to Drummin Bog in County Carlow, Republic of Ireland. We will look at factors that have caused environmental crises in both of these locations, and how these factors relate to human geography (as they pertain to economic, political, and sociocultural aspects). At the same time, this chapter looks at the important work of environmental activist and community workers who are fighting to implement changes for the future sustainability of these landmarks and their surrounding regions' inhabitants, wildlife, and landscape.

Chapter 5 explores Ireland's waterways through two case studies: The River Shannon that runs north-to-south on the western side of the island, and the Grand Canal, that spans east-to-west from Dublin to the River Shannon across the middle of Ireland. These two case studies reveal the important intersections of waterways with human settlement, migration, employment, trade, and culture. What is unique in this chapter is the juxtaposition of natural and man-made waterways: both reveal insights about Ireland's changing landscape over time.

Chapter 6 examines Irish mountains, looking at two mountain landscapes to the east and west of the Republic of Ireland: Wicklow Mountains and McGillycuddy reeks. Along the way, this chapter shows the relationship between mountains and economic, religious, cultural, agricultural, and environmental life on the island, past and present.

Chapter 7 is the final chapter, that looks at how people create from the landscape through two case studies: first, the making of Aran sweaters from sheep wool, and second the production of butter from cows' milk on the island. In both instances, we learn about cultural life through creation *from* the landscape, as well as environmental impacts of these practices. We further explore the global circulation of these creations and how this circulation shapes ideas of what the Irish landscape is in a global context.

Accessibility Statement

This open textbook was designed to meet accessibility guidelines. Using online tools, we have checked to ensure it is compatible with screen readers in the online interactive Pressbooks and ebook versions. This book is available in PDF and for eReaders in EPUB and MOBI formats.

Alternative text have been included for images in this textbook. Third-party videos referenced or embedded in this textbook may not include captions. If captions are accessible, they can be access via the 'closed caption' (CC) function within the third-party video.

The H5P content (i.e. interactive activities) throughout this open access textbook are available online, but are not a part of the EPUB, MOBI, or PDF formats.

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CHAPTER ONE: THE HIDDEN LIVES OF THE IRISH LANDSCAPE

Introduction

The Irish Landscape is known for a history that dates back millions of years. What can the physical landscape tell us about how Ireland was formed? What can it tell us about who lived on the island and how they lived?

In this chapter, we explore these questions through two case studies that cover two different points in time in the Irish Landscape: Clogherhead, a fishing village in County Louth, that tells us a story of how Ireland was physically formed over 400 million years ago; and Céide Fields, an area on the west coast of Ireland, in County Mayo, that dates nearly 6,000 years old, and tells a story of how a farming community lived on Ireland's West coast during the Neolithic period (i.e. 3,500 B.C.E.).

These case studies focus on sites that speak to the formation of Ireland, both physically and through human encounters, across thousands and millions of years, respectively.

These are just two of many historical sites – of which, numerous are said to have been built by, or influenced through, human encounters. If you are interested in exploring additional sites on the island that hold physical and human histories that date back thousands of years, you might want to learn about Newgrange in County Meath – a burial mound and passage tomb built in the Neolithic period (estimated around 3200 B.C.E); or Glendalough in County Wicklow – an early Medieval monastic settlement situated within a mountainous region that was formed through glacial movement at the end of the last ice age, approximately between 73,000 to 10,000 years ago (County Wicklow Heritage 2020).

Through this chapter, we will see:

- how the physical landscape is always changing
- how these physical changes leave traces of Ireland's history
- how the physical landscape is shaped over time by humans on the island, and how humans are shaped by the changing physical landscape

The physical, human, and cultural landscapes of Ireland have an effect on each other, and we can understand more about Irish geography through an in-depth engagement with these three intertwined threads.

1.1 Case Study: Clogherhead

How was the island of Ireland formed? If we visit the small town of Clogherhead on the east coast of Ireland, we will find some physical clues embedded within the landscape that tell a millions-of-years old story about the making of the Irish landscape.

Figure 1.1 *Image of the coastline in Clogherhead. © Pavel, www.adobestock.com. View source. Included under Adobe's Education Licence – Standard Image terms.*

When the island of Ireland was formed approximately 420 million years ago, it was created from two separate land masses – known as Laurentia and Gondwana (as well as the adjacent micro-continent of Avalonia) – that were separated north and south respectively by an ocean called Iapetus; the two land masses slowly moved together over time, and eventually collided into each other forming a unified land mass (Geological Society of London 2012; Rao, Jones, and Moorkamp 2007).

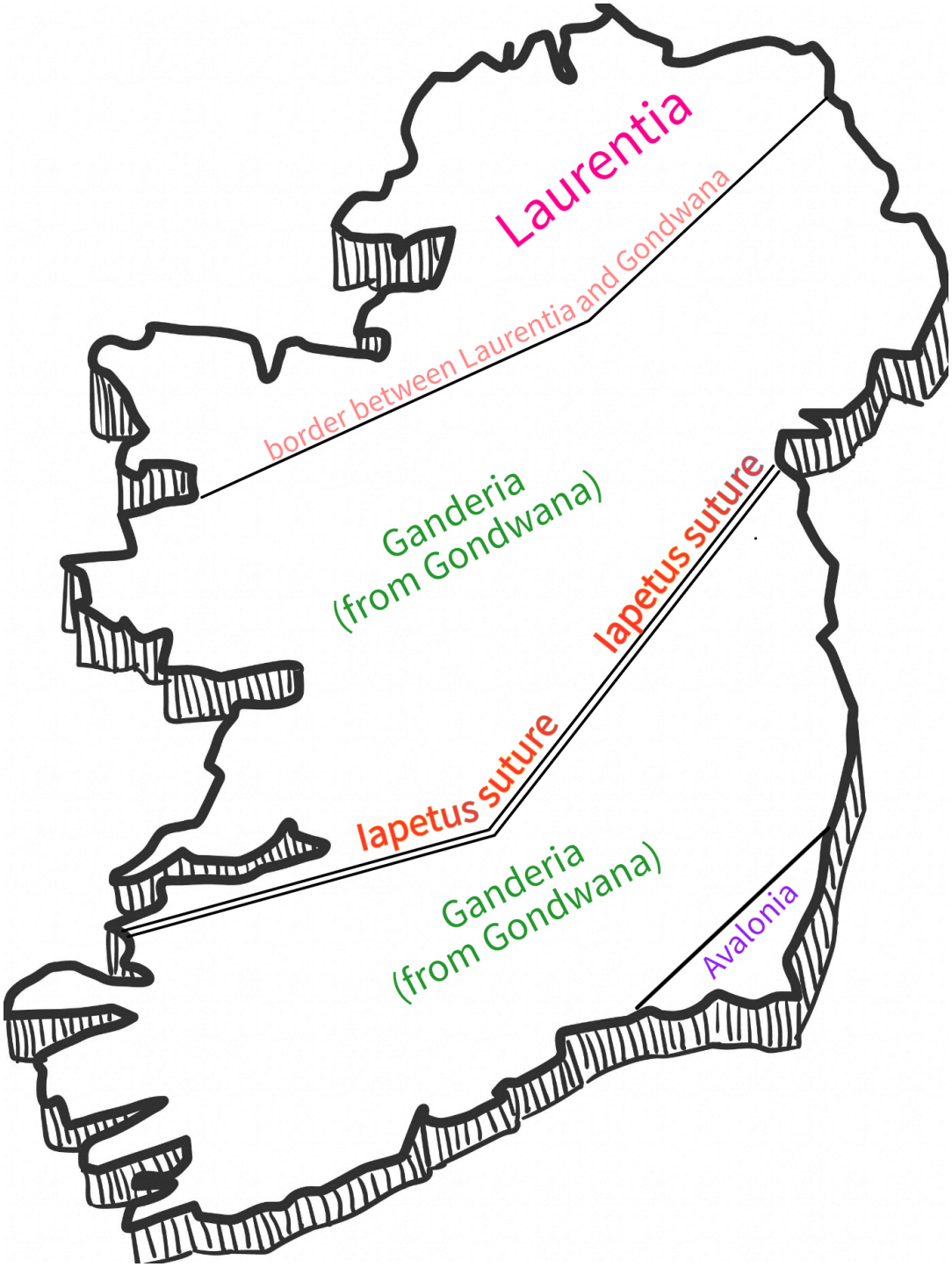

Figure 1.2 *Black and white outline of the island of Ireland. © stu-khaii, www.adobestock.com. View source. Included under Adobe's Education Licence – Standard Image terms. Modifications to this image include the series of lines stretching left-to-right across the island, as well as the accompanying coloured text, all of which was added by Katie Young in August 2024 to depict the geological terranes that comprise the island of Ireland and identify the location of the Iapetus Suture.*

The consequent geological makeup, on either side of what is referred to as the Iapetus Suture, includes:

1. a northern section that originated from Laurentia
2. a middle portion, known as Ganderian terrane, that split from Gondwana and surrounds the

collision fault line

3. a small portion of Ireland's south-eastern tip, found in Rosslare (of present-day County Wexford), which originated from part of the microcontinent Avalonia

The collision line can be drawn from Dingle, on the west coast of Ireland, all of the way up to Clogherhead in the east (Geological Survey Ireland 2024). The line itself is visible to the naked eye through the folding evident in the rocks at Clogherhead. This collision line has real implications on the makeup of Ireland today; for example, if you look at the placement of mountains on the island, you will notice a high concentration of mountains trending north-east and south-west, with few mountains in the area of the collision zone between Dingle and Clogherhead (Geological Survey Ireland 2024).

In the below Figure 1.3, compare the location of Clogherhead pin-pointed on the eastern side of the island in the satellite image to Figure 1.2 above; the below image can be used to contextualize where the Iapetus Suture occurred and is still visible:

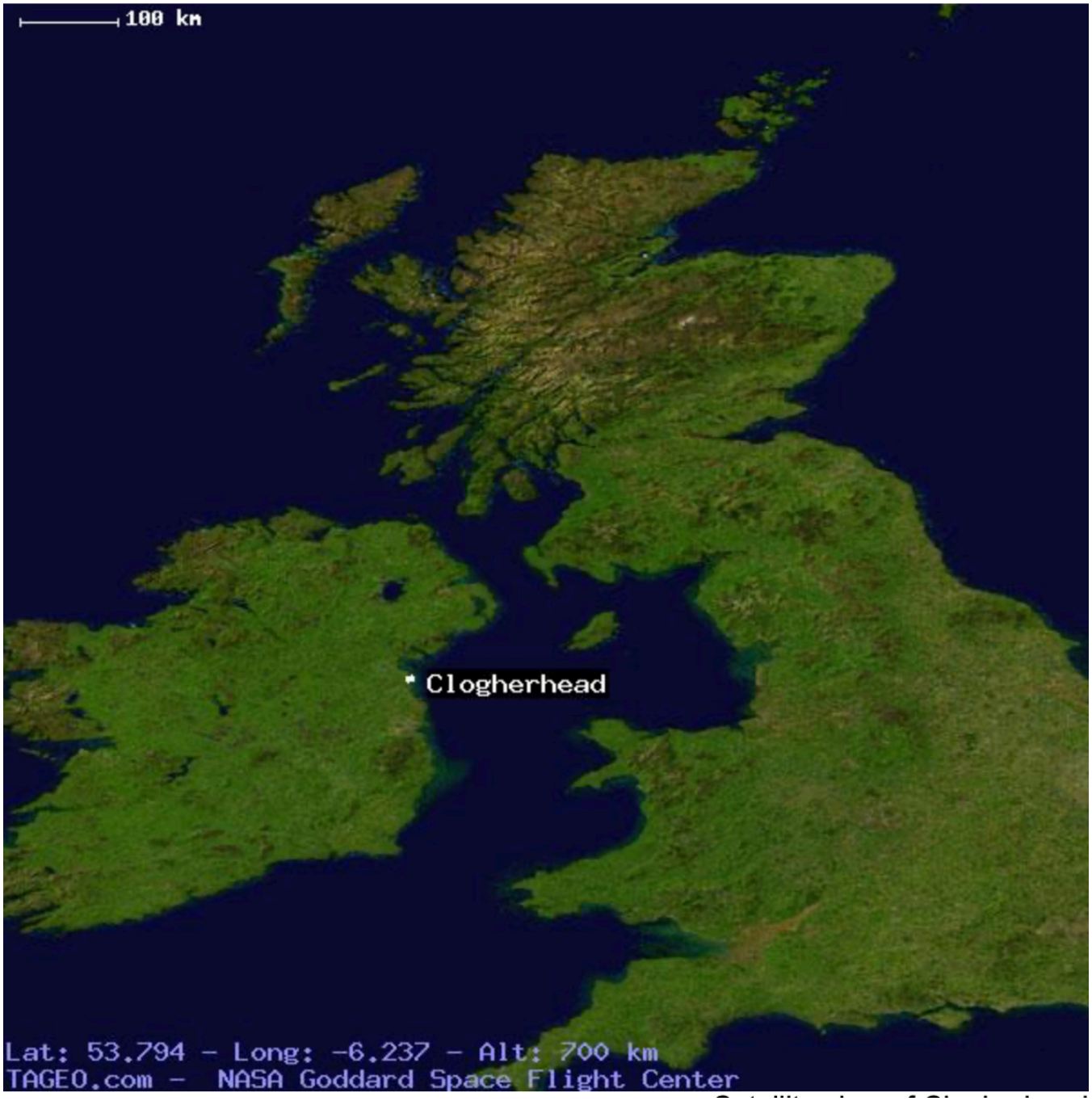

Figure 1.3 *Image of Clogherhead's location on the east coast of the Republic of Ireland taken by NASA Goddard Space Flight Center, © NASA Goddard Space Flight Center. View Source. This photograph is included on the basis of fair dealing.*

The collision of these two land masses is not only visible through the fault line that runs between Clogherhead and Dingle – it is also evident through the diverse geology of the island itself, despite Ireland's relatively small area (70,000 km square) (Geological Survey Ireland 2024). This is because the northern land mass, from Laurentia, was once connected to what now forms North America

(Geological Survey Ireland 2024). This may be easy for you to remember if you are familiar with the Laurentian Mountains and Laurentian Uplands that span the eastern and central regions of Canada. It is also noteworthy that Scotland was once also a part of North America, as its landmass collided with modern-day England and Wales at the same time and in a similar fashion (Geological Society of London 2012).

> If you are familiar with the Appalachian Mountains (that span the Northeast of the United States), this region shares a geological history with the northern region of Ireland. This is evident in the similarities between the mountains of Donegal in Ireland and the Appalachian Mountains in the United States (Rainbolt 2020). In fact, in 2011, the Blue Stack Mountains in Northern Ireland have been classified as a part of the International Appalachian Trail (Rainbolt 2020).

In the video clip below (Figure 1.4), researcher Niall Groome discusses the story of Avalonia, a geological segment of Ireland that is visible in the south-east portion of the island, which you can see in Figure 1.2 (above). While Groome focuses on Avalonia in the context of the geological making of England, Wales and Scotland, this video is useful to our understanding of Iapetus Suture on the island of Ireland, as the maps within this clip provide information on the different terranes that makeup both present-day Great Britain and the island of Ireland. Around 18 minutes into the video, Groome further provides context on the collision of Laurentia and Gondwana (as well as Avalonia) that is useful to the discussion in this section. Pay attention throughout to the maps that show the island of Ireland so that you can make connections between what Groome is saying about Great Britain, and how it correlates to the island of Ireland. The video helps to understand the making of the island of Ireland in tandem with Great Britain through the lens of Iapetus Suture:

One or more interactive elements has been excluded from this version of the text. You can view them online here: ***https://opentextbooks.concordia.ca/irishlandscape/?p=24#oembed-1***

Figure 1.4 "The Story of Avalonia: How England & Wales crashed into Scotland." Cardiff University lecture, given by Niall Groome, available on Youtube. *This video is included on the basis of Standard Youtube License.*

What, then, does the folded rock at Clogherhead reveal about the island of Ireland? In this section we have learned about the geological makeup of Ireland, and how it developed out of the convergence of very different geological land masses. At the same time, we have learned how the making of the island of Ireland during this period reveals physical connections between modern-day Ireland and North America (i.e., through the connection of the Laurentians and Appalachian Mountains) and also similarities between the makeup of the island of Ireland and Great Britain, where England and Wales share geological traits with Southern parts of the island of Ireland, while the north of Ireland shares geological origins with Scotland.

Multiple Choice Quiz

Test your knowledge on the formation of Ireland!

An interactive H5P element has been excluded from this version of the text. You can view it online here:
https://opentextbooks.concordia.ca/irishlandscape/?p=24#h5p-7

Figure 1.5 Image of the coastline in Clogherhead. © Pavel, www.adobestock.com. **View source.** *Included under Adobe's Education Licence – Standard Image terms.*

1.2 Case Study: Céide Fields

In Ireland, boglands – wetland regions comprising water and decomposing vegetation, such as peat underneath the surface and sphagnum moss on the surface – are important aspects of the Irish Landscape that hold histories relevant to physical, human and cultural geography.

See **Chapter Four** to learn more about what a bog is made up of.

Bogs offer an important setting for the preservation of a range of artefacts – from human bodies and barrels of butter to ships and farm lands. Because of their lack of oxygen and acidic soil, bogs are able to preserve these artefacts for thousands of years without decomposition. The bogs of Ireland are physical landscapes that tell historians and geographers alike what happened in a place across a long period of time.

In this section, we will look at an example of how bogs have preserved land systems in Ireland that are thousands of years old through a case study of Céide Fields. As mentioned above, Céide Fields is an area on the west coast of Ireland that dates nearly 6,000 years old. Blanket bogs formed over the region beginning around 2,300 B.C.E.; over time, blanket bogs ultimately covered the area of farming communities, degrading the farm land and forcing out farming communities who had lived on Ireland's west coast from earlier in the Neolithic period (beginning in approximately 3,500 B.C.E.) (O'Connell, Molloy, and Jennings 2020). These farmers had cleared the originally forested land (mainly of pine trees) to create space for agriculture, which archeologists believe allowed for crop growth nearly year-round during the time that the farmers inhabited the land. A subsequent change in climate, around 2,300 B.C.E., precipitated the formation of blanket and raised bogs that made the land unfarmable – and thus uninhabitable – for those living in the region; however, the change in climate also allowed for the large-scale preservation of the aforementioned farming systems through the boglands' combination of little oxygen and acidic soil.

The contemporary discovery of Céide Fields occurred in the 1930s when a schoolteacher, Patrick Caulfield, noticed piles of rocks while cutting peat, that ultimately revealed portions of the oldest known field system in the world (Irish Archaeology n.d.). The uncovering and preservation of this region followed Caufield's discovery, and today, Céide Fields is an example of a Celtic field system that you can visit, and is scheduled to become a UNESCO world heritage site (Irish Archaeology n.d.). In Figure 1.6 below, the red lines depict the extent and scale of these fieldwalls that divided up farming land, uncovered at the Céide Fields bogs in the 1930s. In the top right-hand corner, you can see that these walls are only a portion of the discovered walls, with more discovered to the south-

east of the site where the visitor centre is located. Also note the broken red lines in the southern portion of Figure 1.6 – do the gaps in walls and isolated wall segments suggest uncovered or undiscovered parts of the fieldwalls, yet to be discovered?

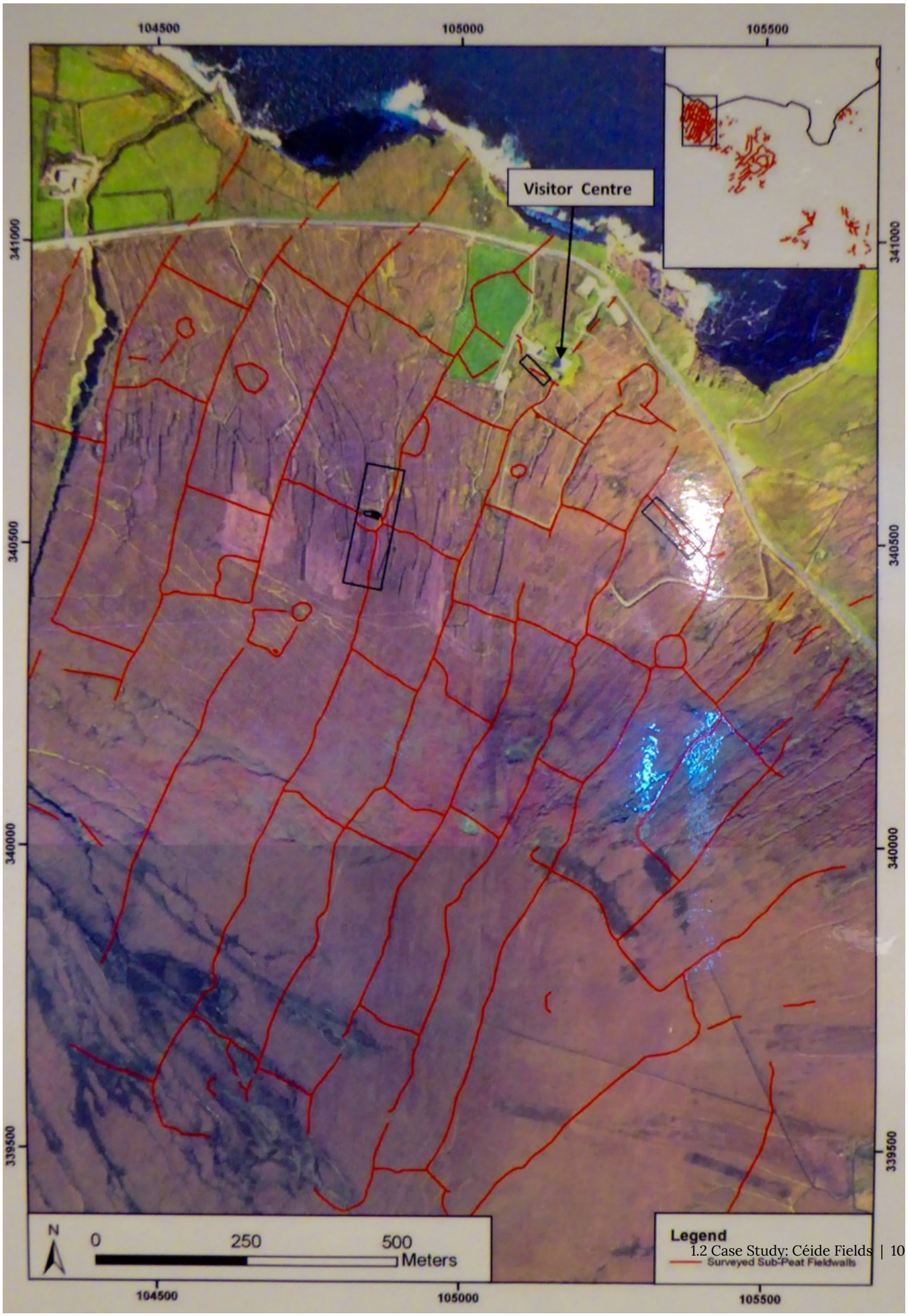
104500
105000
105500
341000
340500
340000
339500
Visitor Centre
N
0
250
500
Meters
Legend
Surveyed Sub-Peat Fieldwalls

Figure 1.6 *A map depicting the extent of historical farmland surrounding the Céide Fields Visitor Centre from Finola Finlay's photo blog.View Source This photograph is included on the basis of fair dealing.*

Interactive Video Activity

Watch the film trailer (Figure 1.7) to learn more about Céide Fields, and answer questions in the interactivity to test your knowledge. This trailer also offers unique vantage points for seeing the extent and discovery of the fieldwalls of Céide fields; for example:

- at 00:27, 01:35, and 2:00, the panoramic aerial view shows the distance of the fieldwalls
- at 00:54-00:58, you can see the walls upclose to get a sense of how they were built
- at 1:23, you can see the process of uncovering the walls under the bog

An interactive H5P element has been excluded from this version of the text. You can view it online here:
https://opentextbooks.concordia.ca/irishlandscape/?p=27#h5p-1

Figure 1.7 Theatrical trailer for Céide Fields, a documentary film, directed by Davide Gambino, available on Vimeo. **View Source** *This video is included on the basis of Vimeo's terms of service.*

The blanket and raised boglands of west Mayo are responsible for preserving hundreds of hectares of stone-walled fields (Heritage Ireland 2024). Inside the contemporary visitors centre, you can learn about the many discoveries underneath the bogs that tell stories about human inhabitation and farm practices of the Neolithic period – including what residents of the time would eat, their harvesting practices, their cultural and sacred practices, and their journey to the land itself, including the trials and risks taken to inhabit the land and develop it into the farming system that we know it for today. In the Céide Fields visitor centre, you can contextualize this discovery in more depth, with visualizations such as Figure 1.6 above telling the story of these boglands over time.

Summary, References, and Resources

Summary

In this chapter, we have learned that the physical geography of Ireland is always in flux – from its formation to its changing physical landscape, the island has been in motion for millions of years. Today, the physical landscape tells us stories of how the land was formed, and how it is connected with other physical parts of the world; at the same time, case studies such as Céide fields remind us that the physical landscape itself is always in flux (in this case, from forested land to farmland to bogland to UNESCO heritage site). The landscape, then, is intimately linked to our understanding of the island of Ireland over time – not only in terms of physical geography, but as the physical relating to human and cultural geographies as well.

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CHAPTER TWO: MAPPING IRELAND

Introduction

In Ireland, the physical land is divided politically in multiple ways. It is divided by provinces that span the island, counties that span the island, but also by a land border that separates the Republic of Ireland from Northern Ireland, one of four countries within the United Kingdom. In this chapter, we will set the scene for the different political divisions of land on the island of Ireland that will help contextualize much of the content in this textbook as well as other materials you may encounter when learning about the making of the Irish landscape.

Figure 2.1 *Topographic map of the island of Ireland. © bogdanserban, www.adobestock.com. View Source. Included under Adobe's Education Licence – Standard Image terms.*

2.1 Ireland's Counties and Provinces

The island of Ireland is comprised of 32 counties – 26 of these counties are within the Republic of Ireland, while the remaining 6 are in Northern Ireland.

Figure 2.2 *Map showing the 26 counties that make up the Republic of Ireland and their main county towns, that function as administrative centres. © Iryna Volina, www.adobestock.com. View source. This photograph is included under Adobe's Education Licence – Standard Image terms.*

Irish Counties

The counties of Ireland were formed at different points in time.

The original counties of Ireland were formed at different points between the 9th and 14th centuries; many of the counties were developed during the Anglo-Norman invasion, while others (such as Dublin) were established during Viking settlements on the island (Wright 2020). The counties that developed during this historical span include:

- Dublin
- Carlow
- Cork
- Kerry
- Kildare
- Kilkenny
- Limerick
- Louth
- Meath
- Tipperary
- Waterford
- Wexford

Alongside these counties, new counties emerged under different monarchies in the country; for example, counties Laois and Offaly were established as King's and Queen's counties under the reign of Queen Mary in the mid-16th century. Elizabeth I was the monarch of Ireland from the mid-16th to early-17th centuries, and established a series of additional counties, among them:

- Armagh
- Clare
- Cavan
- Derry
- Donegal
- Fermanagh
- Galway
- Leitrim
- Longford
- Mayo
- Roscommon
- Sligo
- Tyrone

The remaining two counties – Down and Antrim – do not have clear dates of establishment, while the “final county” to be formed was Wicklow in 1605.

Figure 2.3 *Map of the entire island of Ireland, showing all 26 counties and many cities across the Republic of Ireland. © Porcupen, www.adobestock.com. View source. This photograph is included under Adobe's Education Licence – Standard Image terms.*

Each county in Ireland has a distinct culture and heritage, as well as a unique landscape. As you read through the subsequent chapters, you will learn more about these distinct counties in relation to key themes and highlights. For example – in Chapter One, you have already learned about important physical landscapes found in counties Louth and Mayo. (Can you recall what these historical landmarks are and how they inform our understandings of the lived environment in these counties?)

Each Irish county is governed by local authorities, which can have real impacts in moments of change. For example, during the Covid-19 pandemic, the lifting of lockdown restrictions began within each county, where residents could travel within their county but not cross a county borderline.

In the below map, you can get a sense of the different counties, and where they are situated in relation to the different provinces on the island:

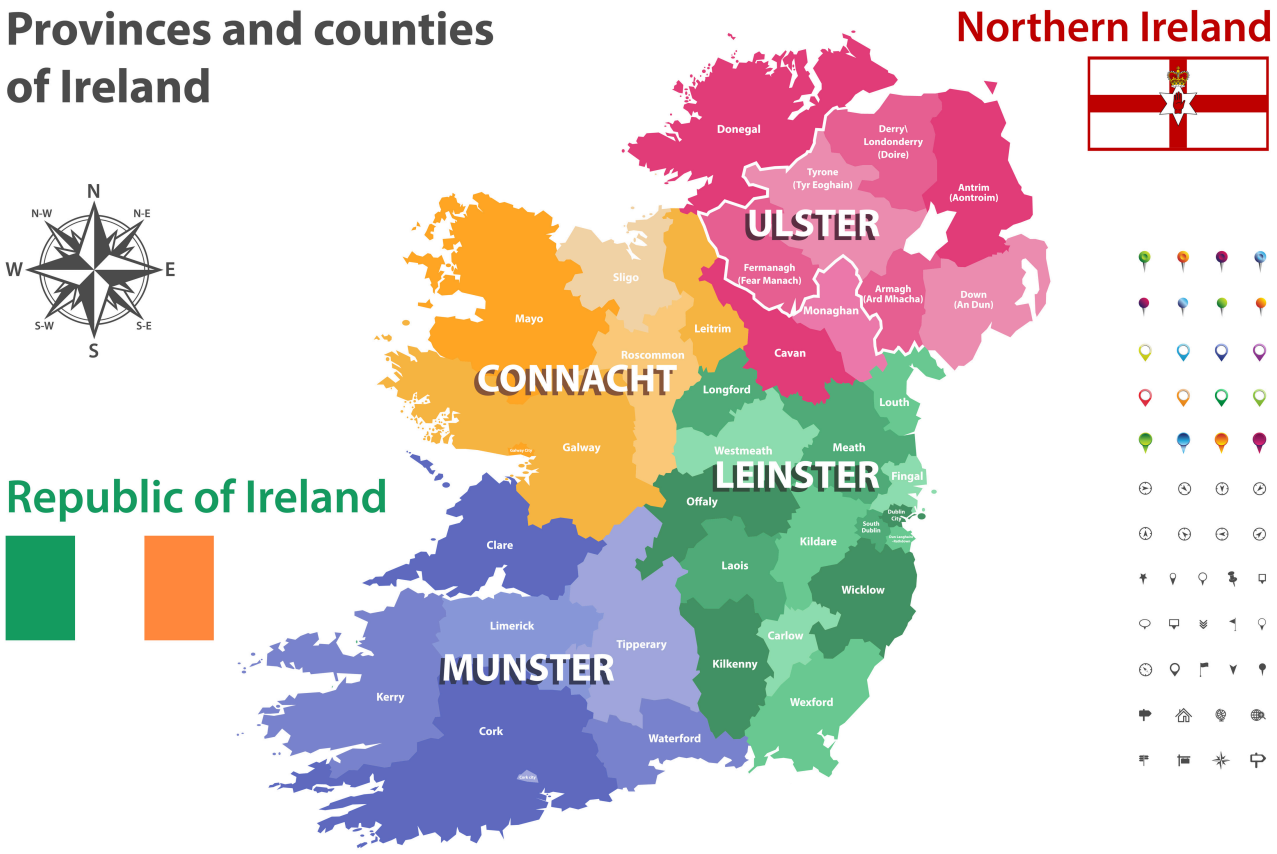


Figure 2.4 *Map of the island of Ireland's 4 provinces and the counties that reside within their borders. © Brichuas, www.adobestock.com. View source. This photograph is included under Adobe's Education Licence – Standard Image terms.*

As well as knowing the county names, it is important to have a sense of how these counties are related to each other in terms of their positioning on the island (i.e., east, west, south, and north), as well as their relation to particular geographic points. For example, in our later chapter on waterways, you will become familiar with how major canals passed through particular counties and how this shaped the economies of those regions. Likewise in our chapter on mountains, you will begin to get a sense of where mountains are situated within these counties and how that shapes the cultural, economic, and social life in these counties.

Irish Provinces

The 32 counties of Ireland are divided up into four provinces, known as:

- Connacht
- Ulster
- Munster
- Leinster

These four distinct provinces are known for particular cultural, creative, commercial and physical attributes. Many of the attributes that provinces are known for span multiple counties within the province. For example, as you read through this textbook, you will find that Munster is known for its green pastures and thus, by extension, its successful dairy farming industry.

2.2 Case Study: Understanding the Republic of Ireland and Northern Ireland

You may have noticed in the above sections that we have been referring to Ireland as the "island of Ireland". This is because we are referring to counties and provinces that span two distinct political regions – Northern Ireland and the Republic of Ireland. If you look at the county and provincial map (Figure 2.4 in the previous section), you will notice that the province of Ulster encompasses 9 counties.

Figure 2.5 *Map of the 6 counties that comprise Northern Ireland. © Danalva, www.adobestock.com.* View source
This photograph is included under Adobe's Education Licence – Standard Image terms.

It is important to note that three of the counties in Ulster – Donegal, Cavan and Monaghan – are a part of the Republic of Ireland, while the remaining six counties (Londonderry, Antrim, Down, Armagh, Tyrone and Fermanagh) are situated within the national borders of Northern Ireland, a

region that is part of the United Kingdom. So, while the other three provinces of Munster, Leinster and Connacht are situated within the Republic of Ireland, we can see that Ulster holds counties on both sides of the political border.

Figure 2.6 *Roadmap of Northern Ireland. © Seadog81, www.adobestock.com. View source. This photograph is included under Adobe's Education Licence – Standard Image terms.*

The reason for the political division between Northern Ireland and the Republic of Ireland dates back to the plantation of Ulster in the 17th century, when many people from Northern England and Scotland moved to Northern Ireland to settle and farm under the reign of Kings James VI. Those who settled in this region brought the protestant religion and spoke English, while the Irish residents already living on the land were Catholics who spoke Irish. By 1630, there were 13,000 male residents from Scotland or Northern England living in Ulster. This form of settler colonialism enacted by the English at the time was contentious, and led to many Irish residents being displaced from their land in favour of settler farmers who lived and worked on plantations. As Scottish and Northern English people lived in this area across generations, they lived alongside Irish people whose faith, language and land ownership was often contested. Given the power of the protestant communities over time, other rights held by Catholic communities became compromised as well,

such as limited access to jobs and difficulties securing land to rent. Religious and political tensions have been an integral part of the history of this portion of the island; through many conflicts and wars, there has been an ongoing dispute related to the unification of Ireland – versus maintaining Northern Ireland as a separate entity from the Republic of Ireland. You may be familiar with this long-standing, complex, and complicated history in relation to the civil war known as the Troubles, which took place during the latter half of the twentieth century.

In this video by Dr. William Roulston, you can learn more about how the plantations were developed, and who inhabited this region:

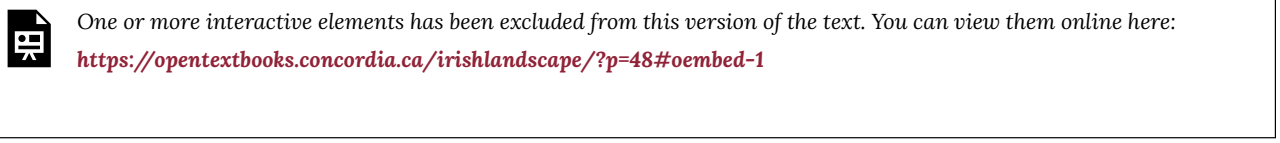
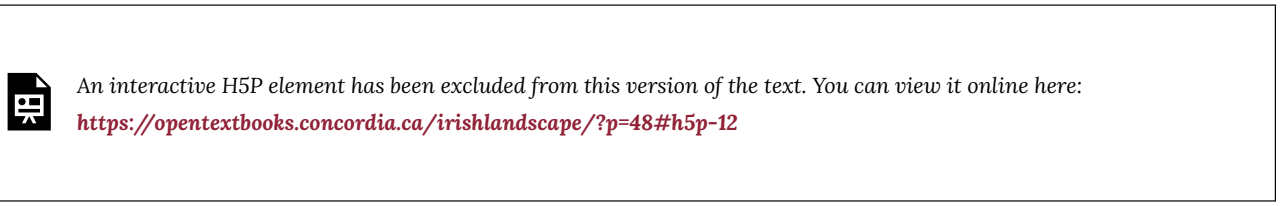


Figure 2.7 The Plantation of Ulster by Dr. William Roulston, available on Youtube. *This video is included on the basis of the Youtube Standard License.*

Food for Thought



Summary, Activities, and References

Summary

This chapter has introduced the basics of counties and provinces on the island of Ireland, and has situated these provinces and counties within the context of the two main political entities that exist on the island – the Republic of Ireland and Northern Ireland. This framework is integral to look back on and have a firm grasp of as you continue to read about the making of the Irish landscape throughout this textbook. For instance, when you come to read about the environmental crises in Northern Ireland's Lough Neagh, and consider their impacts on drinking water in the surrounding regions, you will know that this environmental change impacts the Northern Irish counties within the province of Ulster, bordering the lake (i.e., Derry, Antim, Down, Armagh and Tyrone). In this regard, while limited in its cultural, human and physical analysis, this chapter provides significant context in relation to political borders and boundaries that ground much of what you will learn in the subsequent chapters.

Interactive Map Activities

Try to match the missing county and province names to their locations on the maps below!

An interactive H5P element has been excluded from this version of the text. You can view it online here:
https://opentextbooks.concordia.ca/irishlandscape/?p=61#h5p-9

Figure 2.8 Map of the 4 provinces on the island of Ireland. © Holthoff, www.adobestock.com. **View Source**. *This photograph is included under Adobe's Education Licence – Standard Image terms.*

An interactive H5P element has been excluded from this version of the text. You can view it online here:
https://opentextbooks.concordia.ca/irishlandscape/?p=61#h5p-10

Figure 2.9 Map of the 26 counties that make up the Republic of Ireland. © asantosg, www.adobestock.com. **View Source**. *This photograph is included under Adobe's Education Licence – Standard Image terms.*

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- Web Archive Link: http://web.archive.org/web/20250612143454/https://heritage.wicklowheritage.org/topics/genealogy/general-information/2_administrative_divisions_in_19th_century_ireland

CHAPTER THREE: URBAN SETTLEMENT IN IRELAND

Introduction

Across the counties and provinces on the island of Ireland, there are important urban settlements. As we will see in this chapter, the threads of physical, human and cultural geography remain both apparent and intertwined in relation to the development of Ireland's many unique urban settlements. As is often the case in global contexts, major city centres in Ireland have emerged through their strategic physical location – often near waterways or significant transport infrastructures that allow for the movement of people (including residents, visitors, and tourists), as well as the movement of major commercial goods. In addition to their strategic locations for travel and trade, each major city in Ireland has developed its own cultural character and is known for particular aspects of Irish life. For example, the city of Galway, on the west coast of Ireland, is well-known for Irish language speaking, and the presence of traditional Irish music. Given that colonial rule in Ireland – for which the British prohibited the speaking of Irish language – traveled from east to west, it makes sense that a city like Galway on the west coast would retain and celebrate its cultural closeness to the Irish language.

Each county has its own administrative hub that ranges in size (from a town to a city) dependent on the area. Many of the counties are home to major cities that share the same name:

- the county of Dublin's main administrative centre is the city of Dublin, which is the largest city on the island of Ireland, as well as the capital city of the Republic of Ireland
- the county of Cork's main administrative centre is the city of Cork, which is the second largest city in the Republic of Ireland
- the county of Limerick's main administrative centre is the city of Limerick, the third largest city in the Republic of Ireland
- the county of Galway's main administrative centre is the city of Galway, the fourth largest city in the Republic of Ireland
- the county of Derry's main administrative centre is the city of Derry, the second largest city in Northern Ireland

In smaller counties, there are also major towns known as "county towns" that have emerged as points of administrative importance – where hospitals, local government, health care access, and trading opportunities (such as weekly markets) are found. For example, we can see this in the town

of Ennis in County Clare, or Tralee in County Kerry. Many county towns are also linked to major transportation routes, either through train or bus systems, that connect these smaller settlements to larger urban settlements across the island.

Major urban settlements throughout the island of Ireland have emerged for their strategic positions in relation to trade. For example, look at the map of Ireland below and consider the location of Galway, Dublin, Waterford, Cork, and Belfast – all major cities throughout the island. What physical attributes do these cities share, and what power do they hold in relation to the movement of people as well as the movement of commercial goods?

Figure 3.1 *Map of Ireland that shows major cities and waterways. © Peter Hermes Furian, www.adobestock.com. View Source. This photograph is included under Adobe's Education Licence – Standard Image terms.*

3.1 Case Study: Dublin

When considering urban development in Ireland, what better place to start than the largest city on the island, and the capital of the Republic of Ireland: Dublin.

In this chapter, we will get a sense of different periods of time in Dublin's urban development, considering how human settlement was shaped by the physical environment, as well as how humans have shaped the urban environment through patterns of settlement that were informed by trade, power, and (at times) displacement.

Figure 3.2
Photograph taken in the Temple Bar neighbourhood. © borisb17, www.adobestock.com. View source. This photograph is included under Adobe's Education Licence – Standard Image terms.

The Core Physical Attributes of Dublin

Physically speaking, Dublin is a relatively flat city – nestled between low mountain ranges to the south of the city, and flatter farmlands to the north of the city (Lopez, Sheehy, and Williams 2016). It is also not a very dense city; this is because Dublin's buildings are low density, with most buildings being five to six stories tall as a result of city building policies. Along with an increase in population, the high cost of housing has driven residents to the suburbs, leading to urban sprawl and the rise of suburban areas (Lopez, Sheehy, and Williams 2016).

Figure 3.3 *Photograph of Grattan Bridge over the River Liffey © susanne2688, www.adobestock.com. View source. This photograph is included under Adobe's Education Licence – Standard Image terms.*

The core of the city centre in Dublin is where the city meets the River Liffey – a long river that extends from the mouth of the Irish sea, all the way through Dublin, and down into the Wicklow mountains, forming what could be described as a sideways horseshoe (if this helps you to remember!). The city has grown up around the River Liffey, divided by the river into North and South Dublin. You may have heard of some of the major tourist areas and sites: Temple Bar and the Guinness Brewery are situated right on or steps away from the River Liffey.

Figure 3.4 *Aerial view of Guinness Brewery on the River Liffey. © Steve, www.adobestock.com. View source. This photograph is included under Adobe's Education Licence – Standard Image terms.*

History of Settlement and Urban Growth of Dublin City

Dublin has for centuries been a site of settlement for those who have travelled to this eastern coastal area. Part of its attractiveness was due to its location on the River Liffey, as well as its proximity to the Irish sea – which easily connected it to other major regional centres, especially those within England. In the below image is Ha'Penny bridge, one of the many iconic bridges that line the River Liffey in central Dublin:

Figure 3.5 *Photo of Ha'penny Bridge over the River Liffey. © Steeve ROCHE, www.adobestock.com. View source. This photograph is included under Adobe's Education Licence – Standard Image terms.*

To get a brief sense of the longevity of human settlement patterns in Dublin, some significant moments of settlement include:

Viking Settlements (9th Century)

- While settlements existed on the banks of the River Liffey before the 9th century, the arrival of Vikings in Ireland saw a rapid transformation of this area into a major urban centre that became significant for trade (Dublin Civic Trust 2024)
- The below image (Figure 3.6) visualises what the area of Dublin would have looked like around 1,000 A.D, when Vikings settled the area – from this image, you can see the proximity of the settlement to the sea as well as the river
- Figure 3.6 also reveals just how much Dublin has changed from its early period of settlement to now – use this image as a starting-point to contextualize the major shifts that have taken place in relation to settlement in the city over time as you read through this chapter:

Figure 3.6 *Map depicting a reconstruction of Dublin around 1,000 A.D from The National Museum of Ireland in Roskilde © The National Museum of Ireland, made available via the Viking Ship Museum. View Source. This photograph is included on the basis of fair dealing.*

Anglo-Norman Settlement (12th Century)

- In this period, the Anglo-Normans shaped the city in many ways, including building city walls for protection that are still traceable today, visible by the black lines in the below Figure 3.7 (Liberties Dublin 2020)
- Both Viking and Norman settlements in Dublin formed street patterns that remain in and around the city centre, including near the areas of Dublin Castle and Temple Bar, as evidenced in Figure 3.7 on the south-east portion of the map (Dublin City Council 2024d)

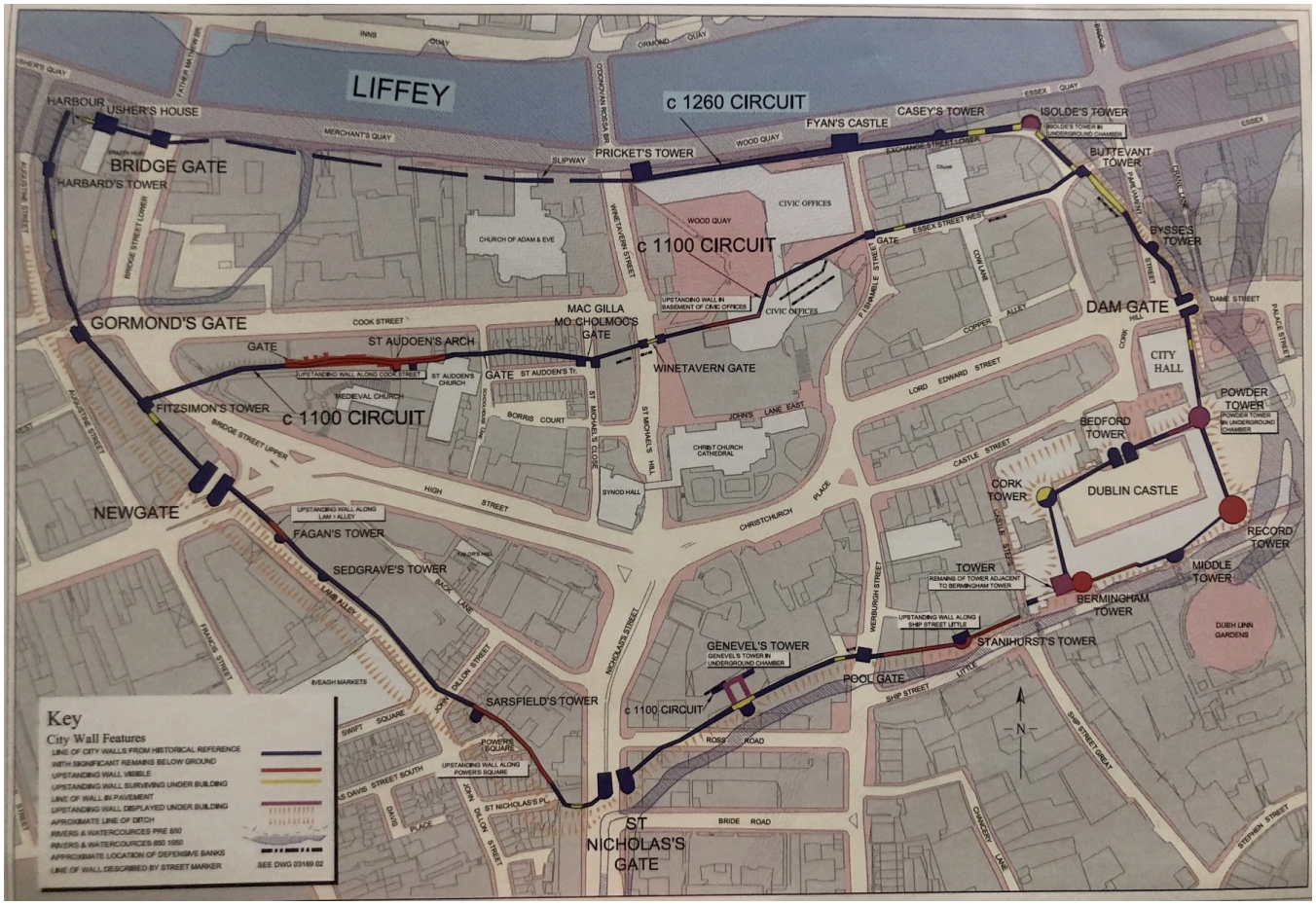

Figure 3.7 *Map showing the remains of city walls from the 12th and 13th centuries in the city of Dublin from Dublin City Council. © Dublin City Council via The Liberties Dublin. View source. This photograph is included on the basis of fair dealing.*

Medieval Dublin (13th to 16th centuries)

- Following the creation of the city walls during the Anglo-Norman period, there was expansion beyond the walled city – for example, into an area known as the Liberties on the south side of the Liffey, west of Dublin Castle (Dublin Civic Trust 2024)
- The Medieval cobble-stone streets of Dublin can still be found in Temple Bar (Dublin City Council 2024b)

17th Century Dublin

- Between the Medieval and Georgian periods in Dublin, the city saw rapid population growth, as well as the expansion of new neighbourhoods on the north side of the Liffey (Dublin Civic Trust 2024)

Georgian Dublin (18th Century)

- During this time, Dublin was in a period of expansion; the involvement of British colonial rule was evident, as Dublin became a British administrative seat and was referred to as the "second city" of the British Empire (Dublin Civic Trust 2024); this was, in part, because Dublin was the second largest city of the empire at that time (Dublin City Council 2024b)
- Some key sites that still exist in Dublin today, as main tourist attractions, developed during this period – such as Merrion Square, Fitzwilliam Square, and Mount Pleasant Square (Dublin City Council 2024a)
- While Dublin has its historic roots as a Viking city, much of the layout of the city centre (as we know it today) emerged out of the 17th and 18th centuries – including the commercial roads, terraced buildings, and public parks (Dublin Civic Trust 2024)

Through the brief historic snapshots above, we begin to see how different periods of time and human settlement in Dublin are layered onto each other, shaping the city in unique ways. As Dublin Civic Trust posits, the city is Georgian urban architecture mixed with both 17th century and medieval urban planning, resulting in a hodgepodge of curving routes from previous eras alongside the symmetry of the Georgian period (Dublin Civic Trust 2024).

Dublin's city museum, *Dublinia*, provides visualisations produced by Noho that help to imagine what life might have looked like at different stages. Click the links below to explore these visualisations through the ***Dublinia*** museum's virtual resources:

An interactive H5P element has been excluded from this version of the text. You can view it online here:
https://opentextbooks.concordia.ca/irishlandscape/?p=73#h5p-18

3.2 Recent Settlement Changes in Contemporary Dublin

As detailed above, Dublin's cityscape is made-up of largely low-rise buildings (Cassidy 2024). As the population of Dublin expands through migration and a growing population, there are increasing pressures on housing, and as a result, the city has encountered a cost of housing crisis in recent years, resulting in many residents being forced outside of the city into the Greater Dublin Area and beyond. The limits on available housing – to both rent and buy – has resulted in an increase in rent and mortgage prices, an aspect that inevitably shapes the demographic makeup of a city, as wealthier individuals are able to afford living in the city centre, while those with less financial capital are pushed further out (Academy of Urbanism 2006). This leads to several patterns in urban settlement, such as urban sprawl, the rise of suburbs, and the process of gentrification in neighbourhoods on the outer limits of the city centre (Cassidy 2024).

Image Juxtaposition

Below, move the cursor to compare urban expansion in Dublin from satellite images that contrast Dublin in 1984 and 2022 to see what has changed over this period of time. In particular, look for:

- the direction of urban sprawl in the city
- the increase of urban density in particular parts of the city
- the changes in the Docklands area, discussed in this chapter
- the development of new roads

***Figure* 3.8** These two satellite images of urban expansion in Dublin during the years 1984 and 2022 were taken by NASA's Earth Observatory, for an article titled "Dublin Urban Expansion" (2024). © NASA Earth Observatory. **View source**. *These photographs are included on the basis of fair dealing.*

Replanning and Development: A Case Study in Dublin's Docklands

In recent years, major redevelopments have taken place in Dublin. This is attributable to major economic changes, including the Celtic Tiger – an economic boom in the early 2000s – as well as the rise of international companies in Dublin due to some of Ireland's lucrative taxation policies.

One example of a major redevelopment in Dublin's urban landscape is Dublin Docklands, an area where the River Liffey meets the beginnings of the Grand Canal. The development of the Docklands commenced in the late 1990s under the Dublin Docklands Development Authority, and has included the building of restaurants and hotels around the docks; the area has been noted as being "more market than community-oriented" in terms of how it has been built (Academy of Urbanism 2006). Some of the aims of the project included a change in land use, including the promotion of expanded residency, development of social activities, and a boost in employment and economic development in the area (Dublin City Council 2024c).

Figure 3.9 *Photograph of the Dublin Docklands taken by Katie Young. This image holds the same copyright of the book* (CC-BY-4.0).

As Agustina Martire (2012) writes of the Dublin Docklands project, the focus was not on the preservation of existing communities when the redevelopment project took place. Martire (2012) presents an interesting study of Dublin's Docklands urban morphology in this regard: the redevelopment overlooked the existing histories of the areas of Ringsend and Irishtown, where the Docklands are situated today. The intangible histories of Irishtown in particular are significant to what you have learned above regarding Dublin's city walls of the 17th century; during that time, Irish residents were exiled to the area that the Docklands envelops, and by the 19th century the area had developed a reputation of being deteriorated and a contaminated space of industry. By the late 19th century, the Docklands area was considered working class, while areas further inwards were considered socially mobile. The Docklands continued to have a working class identity in the 20th century.

Figure 3.10 *Photograph of Bord Gais Energy Theatre in the Dublin Docklands taken by Katie Young. This image holds the same copyright of the book* (CC-BY-4.0).

When we consider the upscale hotels and restaurants that line the Docklands as a part of Dublin's Dockland redevelopment scheme, we can see the incongruence that emerges, as Martire (2012) so eloquently details:

"The urban design and building type of these new developments basically invites a certain type of population that clashes, and is totally at odds with the existing one, while the sense of authenticity and identity of an urban area is lost" (52).

Just as we have seen the layering of different moments from Dublin's history in its contemporary lived environment – from historic city walls to Georgian houses – we can also see the contemporary layering of new urban development schemes onto existing communities, and how these developments can change the shape and nature of both cultural life and the physical architecture of these areas over time. The changing shape of urban settlement and development in Dublin is always in flux, and contemporary changes reveal this ever-changing process.

Figure 3.11 *Photograph of the Dublin Docklands taken by Katie Young. This image holds the same copyright of the book (CC-BY-4.0).*

Summary, References, and Resources

Summary

In this chapter, we have explored the significance of major urban settlements in the making of the Irish landscape. We have seen how major urban centres, including Galway, Dublin, Waterford, Cork, and Belfast, have developed in strategic locations of trade, often connected with major waterways. In particular, this chapter has honed in on the city of Dublin; we learned about how Dublin emerged as a centre in relation to trade and politics. We have also been introduced to the many changing populations of the city of Dublin, across a thousand-year period. Today, Dublin is an amalgamation of the ongoing political, cultural, social and economic changes that continue to shape the urban structure and settlement of its residents. Just as city walls once defined Dublin, we see today how urban sprawl and the housing crisis call into question how the city of Dublin can be defined as it expands outward. Likewise, we have seen how populations can change over time: from Irish residents of the 17th century moving into Irishtown (present-day Docklands) to the introduction of gentrified populations in the Docklands redevelopment scheme, we see a city whose demographic shifts are far from static.

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CHAPTER FOUR: ENVIRONMENTAL CHANGE

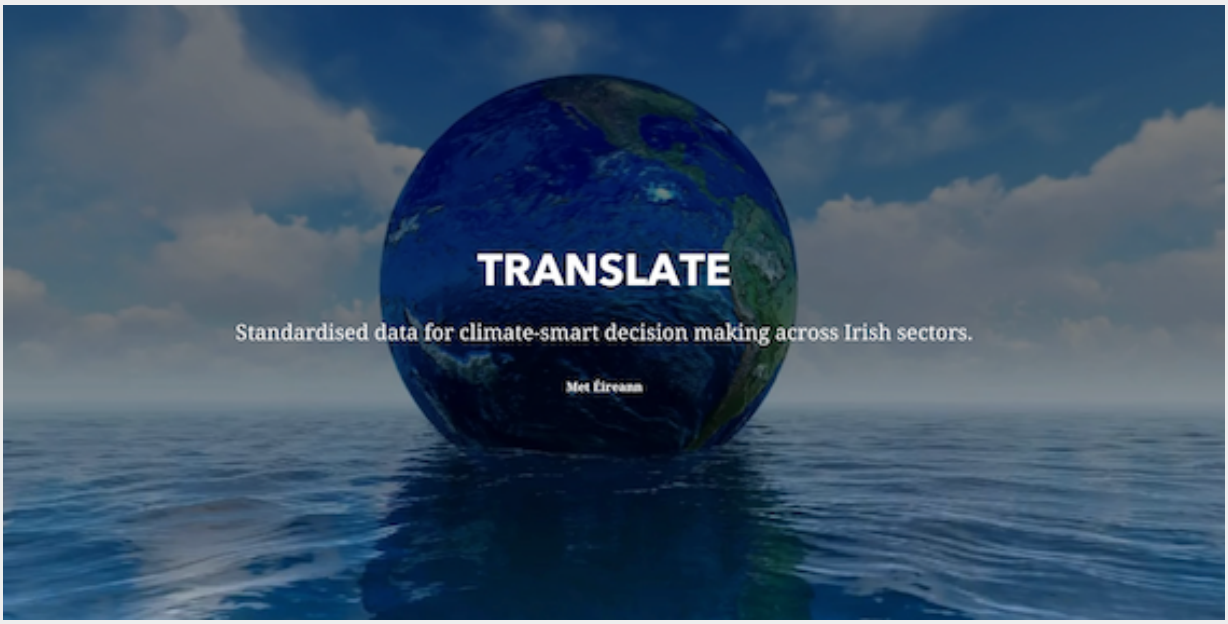
Introduction

In this chapter, we will explore environmental change in Ireland, including its visible impacts on the Irish landscape, as well as the lived experiences of those who live near – and/or have cultural connections with – different regions of the Irish landscape impacted by environmental and climate change.

Ireland's Environmental Protection Agency states that Ireland is experiencing an increase in temperature, an increase of heavy rain in winter and autumn (with a decrease in rainfall in the spring and summer periods), and a rise in sea levels that would lead to flooding and coastal erosion (Environmental Protection Agency 2024). The change in rainfall patterns will have impacts on plants and animals, as well as human life. For example, these climate-related concerns threaten to impact Ireland's water supply; food supplies may also be impacted where climate change affects farmers' ability to grow crops.

In recent decades, climate change has significantly impacted the Gulf Stream in the North Atlantic. The Gulf Stream is known to move warm surface water from the equator towards the North, and send cooler deeper water southward. Recent human-related behaviours linked to climate change have been deemed responsible for the slowing of this movement of currents. The slowing of the Gulf Stream is leading to a rapid change in weather events in Ireland, such as intense storms in the winter, and heat waves with less rain in the summer months (O'Sullivan 2021).

If you're interested in learning more about Ireland's changing climate, check out this StoryMap produced by the TRANSLATE research initiative:



In the two case studies in this chapter, we will explore how human behaviours – linked to political, economic, and sociocultural activities – have led to the degradation of key aspects of the Irish landscape, including Ireland's major lake, as well as raised and blanket bogs across the island. We will explore the many facets of life in the Irish landscape that have led to this degradation, its impacts for the future, and the ways in which activists are taking action to protect and preserve the future of these regions.

4.1 Case Study: Lough Neagh

Lough Neagh is a lake located in Northern Ireland, measuring 396 square kilometers (Banting 2002, 8). It is the largest lake on the island of Ireland, surrounded by fertile lands used for farming. It is home to a wide range of life, including fish and wild eel (with the largest eel fishery in Europe); in fact, it is home to the most abundant inland fishery in all of Northern Europe. Lough Neagh is also connected to a range of industries, including peat extraction, sand extraction, water extraction, and recreation/tourism, ranging from fishing and boating to cycling and swimming.

Figure 4.1 *Photograph of Lough Neagh. © Peter, www.adobestock.com. View source. This photograph is included under Adobe's Education Licence – Standard Image terms.*

In 2023, Ireland's largest lake came into the news as it was turning green, a result of 'blue-green algae bloom', which refers to the process when alga increases to large quantities within a body of water, subsequently sucking oxygen out of water to feed itself. Environmental researchers and experts have associated this recent turn with a range of factors, including sand dredging and pollution from agricultural runoff. Algae feeds off animal excretion, such as excretions from farm animals; this is why the pollution in Lough Neagh is partially attributed to runoff related to farming practices in Northern Ireland. The runoff can seep from the soil into moving waterways, such as rivers, that ultimately flow into larger bodies of water, like Lough Neagh. Overtime, the algae thrive

off the additional nutrients in the polluted water, such as the nitrogen and phosphorus present in agricultural runoff (WaterOne n.d.). The algae presents itself as a blue-green foam on the water's surface and creates toxins that can be poisonous to both people and animals (WaterOne n.d.).

As a result of the poisonous nature of the algae bloom in Lough Neagh, there have been significant impacts on those who work or partake in recreational activities on the lake, as well as impacts to the animal species that inhabit it. For example, fishers are no longer able to fish in certain areas, whilst it is no longer safe to swim or boat on the lake. Local activist groups, including Save Lough Neagh, are actively involved in challenging the environmental pressures causing blue-green algae bloom in Lough Neagh, including staging protests near the lake that question and problematize the role that current farming practices and sand dredging have on the lake's future. Groups such as People Before Profit have characterized the current state of Lough Neagh as a human rights issue, especially as this body of water is the main source of drinking water for the region (People Before Profit 2023). Activist groups have taken up their cause with news media, as well as posed petitions to the Northern Irish government, appealing to the future of the lake for human and non-human beings alike. They have also developed activities, such as cycle events like Lap the Lough, that raise awareness about community experiences with algae blooms on the lake. Groups such as Save Lough Neagh have written to politicians calling for a full investigation of how sand dredging might be involved in the cause of blue-green algae, as the practice disrupts nutrient deposits on the bed of the lake (Corr 2024).

Sand dredging is a commercial practice where sand is extracted from the beds of bodies of water for commercial purposes, such as sand used for sports fields or housing construction. Friends of the Earth UK has reported that 1.5 million tons of sand are taken from the bed of Lough Neagh each year, a practice that has been ongoing for thirty years now (Orr 2018). According to The Irish Times:

"Sand extraction at Lough Neagh was unregulated until 2021 when a handful of firms were licensed by the Northern Ireland Department for Infrastructure to dredge up to a total of 1.5 million tonnes annually" (Greene 2022).

As this case study reveals, there are multiple players with stakes in the future sustainability of Ireland's largest fresh body of water. Politicians, activists, environmental researchers, and corporate interests (such as those involved in sand dredging or unsustainable agricultural practices) play a part in the tug-of-war between the continuation of capitalist motivations and the sustainability of the lake, the preservation of its surrounding ecosystems, the standards required for safe recreational use, and the wider-reaching effects for the residents of Northern Ireland – particularly, their access to nearby drinking water.

An interactive H5P element has been excluded from this version of the text. You can view it online here:
https://opentextbooks.concordia.ca/irishlandscape/?p=92#h5p-19

4.2 Case Study: Understanding Irish Bogs

When you think of a bog, what comes to mind? For some, it may be a soggy field of different shades of brown and green – but there is much more to the story of the bog and what it offers to the Irish landscape.

Ireland's bogs are "freshwater wetlands" – in fact, Irish bogs are made up of 90% water and only 10% vegetation (The Peatlands n.d.). That 10% of the bog that comprises waterlogged plant materials, mud, and moss takes thousands of years to decompose (Banting 2002, 7). As the layers of vegetation build, they create new habitats for plants, insects, and other creatures who grow and thrive in boglands (Banting 2002, 7).

In Ireland, there are two types of bogs: Blanket bogs and Raised bogs:

- Blanket bogs formed around 4,000-5,000 years ago when heavy rain pushed iron in the soil deeper, creating an 'iron pan' that water could no longer penetrate. New rainfalls sat above the soil surface, and vegetation accumulated in this waterlogged area above the soil, eventually turning into peat and sphagnum moss (discussed below). Overtime, the peat and sphagnum moss spread like a blanket across parts of Ireland, hence the name 'blanket bog'.
- Raised bogs are around 10,000 years old, developing in the last glacial period when ice melted and retreated, leaving behind shallow lakes; as plants filled in the lakes, the vegetation elevated; further rainfall pushed nearby trees and vegetation into the bog, eventually growing into a dome-shape over time, reaching heights above water-level, hence the name 'raised bog'.

Two key aspects of bog vegetation in Ireland are peat and sphagnum moss:

Peat refers to decomposed vegetation under the surface, while the top layer of moss that forms on the bog is called sphagnum moss (Clara Bog Nature Reserve 2021). Sphagnum moss on the top of the bog is integral to the making of the bog; it is like a sponge that holds up to twenty times its weight, which allows for plants to grow on top of it. It simultaneously protects the bog materials underneath – as well as the many creatures that inhabit its ecosystem (Irish Peat Conservation Council. n.d.).

The vegetation material under the surface takes a long time to decompose because it is situated in a wet, acidic environment, where there is a lack of oxygen; over hundreds of years, the vegetation thickens and becomes peat (Clara Bog Nature Reserve 2021). Peat is an important resource for multiple reasons:

1. it classes as a fossil fuel and can be burned to create energy (including heating homes)

2. it stores water and carbon within it, making bogs an important carbon sink in relation to environmental sustainability – for example, peat soils store more carbon than in forests (IUCN, n.d.; UNEP, 2019)

Irish Peat Bogs are said to cover around 15% of Ireland's central and western farmlands alone (Banting 2002, 7). The sustainability of boglands is thus significant to the island; however, it has been under threat for decades, given the rise of industrial extraction of peat. Peat has historically been extracted from bogs in Ireland to create fuel to heat homes (otherwise known as 'turf'); the practice of extracting peat for fuel – a clear example of human geography – was once done manually (and in some cases is still done so in certain communities), but it is now largely done en masse using industrial machinery. The large-scale extraction of peat has had serious impacts on bogs throughout the island of Ireland, and in many cases has degraded them. Of these impacts, the purity of water in bogs is compromised by the extraction process, as well as the ability for bogs to act as carbon sinks, at a vital time in the world's confrontation with environmental crises.

Figure 4.2 *Photograph of turf – peat that has been extracted from bogs to be used a fuel source. © Gabriel Cassan, www.adobestock.com. View source. This photograph is included under Adobe's Education Licence – Standard Image terms.*

In County Offaly, the Bog of Allen is one of such bogs that has been impacted by industrial scale peat exploitation. In the next chapter, you will also learn about the impacts that the building of canals had on the Bog of Allen. Author and designer Ian Malaney has created an interactive **Bog Diary** that explores the changing state of the Bog of Allen over time, using creative elements including audio and video recordings. Irish artists like Malaney have documented and depicted the bog in unique and creative ways, helping us to engage with bogs not only as a physical phenomenon, but also as a cultural phenomenon. Check out the link to see photos and videos taken by Malaney!

The Drummin Bog

The Drummin Bog Project is a volunteer-led community education project that seeks to protect and restore the only raised bog in County Carlow. Drummin Bog has experienced damage from peat cutting and drainage, as well as invasive species, that impact the current state of the bog and its future (Drummin Bog Project n.d. a). The project's aims include restoring the bog to where it can actively form peat, and using the bog as an educational resource for surrounding communities through artistic strategies (i.e., artistic works and projects, as well as recording local stories and histories) (Drummin Bog Project n.d. a).

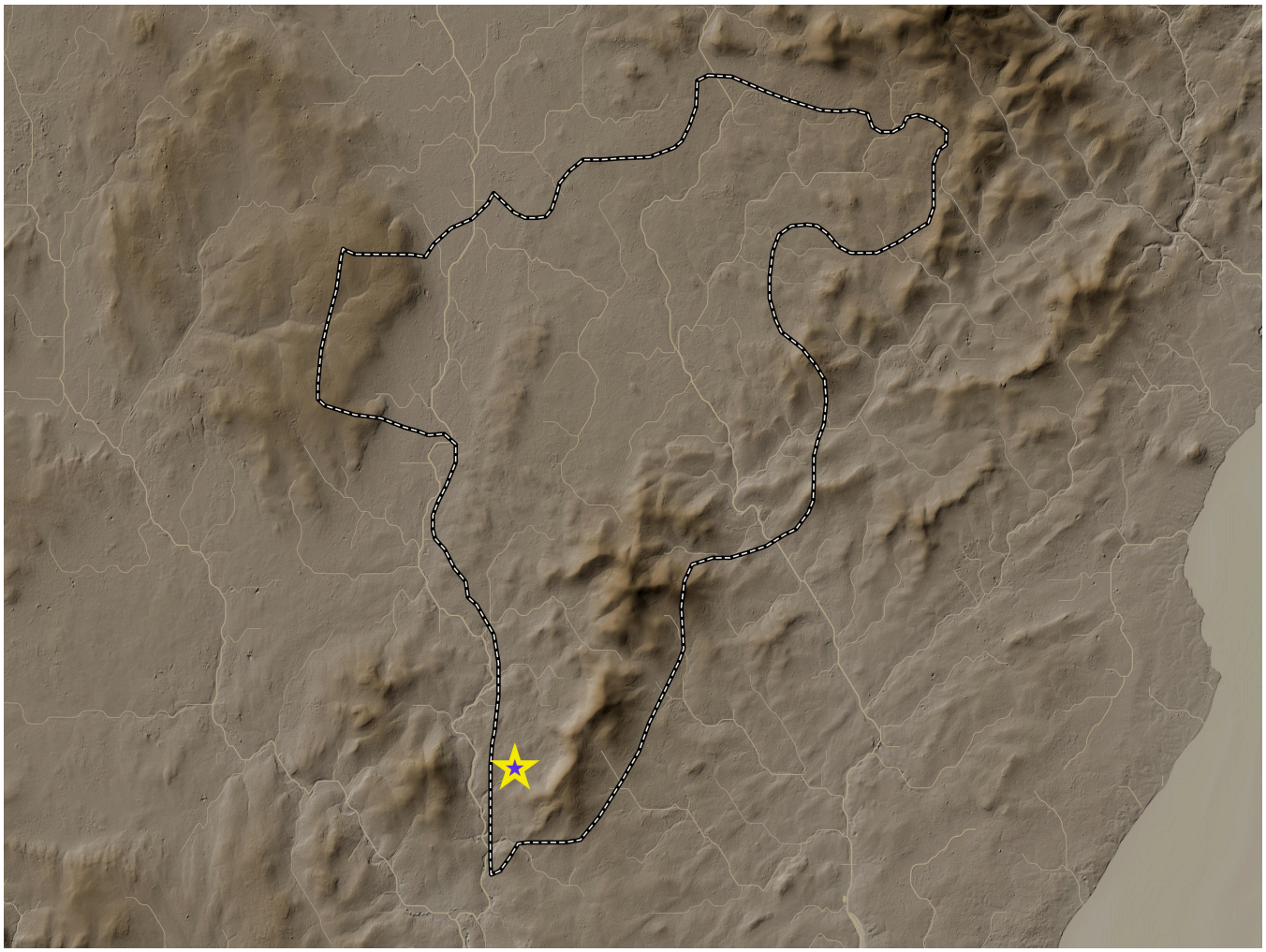


Figure 4.3 *Outline of County Carlow, in the Province of Leinster. © Yarr65, www.adobestock.com. View source. The yellow star was added by Katie Young, in August 2024, to indicate the location of Drummin Bog. This photograph is included under Adobe's Education Licence – Standard Image terms.*

The project has been funded by a range of donors, including Creative Ireland for an ecoarts project, which will include an ebook and exhibit. It has also been sponsored by the National Parks and Wildlife Service for physical restoration, including the re-wetting of the bog (Drummin Bog Project n.d. b), a process through which areas of bogs that were damaged through peat extraction would be repaired through actions such as blocking drainage areas to restore it to its earlier conditions (Bord na Móna 2021; Creative Ireland 2021).

During the Drummin Bog project, volunteers found several historical artifacts preserved by the bog, including a 5,000 year old piece of bogwood and 8,000 year old plantlife (Creative Ireland 2021). Bogs are important physical sites that help Irish people to learn more about the human and cultural aspects of the past.

Footage taken over Drummin Bog can be found on this website:
https://drumminbog.com/drone-video-views-of-drummin-bog/

Some cultural geographers draw on creative practices such as visual art, music, and dance in order to understand experiences of physical environments. In the Drummin Bog project, artistic works have been developed to help build community connections with the bog, and to understand and experience the bog in new ways. For example, the Drummin Bog project features the work of artist Mairead Holohan. Holohan received Ireland's *Artwork bursary* in order to research and create artworks based on their time living near and visiting the Drummin Bog. Their artworks draw on sustainable practices, such as using natural materials like handmade crayons and watercolours. Holohan also engages with the physical aspects of the bog to create artwork available to the community, such as engaging with the quietness of the bog to inspire their work, but also drawing on pigments/shades/colours from the bog to create a variety of sketches. You can learn more about Holohan's work through The Drummin Bog project, and explore more of their artworks on the project's website **here**.

Looking at Holohan's below artwork, what can you glean about the Drummin Bog through their artistic research and creative practice? Can cultural practice inform our understandings of physical and human geography?

Figure 4.4 *An example from Máiréad Holohan's sketchbooks from August 2021 to July 2022, depicting Drummin Bog. © Mairead Holohan. View Source. Included on the basis of fair dealing.*

Summary, References and Resources

Summary

In this chapter, we have seen the value that Ireland's natural landscapes bring to its people – including Lough Neagh's role in providing drinking water and a source for recreation for those living in Northern Ireland; likewise, we can see the value that bogs have across the island of Ireland in storing carbon and purifying water. Both bogs and lakes in Ireland, of course, sustain ecosystems important to the livelihood of the Irish landscape too.

We have seen how commercial interests, including farming practices, sand dredging, and peat extraction, have physical ramifications on Lough Neagh and Ireland's boglands. On one hand, there is a push for the financial gain that comes from extracting natural resources – such as peat and sand – that are used to propel industries that rely on easily sourced fuels and building materials. In this vein, there are many in the supply chain who financially benefit from, and/or rely on, these resources and their extraction as a source of income. For some, including those with turbary rights (i.e., cultural rights to extract peat within a community) and for farmers in Northern Ireland, the imposition of restrictions on farming or peat extraction practices runs counter to cultural practices embedded within community lives centered around farming or the cutting of turf.

In this chapter's case studies, we can see the value of the natural landscape in the physical, cultural, and human aspects of life for those living in and around these natural wonders. We have seen how communities have enacted protests, events, and applied for funding to resist environmental injustices, as well as efforts to enact the rebuilding of areas impacted by the physical interventions of corporations. Activists are also involved in educational programs to inform Irish youth of the impacts of commercial extraction in these areas; they also engage with politicians, appealing for policies and regulations that could curb the unnecessary negative (and at times irreversible) impacts on Ireland's lakes and bogs.

We can see the vital role that Irish lakes and bogs play in the future of the Irish landscape. For bogs, they can play a vital role in environmental sustainability as carbon sinks, and thus, their sustainability is crucial. Likewise, as Lough Neagh is a major source of drinking water for Northern Ireland, its degradation has real, physical impacts on the future livelihoods of both humans and animals in the region.

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CHAPTER FIVE: WATERWAYS OF IRELAND

Introduction

When we think of images of the Irish landscape – perhaps on television, in travel magazines, or in films – the main focus is often on green pastures, rolling green hills that capture the apt nickname for the island as the 'Emerald Isle'. As we have and will learn in this text, the Irish landscape is far more diverse than rolling green hills alone, as it is home to boglands, mountainous regions, major cityscapes, and networks of important waterways, including lakes, rivers, and coastal lands facing the Atlantic ocean and Irish sea.

In this chapter, we will explore two key waterways in Ireland – first, a naturally formed waterway, and second, a man-made waterway. These waterways physically intersect with each other: the Grand Canal connects the east coast with the west coast of Ireland from the River Liffey to the River Shannon, while the River Shannon connects the Grand Canal down to the Atlantic Ocean. Along the way, we will discover the physical, human, and cultural aspects of these waterways, asking how they shape economic and social movements, human lives, and the development of settlements in their wake. We will further explore myths and stories associated with these waterways. The stories and myths reveal the relationships between human lives, cultural practices, and physical aspects of the landscape that each contribute to the making of the Irish landscape.

This chapter focuses on the case studies of the River Shannon and the Grand Canal in Ireland. In Figure 5.1 below, Blueways Ireland has mapped out a variety of waterways in Ireland. You can identify the River Shannon as the long river the runs north to south on the eastern side of the island, spanning from Limerick city up to Lough Allen (the area shaded in orange). Also in Figure 5.1, you can see two waterways that run east to west in the centre of the island; these are the two man-made canals, with the Royal Canal running to the north and the Grand Canal running to the south. As you can see, both canals connect Dublin with the River Shannon.

The River Shannon and the Grand Canal are two examples selected from a much broader range of lakes, rivers and canals that run throughout the country. Within this text, you will encounter other major bodies of water and waterways that are significant to Ireland – for example, in **Chapter 4** we learned about Lough Neagh in Northern Ireland, and in **Chapter 3** we learned about the River Liffey that runs between Dublin city and the Wicklow Mountains.

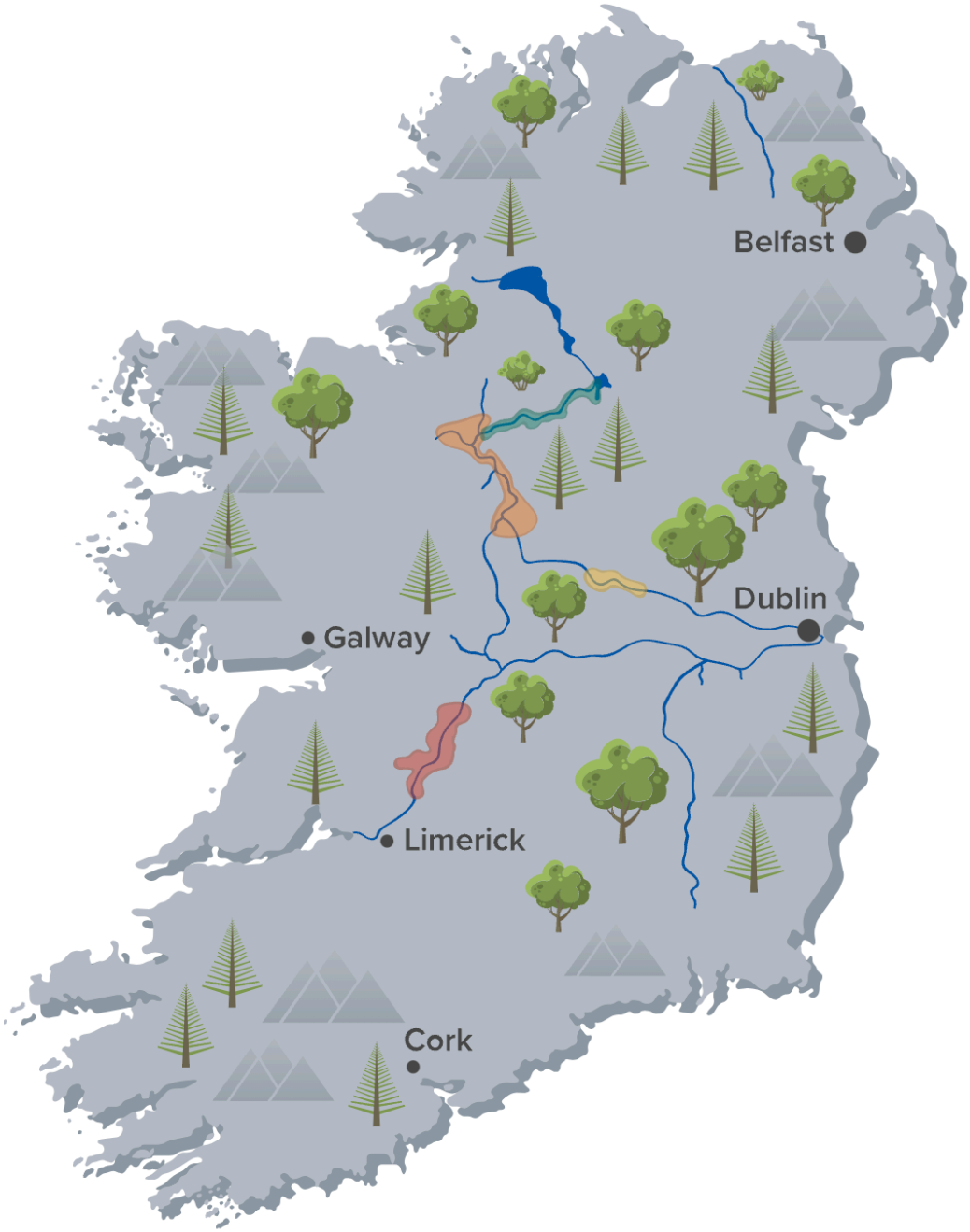

Figure 5.1 *Image of Irish man-made waterways and connecting rivers created by Blueways Ireland. © Blueways Ireland. View Source This photograph is included on the basis of fair dealing.*

5.1 Case Study: River Shannon

The River Shannon is situated on the west coast of Ireland and runs north to south from County Cavan down through County Kerry. It is the longest river on the Island of Ireland, measuring 386 kilometers in length (Banting 2002, 8). It flows downwards from County Cavan to the mouth of the Atlantic Ocean via Limerick city. Along the way, the River Shannon passes through three major lakes: Lough Allen, Lough Ree and Lough Derg. There are many towns, villages and cities that line the River Shannon as well, including some you may have heard of, such as Enniskillen in county Fermanagh, Athlone on the border of Counties Roscommon and Westmeath, Killaloe on Lough Derg in County Clare, and Limerick city in County Limerick.

***Figure* 5.2**
Photograph of the River Shannon, taken by Katie Young. Image holds the same copyright as the textbook (CC-BY-4.0).

Where does the River Shannon begin? Believe it or not, there is more than one theory on the matter; the discrepencies in pin-pointing where the River Shannon begins tells us more about the significance of both cultural belief systems as well as geographic discovery and exploration. There are variations of the mythical tale of the origins of the River Shannon:

One such story suggests that the beginning of the River is at the Shannon Pot, a small pool of water situated in County Cavan. It is said that the river is named after Síonnan (the granddaughter of Lír, the Celtic god of the sea) who visited the pool of the Shannon Pot to catch the Salmon of Wisdom (Gibling 2021, 112; Cuilcagh Lakelands Geopark n.d.). The story goes that the Salmon of Wisdom was angered, and streams were created that both developed the River Shannon, exiting into the Atlantic Ocean, drowning Síonnan in the process.

The other theory, put forth through academic research undertaken by geologists and geographers, is that the River Shannon actually begins at Cuilcagh Mountain. This is because much of the bedrock of Ireland is made up of limestone, formed from glaciers, that allows for underground sinkholes and caves as well as underground streams where water flows (Gibling 2021, 112). Much of the northern portion of the River Shannon is thus actually underground, and surfaces above through a limestone sinkhole in the small pool of Shannon Pot that appears smooth and still (Gibling 2021, 112). Streams and rivers that flow from Cuilcagh Mountain seep into blanket bogs, and then underground into limestone bedrock, moving through networks of hidden caves before resurfacing at Shannon Pot (Cuilcagh Lakelands Geopark 2022; Shannon Pot, Cuilcagh Lakelands Geopark 2021).

Through the story of the Síonnan, we can see how people have made sense of the emergence of the largest river in Ireland, but we can also see how the physical landscape itself tells other stories, connecting the River Shannon that humans can feel and touch with a deeper network that runs underground, and connects with other major geographical features such as major mountains and bogs.

***Figure* 5.3**
Photograph of the River Shannon, taken by Katie Young. Image holds the same copyright as the textbook (CC-BY-4.0).

People and the River

Over time, the River Shannon has had many different purposes and functions, often simultaneously. Of course, being a river that connects large swaths of the island from north to south along the western coast, it has been an important point of trade and settlement across centuries. The river was always a major attraction for settlers to trade, beginning as far back as before Viking settlement in the mouth of the River Shannon in the ninth century, including the trade of coins and other metals (The Hunt Museum 2022). You may see some similarities here in relation to the settlement patterns of Dublin on the eastern coast, which was also established by Vikings in the same period – this is an attribute that both the River Liffey and the River Shannon share, underscoring the significance of waterways to trade, settlement and colonialism.

***Figure* 5.4**
Photograph of the River Shannon, taken by Katie Young. Image holds the same copyright as the textbook (CC-BY-4.0).

Throughout the River Shannon, its inhabitants past and present have used the river as a source of recreation and sport. For example, along the river and in the three major connecting lakes, you will find a range of activities including boating, fishing, kayaking and swimming. Those who fish on the

river may find trout, salmon, and pike. Tourists also take day trips or stay in hotels along the river and in its lakes, with well-known summer destinations including Killaloe, which brings local and foreign tourists each summer to stay in the beautiful lakeside resorts.

Perhaps the River Shannon has had the greatest impact on the nation at large in the early twentieth century, when the Ardnacrusha power station in County Clare was developed. It was initially proposed by Thomas McLaughlin in 1925 and built in 1927; known as the Shannon Hydro-electric Scheme, the damming of the River Shannon provided energy throughout the Republic, and employed 5,000 workers in its construction. It brought light to cities and towns, as well as heat and power in the early to mid twentieth century. We can see the real impacts that the river itself provided to the making of modern life across the island in the twentieth century, bringing amenities ranging from electric lamps to electric irons.

Interactive Activity: Notable locations along the River Shannon

Click on any of the green symbols below to learn about various locations along the River Shannon!

An interactive H5P element has been excluded from this version of the text. You can view it online here:
https://opentextbooks.concordia.ca/irishlandscape/?p=127#h5p-13

Figure 5.5 Map showing the different waterways of Ireland and main county towns. © lesniewski, www.adobestock.com. **View source**. *This photograph is included under Adobe's Education Licence – Standard Image terms.*

5.2 Case Study: Grand Canal

Unlike the River Shannon, with its underground origins dating back to glacial formations, the Grand Canal is a man-made waterway. It spans from the east coast of the island, beginning in Dublin City, to the city of Shannon Harbour in County Offaly – where it connects with the River Shannon.

The Royal and Grand canals were developed in the early 19th century, connecting Dublin to the River Shannon. Along the way, the canals passed through major towns and trading sites across the midlands, further increasing commercial trade between the east and west. In this chapter, we will learn more about the Grand Canal and the impacts that its development had on the environment, trade and culture.

The Grand Canal is one of two major canal developments in Ireland that emerged during the nineteenth century. The Grand Canal and the Royal Canal projects both spanned from the east to west of the country and provided new opportunities for trade, employment, travel, and leisure. While both canals take the same east-to-west path across Ireland from the Irish Sea to towards the Atlantic Ocean, the Grand Canal was conceived initially, and the Royal Canal was developed in direct competition. The Royal Canal was commissioned in the 1780s, thirty years after initial construction of the Grand Canal, due to growing frustrations of the speed of construction taking place on the Grand Canal (Coyle 2021, 26). The Grand Canal takes a south-westerly path towards the River Shannon while the Royal Canal was built to the north of the Grand Canal, following a parallel path. Once complete, the Grand Canal spanned 132 kilometers across the middle of Ireland (Kerrigan 2023, 9).

Figure 5.6
Photograph taken where the River Liffey meets the lock to enter the Grand Canal, in Dublin City. Image holds the same copyright as the textbook (CC-BY-4.0).

It was during the mid-eighteenth century that plans began to develop within the Commissioners of Inland Navigation to construct a canal linking Dublin to the River Shannon; the building of the canal began in 1755 and reached the River Shannon in 1804, taking nearly fifty years to complete (Coyle 2021, 24-26). Just six years later, by 1810, the Grand Canal was reaching 200,000 tons of trade per year (Kerrigan 2023 18-19).

While the Grand Canal was popular in the early nineteenth century, by the mid-1820s railways were emerging, with the first steamer connecting Dublin to Limerick; as you can imagine, the continued development of train service in Ireland in the subsequent decades meant competition with the Grand Canal both in terms of the movement of people and the trading of goods. The canals decline in usage in the mid-nineteenth century, in part due to the results of mass emigration because of famine, but also due to the rise of train transportation (Coyle 2021, 27). Canals ceased commercial use in the 1950s and by 1954, the tides changed with the development of the Waterways Association of Ireland, a group with volunteers who worked to promote the canals including their eventual restoration (Coyle 2021, 27) The last commercial canal boat to run on the Grand Canal was in May 1960 (Kerrigan 2023, 20).

One or more interactive elements has been excluded from this version of the text. You can view them online here: ***https://opentextbooks.concordia.ca/irishlandscape/?p=133#oembed-1***

Figure 5.7 Video from the location where the Grand Canal meets the River Liffey at the Sea Locks, taken by Katie Young. *Video holds the same copyright as the textbook* (CC-BY-4.0).

Building the Grand Canal

Who built the Grand Canal? Those who built the canals were referred to as 'navvies', short for canal navigators. Navvies were recruited by canal contractors from farms and small households across the country. Many navvies were unskilled labourers who migrated to the canal building sites, seeking work. For those unskilled labourers, some were motivated to work on the canals due to hunger, poverty, and lack of employment in their local areas. Other navvies were hired because of their expertise in masonry, bricklaying, carpentry, and management (Coyle 2021, 26).

Others were hired for short-term work when the building of the canal passed through their area, and worked on digging the canal, blasting rock, and waterproofing the newly built portion of the canal (Coyle 2021, 26). Navvies dug the canals by hand with tools such as spades and pickaxes, and over time became very skilled at their work; those skills were taken with them as they emigrated to England, Scotland, and the United States in subsequent decades (Coyle 2021, 26).

Canal Economies

Ireland's economy changed with the development of the Grand Canal, as items such as grain, turf, food, building materials, and tools were shipped between the east and west coast (Kerrigan 2023, 9). New industries also emerged, including working on the canal, working to build the canal, and working in hospitality around the canal to service those moving through the area via canal boats (Kerrigan 2023, 10). At the same time, farmers and businesses were able to ship goods easily to major cities in ways that were not possible previously, expanding the reach of markets for those living in Ireland's midlands (Kerrigan 2023, 11).

Caitríona Devery writes that historical remnants of the Grand Canal's yesteryears are embedded within the physical landscape through material culture; for example, in the village of Pollagh in County Offaly, the Pollagh brick industry took off through the mass transportation of locally made bricks to be shipped and subsequently sold in major cities like

Dublin, with 14 million bricks being sent to Dublin each year in the 1840s (Devery 2021). In fact, while many areas suffered during the famine years, the brick industry in this village saw the growth of the area post-famine (Devery 2021). When the Grand Canal was slowly converted into a greenway for leisure, elements of the brick trade emerged, including bricks found on the sides of excavated paths, but bricks from Pollagh can also be found across the country, from brick facades of houses in Tullamore to interior brick walls in Dublin houses (Devery 2021).

Figure 5.8
Photograph of the Grand Canal in Dublin City, taken by Katie Young. Image holds the same copyright as the textbook (CC-BY-4.0).

Another major propeller of industry on the canals was Guinness, a popular Irish alcoholic stout, that has ties with the development of the Grand Canal. Guinness stout emerged in the mid-eighteenth century, and was originally transported in the country via horses; of course, when the Grand Canal opened in Dublin at the end of the eighteenth century, Guinness quickly began to transport raw materials, casks and Guinness itself across the country via the Grand Canal (Guinness Storehouse 2023). On the journey east to west from Shannon Harbour, malt barley was shipped towards the Guinness Brewery for processing, while in reverse Guinness stout was shipped across the canal waterway reaching towns and villages along the way (Waterways Ireland – Guinness 2023).

The Grand Canal Company formed in 1772 and St James' Gate was chosen as the starting point of the canal (Kerrigan 2023, 18). There was a semi-circular harbour just off of where the Guinness Storehouse is located, and Guinness would not only ship their stout across the canal waterways from this location, but they also used the canal water of the Grand Canal to make Guinness stout (Dublin Canals n.d.).

Guinness allowed for the longevity of the Grand Canal well after its rise of popularity in the early nineteenth century. In fact, the last canal boat to ship trade on the Grand Canal in 1960 was shipping Guinness, a testament to the economic drive of Guinness within the Grand Canal economy. We can see how both the trade of raw materials as well as finished products meant that Guinness benefited from these inland waterways, but also how the Grand Canal itself provided drinking water that was used for the making of Guinness in its early stages.

Changing Landscape

The building of the Grand Canal and its surrounding amenities altered the landscape along its path – of course through the creation of a canal itself, but also the surrounding buildings that emerged, including storage houses that stored goods to be collected for trade by the canal boats, lock houses, hotels, pubs and restaurants that emerged along the canal. Towns were significantly altered by the arrival of the Grand Canal. For example, when the Grand Canal reached the town of Tullamore in 1799, the town changed with the building of a hotel, multiple warehouses, a harbour and drydock; when the canal reached the Shannon River five years later, Tullamore became an important market for trade (Freeman 2021, 120).

Of course, the physical landscape was altered permanently by the digging of the Grand Canal, too. Part of what made the building of the Grand Canal a lengthy project was that it had to cut through the Bog of Allen, one of Ireland's famous large raised bogs, an endeavor that took the project five years (Kerrigan 2023, 18). The Grand Canal thus altered the makeup of one of Ireland's largest bogs, changing the landscape of Ireland's midlands region.

***Figure* 5.9**
Photograph of the Grand Canal in Dublin City, taken by Katie Young. Image holds the same copyright as the textbook (CC-BY-4.0).

In recent years, work has been undertaken to rejuvenate and restore the Grand Canal for a new purpose as a greenway for leisure, including cycling and walking along the canal's towpath. The renovations reveal the changing role that canals play in the life of Irish citizens and visitors, from an area of trade to an area of recreation. The development of the greenway is a large undertaking and has been done in chunks over large periods of time. The Grand Canal greenway projects are a relatively new endeavour in relation to the Royal Canal preservation and restoration projects that have a longer history in Ireland.

Summary, References, and Resources

Summary

In this chapter, we have learned about the place of man-made and naturally occurring waterways in Ireland, focussing on the cases of the River Shannon and the Grand Canal. These two waterways have shaped Ireland in relation to settlements and the growth of particular towns and villages, and has afforded the creation of jobs through the work of navvies on the Grand Canal or workers in the Ardnacrusha project. There is also cultural value in these waterways, as is evident in the myths that emerge in relation to the Shannon Pot, but also the remnants of material culture that exist today from the building of the Grand Canal across Ireland, including the bricks made and shipped from Pollagh to create homes and buildings in Ireland's major cities.

Waterways change in use and function over time. While the River Shannon once provided the majority of electricity to Ireland, it now features as a centre of leisure including swimming, kayaking, fishing, and river walks; likewise, the Grand Canal – that once focussed on trade – is now developing into a greenway, affording opportunities for new generations to chart these waterways through walking, running and cycling. In this sense, waterways are always in-flux, changing the landscape over time, but also changing in their relationship to the surrounding human environment across generations.

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CHAPTER SIX: MOUNTAINS OF IRELAND

Introduction

The island of Ireland is home to many mountains, from Cuilcagh Mountain that forms the underground beginnings of the River Shannon, to Ireland's largest mountain, Macgillycuddy Reeks. As well as forming an important visual element of the Irish landscape, mountains are also an important aspect of the landscape for economic and social reasons. Mountains have provided safe haven for the Irish during battles and wars, have formed important cultural festivals such as the Puck Fair in County Kerry, and are also important for farming, including goat farming as well as forestry, where mountains have remained an important site for timber used to build furniture and homes. Mountains are home to diverse wildlife including insects, birds, and other animals. They are also important sites for tourism, as many travellers come to Ireland to hike Irish mountains.

As we will see from the next two case studies, these many elements of mountain life intersect: farmers grapple with impacts from tourists; colonists have circumvented local knowledge of navigation of mountains by building roads within them; environmental impacts have changed the landscape for wildlife in the mountain regions; and political and social changes have had real impacts on the sustainability of mountain farming in the Irish economy.

Figure 6.1 *Map of Ireland showing mountain ranges. © EmLion, www.adobestock.com. View source. This photograph is included under Adobe's Education Licence – Standard Image terms.*

6.1 Case Study: Wicklow Mountains

In **Chapter One**, we talked about the Iapetus Suture, where two continents collided into one. Many of the mountains that cover Ireland's landscape today developed during this moment in time, and the Wicklow Mountains are no exception.

In Wicklow, large areas of molten rock pushed upwards into mudstone and sandstone rocks; the subsequent Ice Age saw glaciation that resulted in U-shaped valleys indicative of the Wicklow Mountains, as well as rounded mountain peaks, corrie lakes, and boulder clay (Biodiversity of Wicklow County 2008). Much of the Wicklow mountains are covered in a blanket of peat, or a blanket bog (Biodiversity of Wicklow County 2008). In the below map (Figure 6.2), observe the diversity of the landscape in the Wicklow Mountains, the shows corrie lakes, forested areas and bogland, as well as the elevation of various peaks in the Wicklow Mountains (shaded in orange):

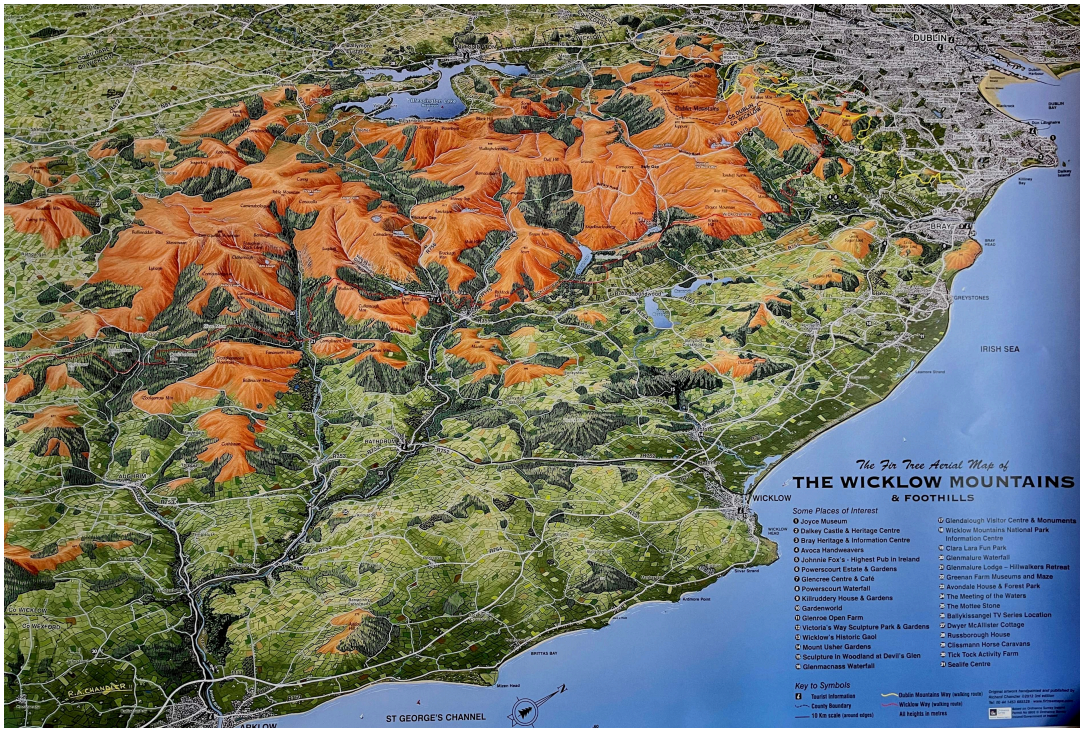

Figure 6.2 *Map of Wicklow Mountains. © Richard Chandler. For Tree Maps. Image shown is a photograph of the purchased printed map, taken by Katie Young in August 2024. Map included on the basis of fair dealing.*

The Wicklow Mountains are located south of Dublin city on the eastern side of the island of Ireland. The River Liffey, that we learned about in **Chapter 3**, flows from the Wicklow Mountains, and thus the Wicklow mountains feeds both the River Liffey but also its connecting man-made waterways such as the Grand Canal discussed in **Chapter Five**.

Economically, the Wicklow Mountains are one of Ireland's most visited tourist sites, in part due to its beauty and history, but also due to its proximity to Dublin city, where the majority of tourists arrive into the country. Tourists who arrive in Wicklow are afforded a range of opportunities, including tours of historic sites such as Glendalough (discussed below) but also leisure activities such as cycling, walking, hiking, and visiting historical sites independently.

Figure 6.3 *Lough Tay, Wicklow Mountains. © Monica, www.adobestock.com. View source. This photograph is included under Adobe's Education Licence – Standard Image terms.*

Glendalough

Glendalough is a U-shaped valley that formed during the last Ice Age. The Wicklow Mountains – that emerged during the forming of Ireland – experienced a build-up of ice and snow culminating in glaciers; as these glaciers melted, their weight crushed the rocks beneath them, creating cracks that led to erosion through the processes of plucking and abrasion. Plucking is a process of erosion, where meltwater enters cracks in the bedrock, is frozen, and the rock is then torn (or plucked) following the movement of the glacier. Abrasion is erosion through which a glacier's load of rocks scrape and wear away the floor and sides of a valley (Dastrup 2020).

As the erosion took place over time, it formed widening valleys in V and U shapes, and this is the case for Glendalough, which appears U-shaped with steep cliffs on either side that flow into a flattened floor.

Glendalough Monastic Site

Glendalough, which means "Valley of the Two Lakes", is not only an important landscape, but is also home to an important historical and religious site too. Glendalough's monastic site, located just to the west of the village of Laragh, is an example of an early medieval ecclesiastical landscape. This means that the site is not only one building but rather a series of sites that link to Saint Kevin, a religious figure with origins in the area from the 6th century. In fact, it is known as a 'Monastic City', and includes a round tower, medieval stone churches, and decorated crosses, as well as a small-man-made cave in a cliff where St Kevin is said to have lived and prayed. During the 6th century, Glendalough was famous across Europe as a sought-after religious centre (Glendalough Monastic Site and Visitor Centre, Heritage Ireland. n.d.).

Interactive Video: Glendalough Monastic Site

An interactive H5P element has been excluded from this version of the text. You can view it online here:
https://opentextbooks.concordia.ca/irishlandscape/?p=154#h5p-14

Figure 6.4 *Glendalough: Power, Prayer and Pilgrimage. © National Museum of Ireland, available on Youtube; included on the basis of the Standard Youtube License.*

During the 6th century, Saint Kevin lived in the Wicklow mountains as a hermit, but soon gathered followers and subsequently established a monastery there. This became an important pilgrimage site at the time, and many visited because they believed the area to be holy. Due to its popularity it was also a site of invasion, including raids from Vikings and being burned by the English in 1398 (Monastic Ireland 2014). Despite these attempts, many of the original buildings from the "Monastic City" remain today and are an important part of the material history of Ireland.

Mining in Glendalough

As we learned above, Glendalough formed millions of years ago as a result of Iapetus Suture in Ireland. The coming together of these two continents in Wicklow created a large granite mass. As the granite cooled, cracks formed that were filled with hot fluids that created different types of minerals including lead, zinc, and silver (Our Wicklow Heritage 2020a).

In the late eighteenth century and into the early nineteenth century, mining commenced in Glendalough and surrounding areas to extract these minerals. Interestingly, the mining process led to an important physical change in the landscape: during the mid-nineteenth century, the Mining Company of Ireland planted around one million trees in Glandalough, as timber was needed to prop up mines but also because timber could be sold for profit (Critchley 2020). However, many of these trees were left untouched, as the mining industry in Wicklow ceased in the early twentieth century. In other words, the era of mining in Glendalough turned these mountains into the tree-lined Wicklow mountains landscape that it is known for today. These trees support Wicklow's rich biodiversity, including noteworthy birds such as Goodsanders and Merlins (National Parks Wicklow Nature Conservation n.d).

Wicklow's historical past

What can a road reveal about political geographies? Military road in county Wicklow may look like a transportation infrastructure for tourist cars and buses today, connecting Dublin visitors to the Wicklow Mountains for a day. A closer look reveals the intersections of physical, human, and cultural geography we have sought to explore in this text.

In **Chapter Two**, we discussed the long history of British colonial rule in Ireland and its impacts on the physical makeup of the landscape, in particular the ways that county lines were drawn on the map. Here, we can see how Irish resistance to colonial rule drew on knowledge of the physical landscape, but also how British colonial rule implemented physical changes to the landscape to enact control in new ways.

The Irish Rebellion of 1798 had an impact on the landscape of Wicklow, where an uprising of United Irishmen aimed to cut ties with Britain and attempted to overthrow British strongholds in Dublin. When they were unsuccessful, they lived in the mountains of Wicklow as this area had no navigable road and was unfamiliar to the British; in other words, the United Irishmen used their knowledge of the landscape including its peaks and valleys to hide and plan attacks on British forces. Following the rebellion, between 1801 and 1809, the British built a 'military road' in Wicklow so that it would be more easily navigable in the event of future conflict. Today it is a popular road for tourists to travel to see the Wicklow mountains (Our Wicklow Heritage 2020b)

Wicklow's present

Today, farmers work on the hills of Wicklow mountains, farming sheep and goats who live on and graze the pastures of this terrain; thus, Wicklow mountains play an important role in farming as well, with cool temperatures and high elevation allowing for grasses to grow for livestock as well as

providing water and shelter for animals too. Climate change, including resulting fires on the mountains, is having an impact on these farming practices and the habitats of sheep, goats, and other creatures who inhabit this space.

6.2 Case Study: MacGillycuddy Reeks

The tallest mountain range in Ireland is MacGillycuddy Reeks. It is located on Iveragh peninsula in County Kerry on the south-west coast of the island, and spans nineteen kilometers in length (Lynch 2020). In the middle of the range if Carrauntoohil, the highest point of this mountain range, reaching 1038.6 metres tall (Lynch 2020). Not only is MacGillycuddy Reeks home to the highest peak in Ireland, but it is also home to the highest lake, Lake Cummeenoughter, that sits at the top of the reeks.

If you remember back to our discussion on Iapetus Suture in **Chapter One**, you will recall how the current island of Ireland emerged through the merging of two continents. MacGillycuddy Reeks is an example of a fold mountain; when the earth's plates collided and pushed together, rocks and debris compressed into a folded rocky mountain range. The rocks that makeup MacGillycuddy Reeks are a mixture of sandstone and siltstone, and date from the Devonian period (385 million years ago) when Ireland was in a hot equatorial setting (Discover Iveragh – Geology n.d.).

Figure 6.5 *Image of MacGillycuddy Reeks. © J, Adobe Stock, www.adobestock.com. View source. This photograph is included under Adobe's Education Licence – Standard Image terms.*

During the last ice age in Ireland, glaciation resulting in plucking and abrasion resulted in U-shaped valleys, a similar process discussed in relation to the Wicklow Mountains earlier in this chapter. One of the most famous U-Shaped valleys in Ireland is found in MacGillycuddy Reeks: The Gap of Dunloe. Central to Ireland's tourist industry, it is very possible you have seen the Gap of Dunloe's imagery on commercials, photos, or tourist brochures and magazines, even if you have not visited this area nor heard of it before. The Gap of Dunloe features steep walls and a flat floor, dividing Macgillycuddy Reeks from the nearby purple mountains to its east.

As the reeks were glaciated, they not only carved out U-Shaped valleys, but different types of features in the landform. For example, within MacGillycuddy Reeks, there are deep corries, created through the erosion of underlying rock as ice and rocks move that creates a depression, as seen in the Eagle's Nest on the reeks; or sharp ridges, found in the reeks on Beenkeragh Ridge.

The below map, from *John Bartholomew & Sons in* 1949, shows the elevation of Macgillycuddy Reeks in various graduations of orange. Can you see the various corries and lakes within the map? Based on our discussion of the the reeks and Purple Mountains, can you locate the Gap of Dunloe?:

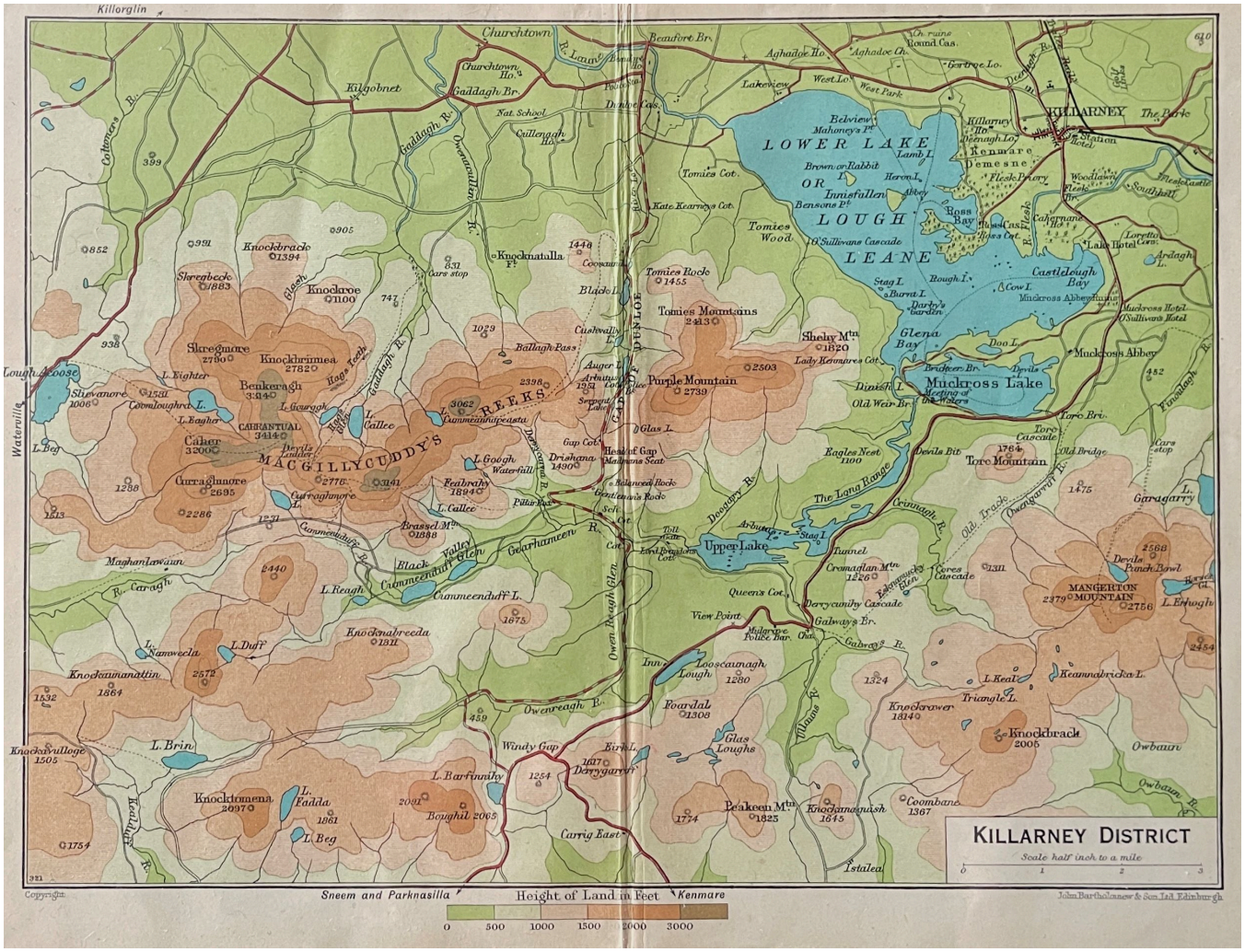

Figure 6.6 *Map of Macgillycuddy Reeks. © John Bartholomew & Sons, Edinburgh, 1949. Image taken of the purchased printed map by Katie Young in August 2024. Included on the basis of fair dealing.*

Economy on the Reeks

MacGillycuddy reeks are one of the top tourist destinations in Ireland, and many travel to Kerry to see this rocky landscape, including to walk, hike, and mountaineer on its peaks. Much of the land on MacGillycuddy reeks is privately owned, and so private landowners (majority sheep farmers) and tourists have to contend with each other as they engage with this mountain range for different purposes.

Because the land of the reeks is privately owned, recreational users have no legal right to the land, and thus it is rural landowners who have granted access to their land; with increasing activity from tourists, landowners are faced with frustrations over the way their land is being impacted and treated by tourists traversing the space (Mountaineering Ireland 2014). For example, visitors to the area can trample vegetation on the path, erode land, and frighten sheep or cattle on the mountain, especially when they are accompanied by dogs; they can also leave litter that has a negative impact on the surrounding habitat. The Mountain Access program was proposed in 2014 to compromise and accommodate the interests of private landowners alongside those who seek to use the land for recreational purposes (MacGillycuddy Reeks Kerry n.d.). Some of the interventions include educational programmes and awareness campaigns for recreational visitors, spearheaded by mountaineering groups in the region, but also training farmers in relation to footpath erosion in the area and steps for its mitigation.

Figure 6.7 *Image of MacGillycuddy Reeks. © pearlbucknall, Adobe Stock, www.adobestock.com. View source. This photograph is included under Adobe's Education Licence – Standard Image terms.*

As Ireland joined the European Union (EU) in 1973, EU law also applied in relation to conservation work, and as such, the EU has designated portions of the reeks as 'Special Areas of Conservation' (Office of the Attorney General 2023). As such, the reeks are part of an EU project called the Agricultural European Innovation Partnership (EIP-AGRI); this program asked farmers in the area about the issues they were facing, and worked to collaborate with landowners to develop new ways of preserving and enhancing their habitats (Macgillycuddy's Reeks Kerry, 2023). For example, landowners are being trained on how to handle invasive species, and are also financially rewarded in relation to scores given for enacting conservation measures on their land (Macgillycuddy's Reeks Kerry, n.d.).

One or more interactive elements has been excluded from this version of the text. You can view them online here: ***https://opentextbooks.concordia.ca/irishlandscape/?p=158#oembed-1***

Figure 6.8 EIP-AGRI Participating Farmer Video Blog. © CAP Network Ireland (Ireland's Sustainable Agriculture and Rural Innovation Network), available on Youtube; *included on the basis of the Standard YouTube License.*

Similar to the case of Wicklow Mountains, MacGillycuddy Reeks have been impacted by British colonialism, but in this case, rather than the building of a military road, the outcome was an important cultural practice on the reeks. In the town of Killorglin, County Kerry, there is a festival that takes place each August; it is said that it may have emerged through pagan or early Christian festivals, however it is also believed that while the English were pillaging the Irish countryside in Kerry at the foot of the MacGillycuddy Reeks during the Cromwellian conquest in the mid-17 century, they disrupted a herd of goats grazing on the upland (Puck Fair – History). These goats fled, most to the mountains, with one goat running to Killorglin, which is said to have alerted residents of the impending danger. The work of this 'Puck' goat has since been celebrated each August in the town, an event that includes parades, live music, and the crowning of a new goat each year (Puck Fair – History).

Watch the below video from 4:00 minutes to see an overview of the festivities followed by the coronation of Puck in 2017. You may notice instruments, singing, parade floats and costumes, as well as a speech by the Queen of Puck Fair in four languages. When watching this video, consider how the physical geography of Kerry has grown to integrate with the cultural geography of areas like Killorglin:

One or more interactive elements has been excluded from this version of the text. You can view them online here: **https://opentextbooks.concordia.ca/irishlandscape/?p=158#oembed-2**

Figure 6.9 Puck Fair Parade 2017, Episode 6, "The Coronation" © Puck Fair (Official), available on Youtube; *included on the basis of the Standard YouTube License.*

Summary, References, and Resources

Summary

Irish Mountains present a unique case study in the wide ranging cultural, historic, and physical aspects of geography in the region. Physically, both Wicklow Mountains and MacGillycuddy Reeks reveal the significance of Iapetus Suture and the ice age to the mountainous landscapes across the island of Ireland, revealing the development of drastic U-Shaped valleys that have become iconic to imagery of the region. We can also see how physical changes take place in Irish mountains over time – for example with the forestation of Wicklow mountains due to mining as an approach to curb land erosion, but also the more recent impacts of recreational tourism on Macgillycuddy reeks as it threatens to erode the land through heavily used footpaths.

Culturally, we can see the importance of mountains to religious life in Ireland, considering that Glendalough was once a site of pilgrimage attracting visitors from across Europe, and continuing to attract visitors to the Monastic city site today in honour of Saint Kevin. We can also see how both MacGillycuddy Reeks and Wicklow mountains were impacted by British colonial conflict; in Wicklow, Irish soldiers hid within the mountains, drawing on their knowledge of the region, to circumvent attacks, yet this ultimately led to colonial construction of a road in the Wicklow mountains for future access, permanently altering the landscape. In Macgillycuddy Reeks, cultural festivals such as Puck Fair are said to have emerged through British invasion in the region, again grounding these mountainous landscapes as key sites of power, control, and community belonging.

Larger bodies such as UNESCO, the EU, and government organizations have recognised the importance of these mountain landscapes, and efforts such as the EIP-AGRI have been enacted to protect these landscapes for the future. While Ireland may not have the world's tallest mountains, this chapter has shown that mountain landscapes lend important insights relevant to our understandings of Irish physical, human, and cultural geographies.

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CHAPTER SEVEN: CREATING FROM THE LANDSCAPE

Introduction

This chapter considers the intersections of the physical and human landscape in relation to what is 'made', both creatively in relation to crafts and arts but also in terms of drink and food that remains iconic to the island of Ireland.

Questions you may consider in this chapter include:

- what do products created from the landscape tell us about the making of the Irish landscape, including its physical and human elements?
- how does the process of 'making' from the landscape, shape the landscape, and the people who inhabit it?
- how are these elements developed from the Irish landscape depicted as reflecting Irish identity and culture over time?

We can already garner aspects of the landscape that have been physically shaped by such items. You might remember our discussion of the drink Guinness in **Chapter 5**; Guinness is a stout alcoholic beverage that uses barley, combining malted and roasted unmalted barley. It was integral to the development of the Grand Canal, which connected trade from the east to west of the Republic of Ireland.

In this chapter, we will consider the ways in which fashion reflects the human and physical landscape through the case study of the Aran Jumper. We will also explore how the physical landscape is drawn from to create foodstuff such as butter, that is marketed as being iconic to the Irish identity, sold and distributed within the country and abroad. At the same time, we can reflect on how these processes impact the future of the very landscape it advertises.

7.1 Case Study: The Aran Sweater

When you think of an iconic piece of Irish ware, what comes to mind? You may be familiar with a wool knitted sweater that comes in many varieties of patterns and colours. This kind of sweater is available in quintessential Irish clothing shops including The Aran Sweater Market but also available in tourist shops throughout the island, as well as being available for sale in gift shops and airport lounges the country over. Aran sweaters are also important cultural artifacts, and can be found in important museums and galleries domestically and nationally. What is this iconic sweater, and how does it connect to the making of the Irish landscape?

Figure 7.1 *Photograph of an Aran sweater taken by Katie Young. This image holds the same copyright of the book* (CC-BY-4.0).

The Aran Islands comprise three islands off of the coast of Galway Bay in the Atlantic ocean. The islands are named Inis Oírr, Inis Mór, and Inis Meáin. Given the water-locked location of the Aran islands, the area has historically relied on a strong fishing industry that continues to this day. Aran sweaters first emerged in the late 1800s, and were knitted by the wives of fishermen for use when they were out at sea (Corrigan 2019, Aran Sweater Direct).

Historically, Aran sweaters were made of local wool from lambs which is coarse in texture and water resistant (Corrigan 2019, Aran Sweater Direct). The wool itself was 'unscoured' meaning that it maintained natural oils that afforded water resistance (Aran Island 2024). The patterns of Aran sweaters have specific references to the Aran islands landscape. For example, the diamond stitches are said to represent farm fields of the islands, and some diamond stitches include a 'carageen moss' stitch, referencing a type of seaweed from the area. The cable stitch can represent fishing ropes, and a double cable stitch represents a couple working together. The zigzag stitch reflects winding paths of the island (Corrigan 2019, Aran Sweater Direct).

***Figure* 7.2**
Photograph of an Aran sweater taken by Katie Young. This image holds the same copyright of the book (CC-BY-4.0).

The Aran sweater craft offer insights into the physical and human landscape on the west coast of Ireland. This includes:

- the relationship between women, domesticity, and craft work on the Aran islands as it relates to the development of Aran sweaters for men at sea; what does the development of this craft

reveal about labour patterns and gender on the island?

- the role of farming on the island in relation to its wool products that allowed for the development of this sweater craft; how do materials from farming develop into tangible wares, and what does this tell us about the interrelationship between humans and nature on the island?
- the symbolism embedded within the sweaters speaks to an intricate relationship between aspects of the islands, such as its winding paths and farmlands with the physical garments that islanders wear; how might craftwork hold knowledge of the physical landscape in unique and/or informative ways?
- the growing global recognition of Aran sweaters in museums and shops reveals the Aran sweater as a symbol of Irish national identity and culture that circulates in both domestic and global realms

True or False

Test your knowledge about Aran sweaters!

An interactive H5P element has been excluded from this version of the text. You can view it online here:
https://opentextbooks.concordia.ca/irishlandscape/?p=180#h5p-16

Artists have explored different themes through the lens of the Aran sweater. For example, Pauline Cummins' 1985 exhibit Inis T'oirr/Aran Dance drew on the Aran sweater, known for its deep connections with domestic craft traditions, to explore women's use of the sweater in relation to the 'terrain of the male body', subverting existing associations of women with nature and the Irish landscape, but also adding new perspectives that complicate gender and Irish national identity.

For more information on the history of the **Aran sweater** and the Aran Islands, check out the Aran Islands website by clicking on the link.

7.2 Case Study: The Golden Vale and Dairy Production

The Golden Vale is a lowland region within the province of Munster with fertile pastures of green grass, spanning the counties Tipperary, Cork, Kerry, and Limerick (Cahill Irish Farm Cheese 2020). Due to the vast fertile land in the region, the area is well known for its dairy production, including farms and companies that sell dairies such as cheese, butter, and milk.

Given the vastness of the region of the Golden Vale, it is not only a region of beautiful landscapes and of farm production, but also of major domestic and international industry. While dairy farming has an extended history in the Golden Vale, the first creameries were established in the region during the late-nineteenth century (Breathnach 2000, 182). Today, the county of Cork holds more dairy animals than all counties of Northern Ireland combined, proving the exponential growth of the dairy industry within the Golden Vale in contrast to other parts of the island (Halleron 2018).

To get a sense of the vastness of pastureland in the Golden Vale, click on the link to view a map of the research farm at **Clonakilty Agricultural College** in County Cork. What do you notice about the acreage, drainage, and plot-sizes of pasturelands on this farm?

Farmers are integral to the maintenance of cattle in the Golden Vale as well as the production of dairy products. Many family farms are based in the Golden Vale, meaning that a large portion of Munster citizens are actively involved in dairy farming, including living on the land, engaging in farming, and being involved in programs relating to sustainability and viability of the land. Some farms are also involved in training and schooling for future generations of dairy farmers in southern Ireland.

How is Irish butter made?

Butter has been made in Ireland for centuries. The process of making butter has changed over time, with the evolution of different technologies.

You can learn about butter production across generations by visiting **The Butter Museum** in Cork. Click on the link to visit the museum's website and learn more about Irish butter.

Major technological changes in Ireland have shaped Ireland's butter-making process, beginning with making butter in the home, to a now full-scale industry. The Butter Museum conducted an oral history with Madge Ahern, who recalls her experiences making butter at home. According to Ahern, butter making was a domestic job assigned to women of the house – deemed the "woman's job". Women would milk cows early in the morning, and then either send their milk to a creamery, or participate in the making of butter at home. For those who did not have enough milk from cows to send to the creamery, they used different tools of varying sophistication to stir the cream into butter (The Butter Museum n.d. "Audio Archives"). Some examples of technologies for homemade butter making include:

- a skimmer: a small hand-held device (or even using a plate) that collected cream that had risen to the top of a bowl of milk that sat for several days
- a tumble table-top churn, and/or a jug and tub; homemade butter-making slowed with the rise of accessible creameries nearby family farms
- a separator, a device that separates the milk from cream and divides the milk so that one side has skim milk and the other has butter fat (cream); it can then be mixed, sit to allow thickening, and then churned into butter

Watch an example of domestic butter-making with a tabletop churn here:

One or more interactive elements has been excluded from this version of the text. You can view them online here: ***https://opentextbooks.concordia.ca/irishlandscape/?p=182#oembed-1***

Figure 7.3 Video of a recreation of 1930's traditional Irish farmhouse tabletop butter churning, performed at Muckross farms in 2019, available on YouTube; *included on the basis of the Standard Youtube License.*

Beginning in the late nineteenth and into the early twentieth century, new technologies emerged that influenced both domestic and industrial butter making processes. For example, the Alfa-Laval Mechanical Separator, developed by Swedish inventor Gustav de Laval in 1878, allowed for the

speedy separation of cream from milk. Consider the below image Figure 7.4 of the Dairy Engineering Co. of Ireland's Alpha Power Separator, from the early twentieth century. You can see options for industrial butter-making equipment on the left, but also for household/domestic sizing on the right. What does the large-scale sale of milk sterilizers and separators for industrial and domestic purposes reveal about changing approaches to milk and butter production in Ireland during this time?

Figure 7.4 *Pages from a Dairy Engineering Company of Ireland catalogue, advertising a separator and an appliance for milk sterilization. © The Cork Butter Museum, with photography by Roland Paschhoff, www.thebuttermuseum.com. This photograph is included on the basis of fair dealing.*

By the early twentieth century, separators and sterilizers increased production of milk for sale and use. The diversity of equipment listed in The Dairy Engineering Company of Ireland's catalogues reveal the boom in production of supplies that supported the butter making process in Ireland. By approximately 1920, facilities were set up with such technologies that facilitated larger scale production of butter. As we learned in **Chapter 5**, the distribution of items like these sterilizers and separators became possible through new trading pathways that emerged during this period, such as via the Grand and Royal canal trade routes, and also through emerging roads and train routes that allowed for larger-scale product distribution throughout the island. Considering the growing populations in urban centres like Dublin and Cork at this time, industrial separators made larger scale production for butter possible, too, and thus the sale of butter to domestic households in urban centres was similarly facilitated through these newly emerging trade routes.

The below item in 7.5 shows a domestic tool for butter making in rural Ireland. Considering the intersections of physical, human, and cultural geography, we can imagine how major shifts in technologies altered women's use of space. Similar to the advances in electricity from the Ardnacrusha power station, we can surmise that domestic items like the separator below changed the daily life of women at home, making tasks like milk separation more efficient and thus allowing time for other uses of space in their environment. This change would have coincided with other technological shifts in the domestic sphere, such as electric irons powered by electricity afforded through the Ardnacrusha power station discussed in **Chapter 5**.

***Figure* 7.5**
Components of the hand powered Alfa-Laval separator, commonly used to make butter in rural Ireland. © The Cork Butter Museum, with photography by Roland Paschhof, www.thebuttermuseum.com.This photograph is included on the basis of fair dealing.

In 2016, Kerrygold opened a new production and packing facility in Mitchelstown, County Cork. It cost 38 million euros to build, with the aim of expanding the market for Irish dairy products. The facility is able to produce fifty thousand tonnes of butter per year through new producing machinery.

When you think about the development of butter production in Ireland, how has widespread global demand for the product changed Irish peoples' interaction with the butter making process?

The widespread global demand for butter has changed Irish peoples' interaction with the butter-making process, shifting from equipment sold to produce butter in the household to large scale industrial production for domestic sales and export.

Present-day dairy industry in Ireland

Today, the dairy industry of Ireland, especially those emerging out of the province of Munster, have an international reach and reputation. This is perhaps not surprising, as some of the key dairy brands in Ireland have a long history of international import. For example, Kerrygold, an Irish butter product, began exporting butter across the globe as early as 1964; it remains one of the top purchased butters in Germany and the number one butter import to the United States (Agriland 2016).

Figure 7.6 *Photograph of multiple packs of spreadable Kerrygold Butter on a shelf at a grocery store in Temple Bar, Dublin. Image taken by Katie Young. This image holds the same copyright as the textbook* (CC-BY-4.0).

The Irish Food Board corroborates this trend, noting that "significant effort goes into developing new market opportunities for dairy exports" (Board Bia n.d.). Recent efforts have been made to integrate sustainable farming models into the Irish dairy industry, which can be viewed in farmers' involvement in programs such as the 'Sustainable Dairy Assurance Scheme', that promotes a grass fed approach to dairy farming (an approach known for better animal welfare and perceived as more nutrient-rich and sustainable) (Board Bia n.d.). The temperate Irish climate is well-suited for the grass-fed approach, which affords farmers an extended period of time for growing grass, sometimes lasting nearly the full year (Teagasc 2017).

Kerrygold is one of the major Irish dairy companies that you may have encountered before through media or in your grocery store. It emerged in 1962 and has grown on an international scale over the past fifty years (Agriland 2016).

Part of what propelled Kerrygold onto the international stage was its well-received advertisements. One of the more iconic advertisements is the 1994 advert "**Who's taking the Horse to France**?", where humour and double-entendre are found in a scene where a woman from France comes to purchase a horse in Ireland, and develops interest in the horse owner based on his use of Kerrygold butter when making dinner for the family. Another well-known Kerrygold advertisement is the 2009 advert "**The Sod's Air**", filmed in Glenmacnass, County Wicklow, that explores the experiences of a newer Irish generation migrating abroad through the parallel of a child and wife leaving to Germany in parallel with Kerrygold being exported to Germany too. As you can see, even early Kerrygold butter advertisements produced for the Irish market focussed on themes of international engagement, with Kerrygold circulating in Germany and France.

What do Kerrygold advertisements say about what the Irish landscape might mean to Irish people, for Irish people abroad, and for international consumers?.

Below is a Kerrygold advertisements produced for a German audience. When watching the German add below (Figure 7.7) and interact with the H5P video activity, look for cultural ideas about the Irish landscape communicated to international audiences via television media:

An interactive H5P element has been excluded from this version of the text. You can view it online here:
https://opentextbooks.concordia.ca/irishlandscape/?p=182#h5p-17

Figure 7.7 Irlands einzigartiges Wetter (Ireland's Unique Weather), Kerrygold Deutschland TV Advertisement © KerrygoldDE, available on Youtube; *included on the basis of the Standard YouTube License.*

How does the Irish dairy industry contend with environmental sustainability?

In 2015, the European Union removed existing milk production quotas. This resulted in a significant increase in milk production in certain European countries including Ireland. Not only did Ireland increase its milk production, but it also increased its global butter exports (Gehrke 2022). To keep up with Ireland's new post-quota dairy demand, Irish farmers had a far higher number of dairy cows than prior to 2015. Farmers also increased their grass production to feed these cows, thus facilitating higher quantities of milk and thus butter for export.

How does this relate to environmental concerns? To begin, in order to make butter one needs cows, and in order to feed cows, one needs grass. In Ireland, nitrogen fertilizer has been used at higher rates since 2015 to develop grass pastures for an increased cow population. Nitrogen fertilizer is known for polluting its surrounding ecosystems. In Ireland, there is a link between the increase of nitrates in dairy farming with increases in greenhouse gas emission, a trend that has consequences for the quality of the climate, air, ecosystems, and bodies of water in Ireland.

Beyond the initial step of feeding cows whose milk is used for making butter, there is also the climate impact of producing and distributing butter. Finnegan et al. (2017) conducted an analysis of the global warming potential (GWP) of each stage of butter processing and distribution in Ireland. Stages included transportation of raw milk to the processing facilities, the process of making the butter (including separation, storage, and pasteurisation of raw milk), and additional steps required to run dairy facilities, such as wastewater treatment, solid waste treatment, water consumption, chemical usage, and cleaning systems. After the butter is made, there is also GWP related to the packaging of butter, and its distribution (including transporting the butter domestically and internationally).

Finnegan et al. (2017) found that for the making of Irish butter, the processing of raw milk into butter was the biggest contributor to GWP. As well, Irish dairy producers are currently at the limit of the Irish Environmental Protection Agency's (EPA) emissions to water levels. Additional wastewater treatment facilities are thus required in future for dairy production companies to run. The introduction of these treatment facilities will curb the emissions into Irish bodies of water. However, new water treatment facilities will add additional environmental stress due to its high use of energy. Given the growing nature of the dairy industry in Ireland post-2015, and with consideration of the GWP it brings, some scholars have suggested there be a carbon tax on dairy production

(Finnegan et al. 2017, 167). As this section makes clear, the making of Irish butter at such a scale both relies on the sustainability of the Irish landscape, yet at the same time, it threatens the very livelihood of the Irish landscape.

The making of dairy products in the Irish context offers a unique example of the confluence of physical, human, and cultural geography from local, regional, national, and international vantage points. As a case study, it reveals insights into imaginings of the Irish landscape from domestic and international perspectives, understandings of how farmers produce from the land, how butter has shaped imaginaries of the Irish landscape globally, and also how the making of butter contributes to environmental crises in the region.

Summary, References, and Resources

Summary

Aran sweaters and Kerrygold butter are objects that can be consumed, purchased in stores, worn on bodies in the case of Aran sweaters, or eaten with meals and baked in recipes in the case of butter from the Golden Vale. In both cases, these physical items are created from natural materials made from animals who live on and consume from the physical Irish landscape – wool of sheep in the case of the Aran sweater and milk from cattle in the case of Munster dairy. In the process of creation, they are informed by farming practices within the counties of Tipperary, Kerry, Limerick and Cork, as well as on the Aran islands, where farmers are involved in the harvesting of milk and wool to create said products. Thus humans are involved in the process of creation at the farming stage, as well as in the manufacturing stage, where butter is processed in factories, and Aran sweaters are produced either through domestic knitting practices or now also in factories that mass produce these clothing items for global consumption.

The global consumption of both Kerrygold and Aran sweaters reveal circulating ideas about Irish national culture internationally. For example, Aran sweaters are both present in international museums and galleries as a form of important artwork from the west of Ireland, but also sold in tourist shops the world over as well as within Ireland in specific Aran sweater shops as well as throughout airport duty free areas. Likewise, Kerrygold butter has international reach, sold throughout the globe and maintaining a high status in major markets including the United States and Europe.

At home and abroad, these creations hold ideas about what it means to be Irish, as well as projections of Irish culture for a wide variety including those living in the Irish diaspora. For example, the Kerrygold advertisements present a particular meaning of Irishness that is tied to the land, rural farming, and dairy, tying the dairy industry as inextricably linked to Irish national culture. Likewise, the patterns of Aran sweaters weave together imagery of the islands where they emerge from, including fishing ropes as well as land patterns that speak to remote life on the islands for those living in international contexts. Both Aran sweaters and international Irish butter circulation represent ideas of Irish rurality, farming practices (such as cattle farming or fishing), and gendered nature of labour through their branding and imagery. They express one kind of lifestyle within the Irish landscape that is not necessarily indicative of all experiences of the physical, cultural, or human landscape.

Based on what we have learned throughout this text, you may now be able to identify aspects of the Irish landscape – environmental, human, political, urban – that are overlooked in the globally circulating narratives and imaginings of the Irish landscape present in products such as Kerrygold

and Aran sweaters. While the makers of these items contribute to the 'making' of the Irish landscape, the many varying case studies shown throughout these seven chapters highlight a more diverse, dynamic, and ever-changing landscape that makes up the island of Ireland.

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About the Author

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- Rahil Kakkad, Concordia Library Open Education Resource Assistant

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Versioning History

This page provides a record of edits and changes made to this book since its initial publication. Whenever edits or updates are made, we make the required changes in the text and provide a record and description of those changes here. If the change is minor, the version number increases by 0.1. However, if the edits involve substantial updates, the version number goes up to the next full number. The files on our website always reflect the most recent version.

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Version	Date	Change	Details
1.1	December 2, 2024	Book published.	