

Narrative and the development of Scunthorpe.

George Henry Jewitt, BA(hons) Arch, Dip. Arch, R.I.B.A., M.I.Q.

A thesis submitted in partial fulfilment of the requirements for the degree of Doctor of Philosophy

The University of Sheffield Faculty of Social Sciences Department of Urban Studies and Planning

21st February 2022

Abstract

This thesis considers the role of narrative in the development of an urban settlement. In doing so it develops an idea of operations based on the requirement for the production of surplus in order to more clearly show the role of narrative in relation to operations as well as the role narrative and operations play in the creation of urban settlement. It does this by means of a case study of the urban settlement that became Scunthorpe, looking at it over the long durée and charting how the settlement was created as an intersection of the changing requirements of the iron & ironstone industry and the changing requirements of local actors and operations. It examines the narratives of actors engaged in the development of operations in ironstone and iron. It further posits that it was not until those actors saw a benefit for operations in the amalgamation of multiple local administrations and forced it that official narratives of entity called Scunthorpe (emanating from its various local authorities) could emerge. In doing so the thesis pays particular attention to the collapsing of space and time due to operations and the network of operations and actors created by this that create the potential for an urban area. It also studies the actors across generations and space, in part to determine the origins of their entrepreneurship and capital or to determine if they conform to the "self-made" man narrative. The thesis also examines the adoption of the "Garden City" narrative, by an emerging Scunthorpe and how it was utilised in different ways at different times up to the present day.

Acknowledgements

Firstly I would like to thank Professor Heather Campbell who interviewed me and became my supervisor till departing to take up a post in Canada, without whom this thesis would never have been embarked on. Secondly I would like to thank Peter Bibby who supervised the bulk of this thesis till his retirement and who helped me hone my ramblings into something like a coherent set of ideas. Without him this thesis would never have reached completion. Thirdly I would like to thank Glyn Williams and Andy Inch who took over the supervisory task and provided much needed comment and encouragement.

Fourthly I would like to mention two local historians, the late Les Wells and Brian Longbone who were very helpful at answering my questions. Les Wells' book on the Winn family and early mining saved me an enormous amount of research time and Brian Longbone's book on local railway operations was also very useful. Fifthly I would like to thank Tim Davies, Partnerships and Community Librarian at North Lincolnshire Library Services who was kind enough to retrieve property ownership details and maps for me.

Dedication

This thesis is dedicated to my parents, who instilled in me a love of the built environment, my uncle, whose love of local history infected me, and my grandfather, who would have known some of the major participants in this story. All of them would have been a considerable help had they still been alive. I also dedicate this to my long suffering wife who has shouldered many extra burdens whilst I sat and wrote.

But most of all, this entire thesis is dedicated to my son in the hope that he will better understand the world he occupies.

Contents

Abstrac	ct	2
Acknow	vledgements	3
Dedicat	tion	4
Content	its	5
Table of	f figures	8
Declara	ation	11
Chapter O	Dne	12
Intro	duction	12
Chapter T	- wo	16
Defin	nitions and positioning of the research	16
Note	es on sources and information gathering.	26
Chapter T	hree	34
Terra	aforming Manley: Preparing the ground	34
The e	emerging pattern	
Class	s differences in attitude to landholdings	44
Рори	ulating Manley	45
Estab	blishing ironstone operations in Manley.	48
"Bles	ssed are the Poor" (lands)	52
The L	Landowners	55
Chapter Four		59
	narratives of the Capitalists involved in the development of the iron field and the p emerge	
Self-r	made or not?	63
The l	Instigators and Investors	65
W.H.	. & G. Dawes	65
Cliff.		67
Adam	nson, the self-made man	69
Adam	nson's Letterbook: Context	70
Probl	lems with the ore, revealed in the letterbook	72
What	t did Adamson expect and why did he stay?	74
Adam	nson publically questions the orefield	75
Othe	er Adamson enterprises and reflections	76

	Adamson's partner Ogle.	77
	Advancements in legal "technology"	77
	John Roseby, and "discovery" narratives	78
	William John Roseby	80
	Appleby Iron Company	81
	Lincolnshire Iron Smelting Co	83
	The Redbourn Hill Iron & Coal Company, Winn becomes an Ironmaster.	85
Cha	pter Five	
	The coalescence of operations in Iron & Steel and the forging of an urban area	
	How and why operations on the orefield combine.	
	The effects of WW1 and important connections with the Ministry of Munitions	90
	United Steel Companies	90
	Operations and the amalgamation of Government structure	92
	Interwar years and the problems scale brings	95
	Negotiating with Government through public narrative	97
	Post WW2	98
	Housing	
	Situation in Scunthorpe	
	Turning bricks & mortar into surpluses.	
	Gathering pace, development in the 1930's	
Cha	pter Six	
	The Garden City & Scunthorpe	
	Abercrombie	
	Early involvement with Scunthorpe, and steel.	125
	Early planning efforts before Abercrombie.	
	Amalgamation: Scunthorpe councillors seize control.	
	A plan is needed	130
	Abercrombie and his plan	131
	Aspects of Abercrombie's initial plan.	133
	Struggles with the plan and its delays.	136
	Post Abercrombie approval.	141
	Reflections on the planning process.	143
	Abercrombie's "garden city" legacy	143
	Ironmasters "garden city"	

"Garden" and meaning in Scunthorpe 1917-1930150
Transitioning from "Garden City" to "New Towns"15
Post WW2 Scunthorpe152
A public narrative for a thing called Scunthorpe emerges
Decline and downgrading of an official voice15
Return of a Scunthorpe centric official voice and the development of a new narrative15
Reconnecting with "Garden Town"16
Government returns to the "Garden City"16
The Council applies for "Garden City Status"168
Scunthorpe & the "garden city"169
Chapter Seven
Conclusions
Principles necessary to the investigation17
Necessary analytical steps and pre-requisites172
Narratives and categories of narrative which may be demonstrated to have causal effect and in
what context
what context
what context
what context
what context
what context. 173 Reflections and opportunities for further study. 173 Appendix A. Family Succession Chart, Major Landowners 183 Appendix B. Additional Maps & Documents. 183 Appendix C. The development of the "Garden City" Narrative. 183
what context. 17 Reflections and opportunities for further study. 17 Appendix A. Family Succession Chart, Major Landowners 18 Appendix B. Additional Maps & Documents. 18 Appendix C. The development of the "Garden City" Narrative. 18 Origins and development of the "Garden City" narrative. 18
what context.17Reflections and opportunities for further study.17Appendix A. Family Succession Chart, Major Landowners18Appendix B. Additional Maps & Documents.18Appendix C. The development of the "Garden City" Narrative.18Origins and development of the "Garden City" narrative.18Prior uses and meanings of "garden".190
what context.17Reflections and opportunities for further study.17Appendix A. Family Succession Chart, Major Landowners18Appendix B. Additional Maps & Documents.18Appendix C. The development of the "Garden City" Narrative.18Origins and development of the "Garden City" narrative.18Prior uses and meanings of "garden".19Influences on Howard.19
what context.17Reflections and opportunities for further study.179Appendix A. Family Succession Chart, Major Landowners180Appendix B. Additional Maps & Documents.180Appendix C. The development of the "Garden City" Narrative.180Origins and development of the "Garden City" narrative.180Prior uses and meanings of "garden".190Influences on Howard.190Howards "Garden City".190
what context.173Reflections and opportunities for further study.174Appendix A. Family Succession Chart, Major Landowners183Appendix B. Additional Maps & Documents.183Appendix C. The development of the "Garden City" Narrative.183Origins and development of the "Garden City" narrative.183Prior uses and meanings of "garden".190Influences on Howard.190Howards "Garden City".190From plan to reality, Unwin drives the narrative.190
what context.173Reflections and opportunities for further study.179Appendix A. Family Succession Chart, Major Landowners183Appendix B. Additional Maps & Documents.183Appendix C. The development of the "Garden City" Narrative.183Origins and development of the "Garden City" narrative.183Prior uses and meanings of "garden".190Influences on Howard.199Howards "Garden City"199From plan to reality, Unwin drives the narrative.199Institutionalisation201

Table of figures

Figure 1 Present day location map14
Figure 2 Village and iron works location map circa 1908. Note that Lysaght's did not arrive till 1911.
Figure 3 Enclosure dates
Figure 4 Approximate family land ownership in the central part of the parishes based on the position
at enclosure or, in the case of central Brumby, tithe maps plotted on the 1907 O.S. map which is
©Crown Copyright. Reproduced by permission of Ordnance Survey [®] . Note some of the "old
enclosures" in Frodingham are assumed to be Winn land as New Frodingham is built on them.
Compiled by me from various sources41
Figure 5 Scunthorpe & Frodingham enclosure map detail. Centre of Scunthorpe village v shaped
feature top right, centre of Frodingham village + shaped feature centre bottom. Original black &
white plan by Rex Russell in (Armstrong 1981), pp 5-6. Hatched areas are old enclosures and some
assumptions as to ownership have had to be made. Copyright North Lincolnshire Council, used with
permission44
Figure 6 Census population figures of study area 1801-1861 compared with England and Wales. Data
from Histpop.org and (Armstrong 1981)46
Figure 7 Relative growth rates of study area 1801-186146
Figure 8 Village % of total in 1801Figure 9 Village % of total in 186147
Figure 10 Census population figures of study area 1861-1911 compared with England and Wales48
Figure 11 Relative growth rates of the study area 1861-191148
Figure 17 Village % of total in 1901Figure 18 Village % of total in 191149
Figure 14. 1908 Map of parts of Crosby, Scunthorpe Frodingham and Brumby. Note the relative size
and position of New Frodingham and New Brumby. Note also how building in Scunthorpe is
constrained by township boundaries with development just beginning to cross the line into Crosby.
© Crown Copyright. Reproduced by permission of Ordnance Survey [®]
Figure 15 Number of dwellings per settlement from census data
Figure 16 Occupation of industrialists in the metal industries. Adapted from Crouzet 1985 p14963
Figure 17 Iron companies and dates65
Figure 18 Winn's Railway involvements help to create a corridor from West Yorkshire to the sea.
Cliff's works at Wortley, Leeds can connect to Wakefield. Original map can be found here: LNER
Encyclopaedia: The North Eastern Railway reproduced with permission
Figure 19 "Accidentally discovered ironstone" from "This Town of Ours", illustration by H.D. Smith,
1936. Copyright North Lincolnshire Council, used with permission79
Figure 20 Appleby Iron Company shareholders and possible references with 1871 census
Figure 21 Directors of the Lincolnshire Iron Smelting Co
Figure 22 List of subscribers to Redbourn Hill Iron and Coal Co., after Wells (2013)85
Figure 23 Evolution of Iron & Steel Companies on the Frodingham orefield93
Figure 24 Evolution of Local Government Institutions on the orefield
Figure 25 Housebuilding in Scunthorpe set against Appleby Frodingham steel production 1920-1960
Figure 26 Rate of housing growth. Plotted and interpreted from figures in (O. A. Hartley 1969) 103

Figure 27 Housebuilding Scunthorpe compared to UK. Scunthorpe figures from (O. A. Hartley 1969).
UK figures from (Mitchell 1988)104
Figure 28 1887 Ordnance Survey of Scunthorpe. ©Crown Copyright. Reproduced by permission of
Ordnance Survey [®] 105
Figure 29 Typical vernacular style of the study area. Copyright North Lincolnshire Museum Services,
used with permission106
Figure 30 Sale plan and particulars Wells Street 1890 (documents in my possession)107
Figure 31 Types of auction sale 1902 & 1909 (Mill Farm, Ashby) Documents in my possession 108
Figure 32 1902 & 1909 land sales with 1964 OS map superimposed to show "as built" comparison.
Left overlay map ©Crown Copyright. Reproduced by permission of Ordnance Survey [®] . Right overlay
Ordnance Survey map from the now defunct old-maps.co.uk website which permitted non-
commercial use
Figure 33 1918 Wells-Cole auction sale 288 acres. Reconstructed map from sale particulars plotted
onto 1907 O.S. ©Crown Copyright. Reproduced by permission of Ordnance Survey [®] 109
Figure 34. Reconstructed sale plan for Church Farm, Ashby, 1928. Underlying map ©Crown
Copyright. Reproduced by permission of Ordnance Survey [®] 110
Figure 35 1910 land tax map showing Parkinson, solid blue and Winn, solid green. Maps courtesy of
North Lincolnshire Library Services, used with permission
Figure 36 Future development overlaid on 1910 Land Tax map with developer names and dates of
purchase. Land tax map curtesy of North Lincolnshire Library services. Overlay map ©Crown
Copyright. Reproduced by permission of Ordnance Survey [®] 114
Figure 37 How Scunthorpe could be made a "Garden City". (A Scunthorpe Town Planning Scheme,
How Scunthorpe could be made a Garden City 1910) North Lincolnshire Library Services, used with
parmission119
Figure 38 A rather unfortunately outlined diagram by Geddes relating to Place: Work: Folk (see
upper left quadrant) (Defries 1928) The Notation of Life. Reproduced under fair use copyright
exemption
Figure 39 Abercrombie & Johnson, early road plan for Scunthorpe, Copyright North Lincolnshire
Council, used with permission
Figure 40 Map No.2 1930. My photomontage from an original at the National Archives, Kew.
Photographed with permission
Figure 41 By-law housing (right) v "garden city" style (left) in Scunthorpe. Copyright Google 2019.144
Figure 42 Semi-detached and detached houses on the Henderson Avenue scheme today. Originally
circa 1921. Copyright Google 2017145
Figure 43 Short terraced houses on the Henderson Avenue scheme today, originally circa 1921.
Copyright Google 2017
Figure 44 Houses on the 1930's extension to the Henderson Avenue scheme laid out to an altered
plan from that originally suggested in the 1920 scheme. Copyright Google 2017
Figure 45 Brockelsby and Marchment's 1920 drawing. Of the area tinted most, except the north-
west quadrant, seems to have been constructed to plan, although no building was placed in the
circle. Streets to the east (right) were already extant. Inked detail to the south was not constructed
as shown. Phase two, broadly the non-tinted area to the west, was not constructed as shown.
Copyright North Lincolnshire Council held at the North Lincolnshire Museum, used with permission.

Figure 46 This postcard shows part of the northern section of the Redbourn Village Society scheme not long after completion. The view is actually of Roland Road and not Cottage Beck Road. There are aspects of this photo that could be said to be "garden city" esque and these would be the trees, modulated frontages, low eaves, gables fronting the road etc. Unknown copyright, used under fair Figure 47 The same view today looks something less than a "garden city". Copyright Google 2019. Figure 48 Rivelin Road bungalows by John Brown & Co. circa 1920 as pictured circa 2017. Copyright Figure 49 By 1939 council housing had declined from a high in 1922 of 58% to represent 15% of new houses built since 1920 but by 1960 almost 46% of all houses built since 1920 were council houses. Interpreted from data in (O. A. Hartley 1969)......153 Figure 50 Scunthorpe guide published in 1964. Copyright North Lincolnshire Council, used with Figure 51 Interesting similarity between the Scunthorpe Town Team logo and the Geddes diagram "Valley section with basic occupations". Logo copyright North Lincolnshire Council, used with Figure 52 Cover of the 1966 Leeds University planning revue depicting where it saw growth Figure 53 Page from the "Town Planning Review", 1923 showing Abercrombie's suggested positioning of children's playgrounds so that no child was more than ¼ mile from one. There is no suggestion that they are connected to each other per se. Public open space is mainly confined to the western slope, which Abercrombie felt unsuitable for housing. This is one of the few "Scunthorpe" Figure 54 Any interest in a "garden lake"? Poster to promote public consultation on applying for Figure 56 (below) A sequence of maps showing the major changes in the development of Scunthorpe. Derived in part from (D. Pocock 1970) redrawn, enlarged, coloured, and expanded by Figure 57 Extent of ore mining operations with dates. After Pocock (D. Pocock 1964) with the addition of underground mines and colour by the author......186 Figure 58 Relevant portion of Garden City Status document. This is not available online so Figure 59 Early "group of slumless, smokeless cities" draft drawing. Copyright Welwyn Garden Figure 60 Later version of the "group of slumless, smokeless cities" drawing. Copyright Welwyn Garden Heritage Trust. (Howard's Drawings 2022).....190 Figure 61 The frontispiece and preface of the 1893 book "Chicago: The Garden City" (Open Library Figure 62 One of Thomas Hill's designs for a garden from The Gardener's Labyrinth, showing 'a great

Declaration

I, the author, confirm that the Thesis is my own work. I am aware of the University's Guidance on the Use of Unfair Means (<u>www.sheffield.ac.uk/ssid/unfair-means</u>). <i>This work has not been previously been presented for an award at this, or any other, university.

Chapter One

Introduction

Sunny Scunny

"Up where England cracks a smile, is a river like the Nile. Just as brown and dirty. La, la, la, la, la.

Ain't exactly a tourist spot. It isn't known for being hot. But it's off the M180. La, la, la, la.

But I don't care. We've all got to live somewhere. Ok it's not LA, but you should hear what the people say,

When we tell them where we're from, they just look at us all gone. What's the matter? Ain't you heard of Sunny Scunny?

Kind of place that makes you think, must be more to life than drink. It doesn't matter I met my bird in Sunny Scunny.

Met a bloke in London town. Looked at me with such a frown, when I tried to explain where I lived. La, Ia, Ia, Ia, Ia

Well he thought that I was drunk. Didn't think Scunthorpe exists. Thought it was just a stupid name, made up for a laugh.

But I don't care. We've all got to live somewhere. Ok, it's not L.A. but you should hear what the people say,

When we tell them where we're from, they just look at us all gone. What's the matter? Ain't you heard of Sunny Scunny?

Kind of place that makes you think, "must be more to life than drink". It doesn't matter I met my bird, In Sunny Scunny.

No it's not that close to Leeds, and it's not near Liverpool, and it's not a part of Scotland.

I didn't make it up. There really is a place, with that word,

In its name, In its name, In its name, In its name!

When we tell them where we're from, they just look at us all gone. What's the matter? Ain't you heard, of Sunny Scunny?

Kind of place that makes you think, must be more to life than drink. It doesn't matter I met my bird, in Sunny Scunny.

Have a pint down the Cocked Hat, down the Mallard or Desert Rat. What's the matter? Ain't you heard, of Sunny Scunny?

Bar Geneva or the Mint, watch the band play at the Imp, what's the matter? Ain't you heard, of Sunny Scunny? Sunny Scunny!"

Tripitaka Boys, circa 1980 unpublished song. Used under "fair dealing"

I should begin with declaring a personal interest in the place, the creation of which and narratives about which, are the subject of this thesis. It is the place where I was born, some years ago, and the place where I continue to live and work. My extended family have been responsible for the development of thousands of homes in this place over many decades and I am proud to say that this is where I am from. So this thesis is not just a contribution to the literature on narrative, it is also a personal journey to understand the place that has meaning to me.

That place is now widely known as Scunthorpe but despite my pride in the place its name is, in fact, widely derided and the butt of many comedians' jokes. Many visiting football fans chant the question "Who put the **** in Scunthorpe?" Yet this is not a narrative of the place that I recognise.

Given the difference between the narrative Scunthorpe has tried to project of "Industrial Garden Town" and the one which appears to be held by a wider audience it seemed that there were some important questions to be addressed as to the use of narrative, how it is constructed, how actors utilise narrative, what are the narratives of the actors involved, the role narrative might play in the relationship between actors, structure and place, and when narratives move from the private to the public domain or when they might have causal power. My research has revealed a hidden history of Scunthorpe painting itself as a "garden city" it never was and yet almost is, which led me into further research as to what the "garden city" narrative might be and how that has changed over time (see Appendix C.)

Initially the narratives were essentially private, that is to say between landowners and industrialists, and concern their own desires for their assets. However as a urban settlement solidifies, due in large part to the requirements of a consolidating industry, public narratives begin to develop about that urban settlement and those seems to coalesce around notions of the "garden city", as we shall see.

The structure of this thesis is thus divided into the following chapters: in chapter two I ask questions about narrative, structure, actors and discuss the theory behind this. In chapter three I introduce the landscape prior to 1859, when the exploitation of ironstone changes the potential for change, and in chapter four I then detail the creation of an urban settlement and the particular operations, actors and private narratives used in doing that. In chapter five I detail the emergence of a named and unified settlement, the consolidation of its structures against the background of emerging local government structures. In chapter six I detail the settlements connection with and public use of the

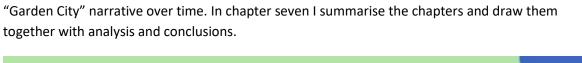




Figure 1 Present day location map.

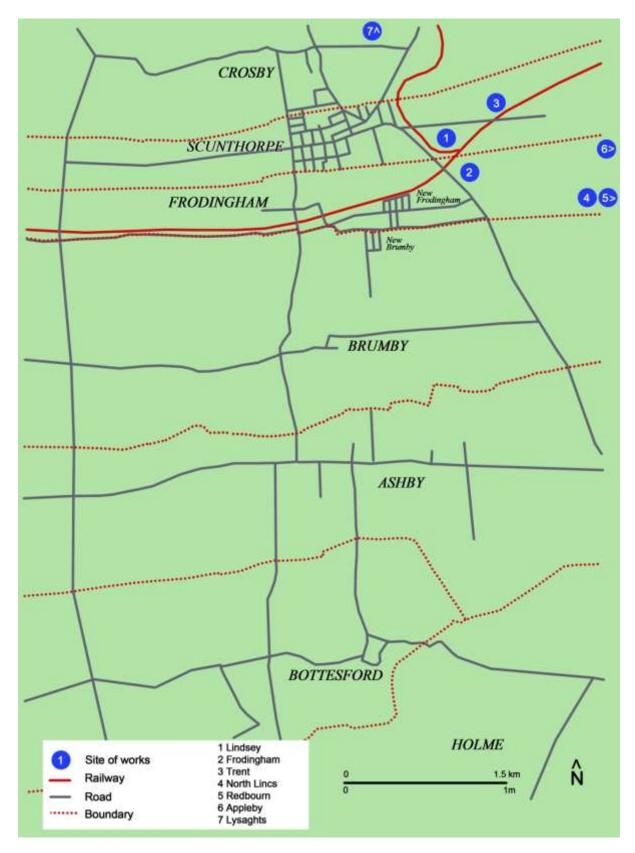


Figure 2 Village and iron works location map circa 1908. Note that Lysaght's did not arrive till 1911.

Chapter Two

Definitions and positioning of the research.

The purpose of this thesis is to examine the role of narrative in the development that occurs in Manley. Manley was a wapentake (a former term for a division of a county, often termed a hundred elsewhere) situated in Northern Lincolnshire. The purpose of this chapter is to set out my thinking on how narratives might exert causal influence on development outcomes in general and how I will explore this in principle.

How, if at all, can narratives have causal influence in the development and transformation of the physical environment and how would we know it had happened? We can't, of course, run a controlled experiment where we compare the deployment of a particular narrative in Manley with an alternate history where such a narrative was not deployed in Manley or even in a place similar to Manley. This is because in the social sciences we overwhelmingly ask questions about open systems that are subject to considerable change. The natural sciences, for the most part, ask questions of closed systems and are much more likely to be able to produce predictive results. In the study of open systems we are much less likely to be able to produce predictable results as outcomes but that doesn't mean that we can't take a realist approach and examine mechanisms, causal factors, emergent powers and so forth that make open systems function.

Therefore as a result of dealing with an open system I have decided to take a realist approach in this thesis which, while not an absolute necessity, seems to me to be a sensible way to proceed. I will say more about that approach below but first I want to introduce some definitions of terms I will be using throughout the thesis and which go some way towards explaining the mechanisms I see as important for this thesis.

I see "economic" factors play a significant part in the development of Manley and I maintain that they have a relationship with narrative. In order to bring this into clearer relief and for us not to get drawn into purely "economic" arguments I have devised a way of conceiving of "economic" activity and for this I am going to use the term "**operation**". This will make the way operations shapes development decisions much clearer.

By **operation** I mean activity carried on by an actor or actors in some form of co-operation with the intention to produce a **surplus** or **surpluses**. By **surplus** I mean simply more of something than existed at the start. An **operation** will produce product and that may be the **surplus** but other non-physical items such as share price, market share, dividend etc. may constitute the required **surplus/es**. These **operations** involve actors, a facility (the place where such activity happens), inputs, technology, and outputs including potentially waste/by-products. I will mention here, but will go into more detail later, that operations create their own nested behaviour settings.

An **operation** is an ever changing entity that continues to attempt growth and reproduction until its extinction. The actors that create and sustain such activity tend to externalise decision making to **operations** themselves thus attributing their own agency to **operations**. In so doing they are aided by the forces inherent in **operations** among which are:

- 1) Growth whatever the actors deem to be the objective/s of the **operation** the momentum will be to produce more. And it follows that **operations** will need:
- 2) Continued pressure to collapse space and time utilising technology to continuously improve the rate and efficiency of the production of the desired **surplus/es**
- 3) Accrete inertia become entangled with existing inputs, technology, or markets to a point where change may stall.
- 4) Self-centre onto "core" activity continuously seek to shed functions that arise and are perceived as non-core by spawning them as **operations** in their own right (waste to byproduct) or by persuading other actors to take on responsibility for that function (housing, education, etc.).
- 5) Be potentially subject to creative destruction or enact it utilise technology to eclipse the product of other operations either by substitution or by rendering its purpose redundant.
- 6) Continuously review the desirability of the surplus/es seen as important at any one time e.g. do we have enough liquidity to survive.
- 7) Precipitate the concentration of actors in space and in networks across space resulting in urbanisation and arteries of connectivity.

These forces produce the facilities and the operations controlling them by creating and restructuring the environment within which action can occur. As such they also connect facilities and operations in continuously changing networks across space and time.

Operations can be broadly similar in character and by that I mean they use similar inputs, facilities, and processes to produce broadly similar outputs (even if they differ on the importance of particular surplus/es). Operations can also be radically different in character utilising different inputs, facilities, and processes to produce different outputs (whilst potentially having similar surpluses). Despite differing in character operations still exhibit conformity to the points above and provide mutually supporting and enabling surpluses. At the same time as providing support they also constitute a mutual threat through creative destruction.

In an **operation**, inputs are transformed into outputs and this is done by means of **technology**. Indeed W. Brian Arthur defines **technology** as being just that: *"that which lies between inputs and outputs"* (2009). This seems a sensible position for us to take here as is his recognition of technologies as being built out of the recombination of previous technologies, in the way a gene pool might be thought to operate. Each "new" **technology** adding further to the gene pool and thus creating ever greater potential for recombination. To that I add that whilst technologies are often considered to be the physical object/s that they manifest, technologies are also less obvious entities such as a permitted legal status (sole-trader, partnership, limited company, plc, etc. or a process such as a mortgage.

Having defined operations and surplus above it is perhaps useful to state what is not an **operation** and that is any grouping of actors that would come under the generally accepted definition of a level of **government**. There is, however, a close relationship between **operations** and **government** with government being both an enabler and a constrainer (the characteristics of a structure) of operations as well as in certain circumstances an owner of last resort. **Government** is a collection of actors who have causative power laid out in texts – acts of parliament etc. – which are fixed at the time of enactment but that may be superseded by further acts and have some limited room for

interpretation subject to challenge in the legal system. Many of those Acts will be in relation to operations i.e. stimulated by operations or in response to operations.

I am now going to define **narrative** as used in this thesis. I will start with a definition of narrative given by the economist Robert J. Shiller:

"The word narrative is often synonymous with story. But my use of the term reflects a particular modern meaning given in the Oxford English Dictionary: "a story or representation used to give an explanatory or justificationary account of a society, period, etc." Expanding on this definition I would add that stories are not limited to simple chronologies of human events. A story may also be a song, joke, theory, explanation, or plan that has emotional resonance and that can easily be conveyed in casual conversation." (2019, p xi)

In the book from which this definition is taken, "*Narrative Economics, How Stories Go Viral & Drive Major Economic Events*", it is clear that Shiller believes narratives, as he defines them, do have significant causal power within the context of banking and finance, which is his primary concern. We can look back and see that, on occasion, notable market turmoil has been at least assisted by narrative. Some examples would be Tulip Mania (1637), the South Sea Bubble (1720), and the Dot-Com Bubble (2000). Whilst the events we are looking at in Manley did not have such dramatic effects on the whole economy, they nevertheless had had significant effects both locally and regionally within operations of a similar character. They also produced dramatic urbanisation that ranks amongst the highest in the UK at its peak. Shiller's concerns also have a lot to do with "crowd behaviour" and represent a particular behaviour/milieu synomorph, which I will say more about below.

We should, however, backtrack a bit and consider what a narrative consists of and what the reasons are for actors expressing themselves in narrative. A narrative is a future orientated story about action in the present that utilises historic information to propose a course of action. Thus a narrative in the context of this thesis might be along the lines of "we tried X, it isn't working, we must do Y".

Past \rightarrow	Present \rightarrow	Future
Previous	Current	Next
Action/Data/Environment	Situation/Data/Need for Action	Setting of direction/goal

The important feature narrative has, that other forms of discourse lack, is its attempt to "capture the future". Narratives have a vector in time and in this sense they are four dimensional **propositions**.

As propositions they are projected to other actors with the intention of gaining support for some future action. That audience of actors is faced with three options: to be ambivalent, to believe true or to believe false. To make the decision that the narrative is either "true" or "false" actors may wish that they were able to utilise a scientific form of "truth" or some notion of an "absolute" truth but realistically actors will be required to use "pragmatic" truth to come to a conclusion.

I suggest that a useful path to understanding aspects of narrative and "truth" is to consider the line taken by Pragmatists such as William James¹. If actors generally agree that future direction and aims of a particular narrative seem to be in harmony with their wants, needs and desires then they would, on balance think those narratives were "true". But as narratives are also part of the process of constructing our wants, needs and desires so that they align with the production of any particular surplus then those narratives are going to be recursively reinforced as well as subject to change as operations change. Therefore the "truth" of these narratives has to be mutable and we can look to James for a view on this. He says:

"Truth **happens** to an idea. It **becomes** true, is **made** true by events. Its verity **is** in fact an event, a process: the process namely of its verifying itself, its veri-**fication**. Its validity is the process of its valid-**ation**." (1907 (1975), p 138)

Thus for the purposes of considering "truth" in narrative we might consider "truth" to be that which gets us closer to our goals and if our goals are met that "truth" is verified. Always remembering that any goals any individual or group might have are being continually adjusted by narrative.

So I have said that there are forces inherent in operations, of which I have listed seven, and that they clearly have causative power, and Shiller has said that narratives have causative power. This would seem to imply that some causal structure is required.

Firstly, within the seven forces I noted there is room for narrative to have causative power and that is because operations change and require actor input. Places where that input is required are at point 1) where actors are required to produce the objective(s) of operations. Objectives are future orientated goals based on where the operation is now, having reference to the past performance and therefore the objective(s) are best expressed in the form of narrative or competing narratives within or between operations. At point 4) it is a similar situation where actors, having embarked on a narrative for their operation, must continually refine and re-evaluate that narrative in the light of feedback and they must consider if parts of their operation could form part of a different narrative and therefore better fit into some other operation and its narrative.

These narratives can be seen as largely internal to an operation or in some circumstances between operations. However in point 5) we can see that in order to resist the force of creative destruction it is required that actors will need to project a narrative of the output of the operation, if not also the agreed aim of the operation. The name for this kind of activity is advertising, marketing, and public relations. The aim here is not only to try to keep the output of an operation relevant to actors who purchase or may potentially purchase that output by giving them a narrative that they can find pragmatically true and hence aligns with their goals, but also to project a narrative of beneficiallity to various levels of government that might have regulatory power over operations. This last point may well be at a narrow focus directly with such regulators or more broadly aimed at influencing larger groupings of actors who might then themselves exert power over government e.g. at a general election. Here I should mention the difference between the surplus/es of individual operations and the aggregate surpluses that governments might need to consider because there will arise disputes between what the government desires as a surplus/es and what individual or groups of operations desire. Governments must maintain "confidence" in the economy and try to keep it in

¹ (1842-1910)

"balance" as well as managing surpluses within potentially binding international agreements. Thus, for example an operation may be meeting its own surplus goals yet may be making it difficult for government to meet its environmental obligations.

Thus despite there being inherent forces within operations which can come into play and will win out in the long run there is still room for narratives to exert causal power and shift the focus of operations. Maintaining the realist approach, as outlined by Sayer (1992). There are three things we should consider and these are causality, mechanisms, emergent powers, and stratification.

On causality Sayer says:

"On the realist view, causality concerns not a relationship between discrete events ('Cause and Effect') but the '**causal powers**' or '**liabilities**' of objects or relations, or more generally their ways-of-acting or '**mechanisms**'. Powers and liabilities can exist whether or not they are being exercised or suffered; unemployed workers have the power to work even though they are not doing so now...." (992, pp104-5)

So what we should be interested in is not some chain of events that culminate in a particular outcome but the mechanism/s behind those events, the causal structure, that enabled them and the points at which mechanisms can exert influence. I think you can see from my definitions of operations and narratives above that these represent mechanisms of causality for events in the development of Manley.

The forces I outlined as inherent in operations are ever present but not necessarily always relevant. The force of gravity is always present but only becomes relevant if we put ourselves in a position where we might fall.

In terms of stratification and emergent or contingent powers we can consider Sayer's example of water being able to extinguish fire whilst its constituent parts, hydrogen and oxygen, are both flammable (1992 p119). Thus we see that the world is "not merely differentiated but stratified". However as Sayer points out it is possible for "higher stratum" objects to affect "lower stratum" objects by such means as building aeroplanes that, temporarily, abate the effects of gravity.

If we bring this argument directly to Manley we can see that the ironstone, the major operational input for the events we will be describing, was laid down some 180 million years ago. Clearly many strata had to emerge, not the least of which was human life, before the emergent powers of ironstone could be exploited. Although there was some limited exploitation in earlier times there had to be a significant build-up of strata before widespread exploitation on a scale to produce urbanisation could happen.

Significant strata for Manley include, but are not limited to, the emergence of such things as a railway network, mechanical blowing of furnaces, the use of coke as fuel, a class of entrepreneurs, a class of investors, a financial system to unite the two, iron verifying itself as "useful", the development of leases & titles, and so on. I will comment more on these throughout the thesis and in the conclusions.

Thus we might consider operations to be a higher strata entity which can reach down, as it were, to affect lower strata. Narratives rest on a significant number of strata not the least being the ability to construct language and the ability to have a sense of the past and the future.

Narratives have persuasive and often obfuscatory functions, as Abrams says:

"My own impression is that the function of narrative in this enterprise is to carry – in a highly persuasive way not accessible to intellectual scrutiny - those bits of the argument the author does not chose to make available for direct critical examination on the part of his readers." (1982, p 307)

It is certainly correct that a key purpose of the narrative is to persuade by shifting focus heavily in the authors preferred direction. In doing so it necessarily obscures other courses of action or information. We will be looking at documents from local government that do just this. They construct a past for Manley that I clearly show exaggerates the input of a certain planner and twists history and definitions in order to achieve their objectives. They, local government, seemed to take "Planning as persuasive storytelling" (Throgmorton 1996) to heart but left out the need to be accurate.

This introduces, as we see from the above quote, the idea that narratives are suspect and may lack truth. Narrative's association with fiction, despite the fact that fiction may convey underlying truths about the world, further enhances this. I have written above about the need to adopt a pragmatic view of truth when considering narrative but despite these "flaws", narrative remains a very effective way of creating a pathway for action because, amongst other things, it can create aspirational imaginaries that actors can "believe" in. Once actors can believe in something then they are likely to take actions such as voting, endorsing, assisting, enabling, purchasing and so forth.

Earlier I was careful to distinguish levels of government from operations. Government is a structure that produces texts with legal power and these are not normally in the form of narrative. They mandate courses of action and the penalties that will apply, with some judicial variance, should those mandates be broken. There is a very hard edge between these government texts and the way operations use narrative. Nevertheless government has increasingly used narrative to justify and explain such texts and has also become susceptible to narrative from outside in the framing of such texts. One of the local government texts we will be looking at, which contains narrative, is one that is aimed both at national government and at local actors. On the one hand it is looking to convince national government that it is complying with (in this case) the objectives and rules that will deliver funding and on the other hand it is looking to convince the local population that this is the type of urban living that they should be aspiring to. There is also an audience of those involved in operations, both local and non-local, who need to be convinced that this is a direction that favours them. I will examine this particular text, where local government is projecting, in greater detail in the relevant chapter. Local and national governments also have to react/respond to narratives too. As with my point about open systems earlier it is not guaranteed that narratives will develop for or against certain things that fall within the remit of levels of government. The plan for urban expansion in Manley produced no significant counter-narrative despite its large scale but the siting of what were then 3G network towers produced a strong, if ultimately unsuccessful, counter narrative. Subsequent iterations of the mobile telephone network mast have faced much less

opposition as the anti-3G narrative failed to verify itself. The urban expansion in Manley has yet to take place more than 20 years since its emergence; potentially a counter narrative may arise when this proposal reaches the realm of the actual, but by now many operations will have already committed to it, so it would need to be a significant narrative to overturn it. This brings up some issues of temporal ordering here between semiosis and action of the different groups of actors involved and the potentiality of them enacting causal powers.

Whilst government will use and consume narratives in any number of situations such as "public information films" and "newspaper campaigns" for action, lower tiers of government will utilise narratives for "place promotion", "place branding", repurposing and similar circumstances. In these latter circumstances the objective is "attraction" either of tourists, capital, workers or some other kind of asset that is deemed to be lacking yet desirable. One of the desirable things might be to combat the corrosive power of metanarratives.

The higher the tier of government the more likely it is to be using and consuming metanarrative. This is not surprising as the higher the tier of government the greater the remit it has both over actors, operations and lower tiers of government.

Metanarratives are narratives that concern overarching concepts for the structuring of relations between groups of actors and or operations at a national or international level. Indeed they seem to suggest a stratification within narrative where some appear to act at a different level and reach down to interact with lower strata narrative in the way we have discussed about stratification above.

There are three of these metanarratives that will be particularly important to us in this thesis and as such are worthy of discussion here first by way of introduction. As with all narrative they represent a mechanism for actors causal engagement.

The first of these is "Free trade" and its contrary position "Tariffs, Cartels, & Protectionism". We do not need to know the intricacies of these two narratives for our purposes we just need to know that they represent two future visions of the "best" way operations in one domain (most often a country) can react to differing values (both cost value and values in the moral sense) in another domain. The former narrative says we should exploit lower cost values and ignore moral values, potentially putting at risk operations in the UK. The latter says that we should artificially inflate the lower values till they approximate to UK ones and utilise moral values as a justification, as well as utilising value fixing mechanisms (cartels) when suitable.

These essentials of these narratives date back a considerable time but they have noticeable effect with the repeal of the Corn Laws from 1846 and have an even greater impact on operations of a different character in Manley from the 1880's and continue in the present.

The second metanarrative that concerns us can be traced back at least as far as ancient Greece and is linked to the third metanarrative which I will write about below. This is the "Rural Idyll" narrative. This is also expressed in a number of similar narratives, such as an "anti-industrialisation" or a "green" narrative, all of which lament the passing of some more harmonious time when actor's lives were (supposedly) in concert with the natural environment.

As Raymond Williams makes clear in his documentary "The Country and the City", (1979) the relationship between the city and the country are poorly constructed. The documentary points to

the contrasting scenes of a cornfield and of Hogarth's "Gin Lane", suggesting that these two views were regarded as opposites and yet stating that a surplus in grain was what made the gin in "Gin Lane" possible. In this it would seem that he would have agreed the importance of flows of resources and actors out of the landscape as being integral to other operations.

He goes on to talk about how a mythic past is described saying:

"....many writers have looked back to the "good old days" which, interestingly, always seem to be just disappearing within their own lifetime." and further: "And so one can trace a continual pattern of retrospective regrets going right back to that Golden Age, or to perhaps that most potent of all idealised places, the Garden of Eden." (1979)

This also relates back to the fictional Elysium Fields and real Arcadian meadows. As Williams describes it this is myth functioning as memory (1973, p 60). Or one can say that this is a deeply embedded, recursively produced metanarrative and one which we can see feeds directly into the Garden City narrative. Howard strove to unite country and city in a kind of new Jerusalem he eventually called a Garden City and many of the people who developed and implemented the first Garden Cities were followers of Morris and Ruskin and the deep Medievalism they advocated with its harking back to a mythic past.

The widespread promulgation of this metanarrative is attributed by Barnett, in his *Pride and Fall* sequence of four books, as a reason for the decline of Britain from the Victorian period. Paul Addison explains this point in his review of Barnett's "The Audit of War":

"According to Barnett, the rot set in with Evangelical Christianity and the Romantic Revolt. The 18th-century ruling class had been hard-headed realists, competing with a will in the world-wide struggle for trade and colonies. But the moral revolution of the early 19th century gradually divorced the governing class from realpolitik and immersed them in a dream world of philanthropy and humanitarianism. Victorian values, the opium of the bourgeoisie, were instilled by the public schools, whence generations of idealistic young men emerged in a state of permanently arrested development, their minds befuddled by cricket, Christianity and the Classics. Incapable of grasping the base motivation of the rest of the human race – the French, for example – they were no less ignorant of industry, science and technology, the foundations of Britain's military and economic strength. The governing class were, in short, unfit to govern. Instead of organising the resources of the Empire in the national interest, they ran it as a branch of Toynbee Hall. Instead of adapting the educational system to fit the requirements of a nation competing for markets, they indulged in the fraudulent exercise, much trumpeted by Classics dons, of liberal humanism for the masses." (Addison 1986)

I don't think that we can underestimate the pervasive nature of this narrative nor the damage it has wreaked over the populations of such urban areas as come under its gaze. I will later reproduce a

child's school essay from the 1920's where she is asked to compare urbanised Manley with the fictional Coketown of Charles Dickens' "Hard Times". She compares it rather than contrasts it.

Assisting the adoption of this metanarrative locally in Manley is the unstable nature of operations there and which were unstable from the start some one hundred and sixty years ago. Of course there is instability in all operations for the reasons mentioned above but the instability of operations in Manley is reinforced by the waves of labour moving to Manley from operations of a similar character that had failed elsewhere to the point today where there is only one other operation of this character in the UK. As I write this both these operations have announced significant job cuts

The exceptional growth of population brought to Manley due to the requirements of these operations, whether from other failed operations in the UK or initially from the surrounding Manly countryside, or, fairly soon after, from the wider UK population, leads to the requirement for the scattered villages to grow into an urban area. But what character should that urban area have and who should build it?

Given the anti-industrial sentiment it is, perhaps, not surprising that actors in the various local government structures in Manley become engaged with the third metanarrative and that is the "Garden City". The development of this metanarrative is a complex one and its meaning develops and diverges over time to such an extent that whilst its point of departure is clear the landing point is not at all stable over time. You will find my detailed analysis of this in Appendix C and I make relevant comments throughout the text because Manley has a long and changing association with this metanarrative.

But, as we will see, there are other mechanisms at work here involving the promotion of such metanarratives to the local councils by central government for various reasons I will develop in the text, as well as pressure to amalgamate local government from both central government and from those actors in operations who begin to see that it is in their collective interests to unify decision making and who also see that housing provision is not their core activity (having previously advocated the "Garden City" narrative themselves).

Now we should consider how to implement, conduct, and analyse the research within the framework of the realist position set out above.

If we are to understand the causal nature of narratives it seems that we need to take some aspects of present theories and combine them into something that will work for us. Narrative analysis has two main variants; structural and dialogic/performance. Structural NA compares the structures of similar narratives with each other with the aim of coming to a view of how similar actors perceive certain actions or events. We don't have the volume of data to compare in the case of Manley but we can use this to say something about our narratives. Dialogic/performance analysis is more concerned with the "who, what, and why" of narratives and as such is more content focused and here I think there is more to be gained.

On the whole I am not looking to interpret narratives in their internal structure. In the most part I am dealing with actors who have the ability to express themselves in a direct fashion, so there is no requirement to tease out an attitude or effect across a wide range of actors. I am, however, much more concerned with the who, what, and why, as well as the where and when.

Critical Discourse Analysis, of which there are a number of variants, is perhaps simply stated as the understanding of power relations through the analysis of texts (both written and verbal). It provides analytic understandings and devices to understand within specific textual contexts "precisely" how linguistic choices reflect and support particular social arrangements. Fairclough describes it thus:

"My original formulation of the broad objectives of my work in CDA still holds: to develop ways of analysing language which addresses its involvement in the workings of contemporary capitalist society. I am not suggesting a mechanical 'economic determinism', but the main areas of social life are interdependent and have effects on each other, and because of the dominance of the economy in contemporary societies its effects are particularly strong and pervasive." (2010, p 1)

There is, therefore, some common ground here between the way Fairclough looks at "society", "economy", and language, and the way I do. He sees a strong role, albeit a non-deterministic one, for the "economy" in driving change in "social" life and he sees language as central to that. As with all critical theory differential outcomes for groups of actors are a central concern and as such power relations also have importance. I note that he bases his analysis in a "contemporary" time period.

Our situation very similar although as we are looking at discrete areas of texts over a longer timeframe and hence a broader timespan of the "economy" and as such there is a greater change in the "economy" during the period. As I have outlined above I see the "economy" as a holistic system of operations in which language, in the form of narrative, is capable of influencing and being influenced by operations themselves, i.e. narrative as being integral to the functioning of operations. I see actors at different "levels" having the ability to exert influence on and be influenced by operations.

CDA and NA are developed by Görmar and Kinossian (2022) into what they call Critical Narrative Analysis and they use it whilst investigate the changing local government produced narratives for the medium sized German town of Zeitz, which has some similarities with events in Manley. They credit Souto-Manning (2014), and Gavriely-Nury (2017) with initial development of Critical Narrative Analysis.

Görmar and Kinossian, base their analysis on Fairclough's (CDA) three dimensional analytic framework, which is to say discourse as text, discursive practice, and social practice. We certainly need to look at the narratives as text or rather as textual constructions in the vein of NA. We are also on common ground with looking at text as discursive practice, and we can do this over a considerable timespan. Further we also need to consider the social context and social practice of the narratives that we encounter. Thus Fairclough's three dimensional analysis is rightly at the heart of CNA.

When analysing the narratives and their potential for causal power we should consider these broad headings:

1) Actor. This actor/s in communicating something in the context of ongoing events in Manley and we need to understand the significance of this actor and how they were formed. Is this an individual or a corporate actor? If corporate it is likely that this combination of actors has

modified their causal powers in some way. Has this actor been brought into being by some text or abolished by it?

- 2) **Content**. They are saying something of importance to them with implications for other actors and we need to understand how they have constructed it. What is the intertextuality contained within it, either with other narratives or metanarratives? Is this text, particularly institutional/corporate texts, creating something with powers that affect the development of operations?
- 3) Location. The place where this narrative is being told could have importance not just in terms of a physical location but also in terms of the medium used to relay it. At what location within the causal structure is this narrative being introduced? We also need to consider location in the context of a behaviour-milieu. In addition to the enabling structural settings created within government an operations we also need to consider the impact of a particular synomorph. (see (Barker 1978))
- 4) **Time**. The temporal context of what is being produced has similar concerns to Location as regards causal structure but we also need to establish a chronology so that we can establish that which went before and that which followed.
- 5) **Reason**. We need to understand the mechanism that is prompting this utterance and why it might be thought to be necessary or potentially successful to create this narrative and what might be the alternatives for the actors involved. We should consider the potential for reasons to create actors.
- 6) **Contingency**. The success of a narrative is contingent upon the particular set of causal powers in operation in Manley at that particular time. Is it the "right" actor at the "right" time saying the "right" thing or not.

In line with our discussion about stratification earlier we may find that not all of the first five points may be relevant every time.

It thus seems that pertinent questions for this thesis to ask are:

- (1) When and in what ways does narrative have causal power in the development of an urban centre later called Scunthorpe?
- (2) How and why did that urban centre Scunthorpe develop official public narratives associated with the "garden city" narrative, and with what aims and effect?

Notes on sources and information gathering.

Having discussed the conceptual approach we should now consider how the data was selected. The thesis can be seen as something of a hybrid research project, whose key components are space, time, operations and narrative. Whilst interdisciplinary studies are common this particular thesis stretched that in being exceptionally wide ranging. Thus it proved difficult, as a single researcher, to drive the research forward as simultaneously as possible on all fronts.

Nor was it possible to obtain data from a limited number of similar sources such as a group of archives or a series of interviews etc. I was clearly in need of a variety of historic data indicative of

the change that had taken place. Some of that data could be found in conventional archival settings, officially published documents and so forth but these are to a narrative as a chronology is to a story. They also represent the "official" view of events. A much broader and more eclectic range of sources were really needed to draw out the formation and use of narrative. In navigating a river of data we must search out the eddies and currents of use to us regardless of their "official" status or location.

I was reminded of the work of Raphael Samuel in his call for a wider approach to history:

"So far as pedagogy is concerned, it allows no space for the knowledge which creeps in sideways as a by-product of studying something else: geography, for example, with whose fortunes history,, has been umbilically linked-; or literature, with which – in the days when the great historians were anthologised as stylists – history was freely bracketed." (2012, p 5)

It was clear to me that this investigation needed to reach back a considerable distance in time and consider Manley over the long durée. Equally, given the spatial dimension discussed above, it would need to reach outwards from Manley, to other places via the actors involved in those places. The overwhelming proportion of those actors had no surviving archive. Indeed this led to another initial concern, that there might not be enough data. In the final analysis there turned out to be, perhaps, too much data.

That brought an additional issue. In that in order to demonstrate patterns and connections, particularly of actors over space and time, it is necessary to present a lot of data, each piece of which may lack obvious immediate relevance but becomes more relevant as multiple similar pieces of data reinforce themselves. In order to make this more accessible for the reader this thesis has a more narrative style than many. An alternative quantitative approach could have been considered and, indeed, parts of this thesis contain references to Erickson (1959), Crouzet (1985), White (1985) and others who took such an approach but it quickly seemed clear to me that I could not explain narrative adequately by using this approach.

Let me now categorise some of the main areas of research that I saw as being required, the sources consulted and the approach taken with each, although there was inevitably some overlap.

Population

In order to assess growth and formation I needed to get an appreciation of the population over time. When did numbers increase and how did that compare with national growth?

Broadberry (2010) and others provided some mediaeval context and Whiteman (1986) providing a waypoint for the 17th century and Broad (2012) providing one for the 18th.

From the onset of the national census Histpop.org (Essex 2004-2007) was particularly useful especially for making growth comparisons with other urban areas as well as providing increasing detail such as numbers of dwellings. It also enabled me to check details tabulated elsewhere such as in Armstrong (1981). White (1985) provided some data and analysis but also great context about motivations for movements. Further drilling down of census data could be done, with a little digging,

utilising the census sheet images available on Ancestry.co.uk. This, for example, enabled me to establish the numbers of people and dwellings in New Frodingham, albeit on a ten-year cycle.

However there is a blurring in and out along this timeline that has to be considered. Early data is speculative and over a wider area but later data, though precise, fails to take account of increasing populations in dormitory villages brought about by more varied transport links. This, of course, highlights the concerns Massey (1994) had with defining boundaries. But the key historical window of formation and establishment of a place called Scunthorpe remains in focus. Thus I was able to construct pie & line charts that give the reader a feel for the relative flow over the most relevant time period into the five villages and subsequently chart the speed of growth relative to the UK as a whole.

Operations and technology

Although I took an holistic view of operations that is not normally how economic data is recorded. It tends to be recorded as different kinds of operations, that of agriculture, that of mineral exploitation, and that of iron & steel production etc. Research was required into all of those as it became clear that these were intertwined. Common goals as to understanding key developments in technology and structure and how they drove change were required. This, of course, extended across the UK and sometimes internationally.

Although I have no formal training in agriculture I have operated an agricultural holding for more than 30 years which at least gave me a grounding in those types of operations but key to understanding the pre-exploitation ("agricultural") period was Beastall (1978) which explained the changing nature of farming operations locally whilst throwing up potentially important actors and some biographical and land holding details, which could later be built on by further investigation utilising Ancestry and The British Newspaper Archive . Other sources such as Young (1813 (1970 reprint)) and various papers, theses, articles etc. contributed data though often being mainly concerned with some other aspect of study such as with Thompson (1955) on the decline of landed estates or Fuller (1976) on the reasons behind an estate style of building on the Yarborough estate or technical aspect such as Mathew (1993) on marling. Thus over time one was able to piece together key technological changes that both changed the landscape and the landholdings, as well as the key personnel involved in that process and their motivations, with no one piece of or source of information being critical (and thus compensating for individual errors).

As regards the exploitation of mineral reserves and the subsequent smelting and other technical processes there was a bewildering amount of research on the ironstone/iron/steel/by-products industry, both its history and its technology. A sensible start seemed to be with general histories of the industries and work from that into specific aspects, such as the differing chemical properties of ores and the implications of that on cost, location and technology, when they became apparent. Of course this also threw up particular actors to be considered. As a Member of the Institute of Quarrying I had some understanding of the history, technology, and practice of mineral extraction, albeit with a different mineral and on a much smaller scale. Having been born in Scunthorpe and living in the area I had some background awareness of ironstone/iron/steel/by-products production and the political social and economic impacts in the post war period. Even so it quickly became apparent that there were some important technical aspects, of which I was unfamiliar, that

transitioned the industry geographically as well as technologically that were indirectly important to the creation of operations in Manley.

Thus I started with books by Ashton (1924 (3rd edition 1963)) and Burnham (1943), amongst many, for context and moved into specifics such as business policy described by Boswell (1983) and details of process locally described by Cook (1990) & Jackson (1960), for example, and in places like Corby (Scopes 1968) & Cleveland (Owen 2007). It was also necessary to give considerations to books written at particular times by relevant participants, such as Bell (1884)² to look for evidence of their thinking at the time.

Other sources were books and booklets produced by the particular companies involved in Scunthorpe, though these mainly appeared in later years, such as The United Steel Companies Ltd. (1965), Stewarts and Lloyds Ltd. (1954), & British Steel Corporation (circa 1974). Of course such authorised histories are to be treated with caution as they cross over from history into marketing.

Although the international situation was sometimes dealt with in the general histories there were also specific relationships to consider, such as with Germany, discussed by Wengenroth (1994). Further there were considerations of the relationship with the state and more particularly the periods of nationalisation as dealt with by McEachern (1980).

In terms of operations locally I owe a lot to Wells (2013) and (2006) for the work he did on key industrialists involved locally and their motivations. This was privately published work and not the only piece of privately published material I used. Obviously there is a question mark over the rigour of such work so where I thought points to be important to my thinking then I made efforts to cross check details often by, for example, searching the British Newspaper Archive.

I'm also indebted to Pocock (1964) for the detailed research he did about Scunthorpe whilst researching his thesis, which he developed into a number of journal articles.

Actors

As to the kinds of actors involved in these types of operations I consulted Erickson (1959) and Crouzet (1985) to give me an overview. Both works concerned the origins of actors and their families. Erickson's sample included actors involved in developing the Frodingham iron and steel industry whilst Crouzet, considering a slightly earlier period, also considered the "self-made man" narrative. I then took names I had come across in my research and compared and contrasted them with the findings of Erikson and Crouzet before taking the research further. Very few had published biographies; some appeared in passing in other books, some had their own Wikipedia page, some had web pages devoted to them or their families, and for others it was necessary to try to find them on sites like Grace's Guide, Ancestry or the BNA.

All these sources have their difficulties. I found errors in Grace's Guide as well as times when the information was somewhat sparse. Ancestry, by and large, allows you to drill down to original documents but sometimes the writing is ambiguous, sometimes people are not on the census or

² Bell was to figure in the Winn/Adamson arbitration.

other document you expect them to be on and sometimes you may be confused by people with similar names. Apart from the reuse of first names, which is quite common, there were quite a number of males who changed their surnames in order to inherit. The BNA can be extremely helpful but if you are searching for a common name it can be almost useless unless you have specific dates or other key words that you can add to your search. Local history Facebook pages were of use but quite often, even with more recent history, can produce conflicting answers from differing groups of people each adamant of their correctness.

Local Government bodies

With governmental institutions one is on firmer ground. The North East Lincolnshire Archives hold the minute books for the various local government institutions up to the achievement of Borough status. The North Lincolnshire Library Service hold minute books for Scunthorpe Borough and various more recent documents are available on the North Lincolnshire Council website. Whilst one is relieved to locate them and reasonably assured of their veracity one is often deflated as to their lack of narrative content.

Unlike the archived letter-books of Daniel Adamson that I examined (see chapter 4), which were rich in detail and personality, the minute books are dry chronicles searchable only by date. However having located something of potential interest within them one could move to the microfiche copies of the local papers held in the Scunthorpe branch of the North Lincolnshire Library Services, and sometimes the BNA³. This became something of a back and forth exercise as newspaper reports threw up other meetings that might be important and so on.

Planning

Researching the "Garden City" was one of the more straightforward, linear, tasks with Beevers (1988), Ward (2016) and others providing a solid skeleton from which I was able to build relevance to the Scunthorpe experience. The local Scunthorpe newspapers were fine for checking references made in Hartley (1969), Pocock (1970) and others but slow when only a rough idea of date was available. There were difficulties using search terms including the word garden in the BNA in that it threw up spurious results including such things as reports of garden parties.

The planning history for the period 1909-1929, where the links between "Garden City" and Scunthorpe might be found, were in the National Archives at Kew, (HLG4/1957 1923-28) and (HLG4/1956 1910-1923). Whilst Pocock probably examined these files I believe I am the only person to have reconstructed this 20 year period as a narrative, a period which contained the retention by the council of Sir Patrick Abercrombie⁴ These files provide interesting insights into the thinking of the actors involved, including what they thought of one another. As far as I could establish no papers concerning the Scunthorpe plan reside in the Abercrombie archive. I managed to find a couple of plans which were published by Abercrombie in journal articles not directly concerning Scunthorpe

³ Apart from the year 1939 the Scunthorpe newspapers were not on the BNA. But regional ones in Hull and Sheffield were.

⁴ Abercrombie was not knighted till 1945 so I will generally refer to him as Patrick Abercrombie or Abercrombie.

utilising the University's online access to journals. A small amount of material was found at the North Lincolnshire Museum. This makes the Ministry files the only comprehensive source for this period.

As a slight aside here we have to wonder why there is no material related to Scunthorpe in the Abercrombie archive. This brings up the point that one must be careful and consider what is being archived, by whom and to what purpose. Is a particular narrative being promoted, with perceived failures being expunged from the record? As Popp & Fellman say:

"However, as increasing numbers of studies argue, the archive cannot be seen as a neutral space. Archives and archival practices are firmly embedded in institutional contexts and in societies' memory paradigms, influencing what is remembered, what is preserved, how documents are indexed and organised, how archival knowledge is defined and even what forms archives take. The archive does not provide us with access to the past, but rather a mediated representation of the past." (2017)

Given the amount of data within the Ministry files, 600+ pages, and their distance away from me I took the decision to photograph them in their entirety and analyse them away from the archive. Indeed this was a technique that I eventually used for most archival research. Although this undoubtedly recorded more data than was ultimately required it did mean that the data could be considered at leisure. But perhaps more importantly it meant that where writing was indistinct, for one reason or another, it was possible to run those items through programmes such as Photoshop to enlarge, filter, enhance, and compare in order to decipher. With material that was typewritten it would also have made OCR possible, though I never found this necessary. Of course before photographing I was careful to obtain permission.

What was particularly interesting in these files were the candid remarks, asides, and underlining as well as the internal reports from inspectors and officials where they felt they could be less diplomatic. From these and the other material a rich narrative can be obtained. Such narratives were harder to find in later years and one was thrown back onto council published booklets and such search capabilities as were available through a much restructured newspaper industry, the BNA having limited titles available in the modern era. Comments left on online articles and in Facebook group posts provide some background chatter, albeit of a mostly partisan nature, but occasionally useful information was to be had.

Land assets & holdings

Here I was much indebted to Russell (1982) (also in (Armstrong 1981)) for his pre and post enclosure maps of northern Lincolnshire which enabled me to extract names and compare across parishes to construct ideas of probable holdings, checking them in Ancestry and the BNA and searching the internet for family history pages that opened up further research. In this way it was possible to achieve reasonably tenable asset and genealogical profiles of families over time together with plausible reasons for asset disposal or acquisition. Or more simply put to produce a narrative for them. As I traced those assets into the 20th century the 1910 Land Valuation Survey was particularly valuable and I was fortunate to have terrific support from the North Lincolnshire Libraries service, which held a copy for Scunthorpe, and helped me search for ownership details as well as giving me

high resolution map images. Some land sale particulars and deeds already in my possession were also valuable and one or two did fortuitously appear on eBay. I will say here that setting up keyword searches on eBay, as I did, can produce valuable results, over time, despite not being guaranteed to produce anything.

When I wanted to trace the builders and/or owners of housing stock from the 1930's onwards, I had to resort to the Land Registry website and download deeds. Unfortunately this is not a free service so care had to be taken in choosing suitable candidates likely to produce results. Fortunately my skills as an architect and my family history in housebuilding were an aid in these last tasks and enabled me to locate, identify, age, and group particular housing stock on the ground as well as on maps. Google Streetview and Maps were also useful here allowing one to study housing stock in detail without arousing undue attention.

Limitations and challenges

As I write, a further 50 plus years after Hartley (1969), in which interviews played a prominent role, the opportunity for interviewing first hand witnesses to key events was not possible. Whilst it may be possible to interview people with regard to recent events, this would inevitably shift the focus of the thesis towards recent events. Thus at an early stage I decided that formal interviews would not form a part of this thesis. Thus the focus of the CNA differs from (Görmar 2022) who used semi-structured interviews.

I was able to make email contact with authors and researchers who had worked on Scunthorpe such as Hartly, Pocock and Armstrong. Though they were kind enough to reply they were unfortunately too distant in time from their research to be able to be of much help. I was able to ask questions and share some of my research with Wells (2006), for example, until his recent death, and also Longbone (1996). Both of whom were on Facebook local history groups along with Cooke (1990).

The research evolved in an organic (or semi chaotic) way with research of one actor throwing up other actors, events, assets, structures, technologies etc., the importance of which were not always immediately apparent. Very occasionally a linear path of research became available, as with researching a technology, but only briefly. Thus there was the danger that the research would run away with itself. Eventually, though, the Derridaian like shifts of meaning and focus begin to coalesce and patterns begin to emerge in the data cloud one has accumulated, names begin to repeat etc. and one gets the feeling that the research is beginning to end and the analysis is developing. This is reminiscent of a quote by David Moss on the technique of Alfred Chandler :

"The first time I saw Professor Chandler present a paper, I was surprised that this giant of business history – whose major works I had read for my oral exams in graduate school – seemed lost in the details of what was then a new research project. There were facts everywhere, but not an argument to be found. The next year, however, the presentation of the facts began to take shape, and an argument began to emerge. And then, the following year, more structure and greater clarity, though the project was still rooted deeply in the historical details that he had begun collecting, almost obsessively, years before. Somewhere along the way, it struck me that this was precisely how he had become a giant in the history profession – by getting lost in the details and then gradually making order out of the chaos. It was an extraordinary process to watch..." as quoted in (Mordhorst and Schwarzkopf 2017)

I can't claim to have achieved Chandler's results but the process seems very familiar with bits of data, collected years ago, all of a sudden snapping sharply into relevance.

In order to uncover and develop the often hidden narratives, to really get under the surface, it was necessary to consult not just the reliable archives but to reach out to unconventional less reliable and sporadic sources such as eBay key word searches, Ancestry family history searches, and Facebook place "memory" groups, groups such as Scunthorpe Memories, Scunthorpe Transport and Industries and Scunthorpe Steelworkers Past & Present.

So what can one do faced with an eclectic range of incomplete and potentially false data? Firstly I tried to gather as much data as possible, secondly I tried to cross check to reliable sources, and thirdly, if that was not an option, then I tried to cross check within those less reliable sources. Finally I had to make a judgement as to plausibility. In the end, though, the answers to my research questions are not reliant on any one piece of data but on layers of data averaged out, if you will, over the eclectic range of sources.

Chapter Three

Terraforming Manley: Preparing the ground.

The purpose of this chapter is to situate the reader in the study area prior to 1859, the year significant change in operations and landscape begin to happen. I will aim to describe the landscape, the changing pattern of landholdings and landholders that would seem to be crucial mechanisms that together build towards a situation where exploitation is possible. In particular I will point out the connections of actors over distance so that the reader can appreciate that this is not just a story internal to Manley but part of much more geographically and historically diversified trends. I will also orientate the reader in operations concerning the smelting of ironstone and their moving location, over time, due to the interaction of surplus and technology. This interaction led to a reasonably short window of time in which operations of that magnitude could reasonably be expected to have taken place. I will also be presenting some of my own statistical analysis of census data to show the shifting relative importance of each of the five villages that are the basis of the settlement we now know as Scunthorpe, prior to the change in nature of operations. Whilst I will predominantly be writing the thesis in chronological order there are times when it will be more expedient to press some aspects to a conclusion irrespective of chronology.

The operations and events I am writing about have their physical manifestation in the northern part of the historic county of Lincolnshire. The governmental organisational entity names and structure change considerably over time (which is in large part due to the requirements of operations) but to avoid confusion I will continue to refer to the general area as Manley. The western part of Manley is usually better known by as the "Isle of Axholme" or locally just as the "Isle".

The terrain of northern Lincolnshire can be described simply but reasonably accurately in this way: flowing from west to east to the north is the river Humber, flowing south to north on the west and splitting the Isle of Axholme from the rest of Manley is the river Trent and running parallel with that and to the east of it is the smaller river Ancholme. In-between those two rivers lies a ridge which slopes gradually to the Ancholme in the east and more steeply down to a flat plain which runs to the Trent in the west. The width of the ridge varies (east-west) between 4 and 5 miles and extends as far as Lincoln to the south (some 30 miles), where there is a gap, before it continues further south. In height it peaks at about 250 feet above sea level with much of it being at about 150'.

Occupation of the area and particularly the ridge has been suggested as far back as Palaeolithic era (Armstrong 1981, p 1) and is well documented from the Roman and Anglo-Saxon eras. The area formed part of the Danelaw during which the majority of settlements existing today were created or renamed. At that time the area now known as the Isle of Axholme, the flood plain of the Trent and some of the area to the west of the cliff consisted of a large marsh which extended even further to the west and covered some 300 square kilometres. To a lesser extent this also affected the Ancholme valley with it remaining a sluggish winding river with a swampy plain until the 1600's.

Thus partly as a result of the topography the subsequent Manley parishes that were established to the west of the Trent tended to have a toe in either the Trent or the Ancholme. The different characteristics of these two rivers will ultimately be reflected in the types of technologies developed to utilise the land abutting them. This will have real consequences on subsequent developments away from the rivers.

Along the ridge, from north to south, lay the long established villages of Crosby, Scunthorpe, Frodingham, Brumby and Ashby. South of Ashby lay the village of Bottesford . The etymology of the village names suggests a strong Scandinavian link with Frodingham being the Anglo-Saxon exception⁵.

In the centuries that followed the relationship between people involved in agriculture and the way that land was organised and owned was under slow but continuous change. It is tempting, in today's mind-set, to feel that there is a clear distinction between agriculture and the rural on the one hand and industry and the urban on the other. However agriculture is not and never was entirely about food production, it provided raw materials for further "industrial" processing such as wool and leather, and any urban settlement, however sparse that might have been in Anglo-Saxon times, was situated where it was for reasons relating directly to the limits of agricultural technology of the time as much as it was for any other reasons. The processes involved in the development of operations in food production or the production of wool, leather etc. are fundamentally the same as those for the production of iron.

An example of the way "agricultural" surpluses were changing the physical environment, to the west and south of our study area, is the trade in wool in the 1300's and 1400's. This was not only a spur for early enclosures, including some informal enclosures in Ashby, but also profits from it were channelled into many new or vastly extended Lincolnshire churches that completely dominated and changed the nature of their urban settings.

Although happening at different rates across England feudal rights were monetised, amalgamated, exchanged, traded or abandoned earlier than one might perhaps imagine, leading eventually to the enclosure of virtually all land. The last Parliamentary enclosure in the study area is in 1875 (nationally enclosures would continue into the early part of the 20th century) however piecemeal enclosure had been happening for centuries beforehand. The reasons for enclosure could be various. Apart from parishes where no reason is discernible, Thomas Smith (2012, p144), identifies 11 other reasons for enclosure which are:

"The promise of increased productivity & rents

Changes in ownership (as a catalyst for change)

Rising animal population

Bringing unproductive land into use

To effect drainage and warping

⁵ (Ekwall 1981)

Preserve or confirm mineral rights Shortage of building land Emulation Expression of fitness to be a member of the gentry Validate property swaps & tithe abolition Mitigate the cost to the parish of the poor"

Thus we have a long period of gradual and piecemeal enclosure where the prospect of the production of surplus is changing the physical structure of the landscape.

Enclosure took place by a number of mechanisms; informal agreement, degree in chancery and by act of parliament. The latter could be expensive so where the land was poor or largely in the hands of one owner, as with the settlements we are concerned with, it tended not to be formally enclosed till the 1800's.

Parish/area	Date of Enclosure Award
Ashby	1809
Crosby	1812
Frodingham, Scunthorpe & Gunness	1834
Brumby Moors	1871
Brumby Commons	1875

Figure 3 Enclosure dates.

Something like 2/5^{ths} of Crosby, 1/10th of Scunthorpe, 3/20^{ths} of Frodingham and 1/5th of Ashby were already enclosed by agreement prior to the acts.⁶ There were failed attempts at Parliamentary enclosure earlier and Brumby was named in a bill but was struck out by the actions of Earl Beauchamp (one of the major landowners) in the House of Lords (Armstrong 1981, pp 14-23) but the central part of Brumby seems to have been enclosed by mutual consent before 1843. The spur to enclose Brumby Commons is very particular as we shall see.

If we were in any doubt about the potential of operations in "agriculture" to transform the landscape at a scale we more commonly associate with "industry" we should consider that in 1626 Charles I invited Cornelius Vermuyden to drain Hatfield Chase and the Isle of Axholme just a few

⁶ Visual assessment of enclosure maps.

miles to the west of the villages we are interested in. Approximately 300 km² was drained and completely transformed for which Vermuyden and his partners (who bore the cost) received a third of the land with the Crown and the commoners also receiving a third each. Arable and grazing opportunities were now brought to land that used to have 900-1200mm of water on it for large parts of the year. The landscape impact and impact on operations of this scheme are lost to us today as the area conforms to our expectations of a "rural" landscape produced and confirmed to us in "rural" narratives. We might contrast these operations with the subsequent circa 10 km² of ironstone operations both in scale and in time, thus showing that operations were producing really significant "terra-forming" changes in and adjacent to Manley over two hundred years before the exploitation of ironstone and that this was being done by actors from wide geographical area with only an indirect connection to Hatfield Chase.

Shortly following the drainage of the Isle a first attempt was made to drain the Ancholme valley by erecting sluice gates where it joined the Humber and cutting a new straight path for the river through the previously winding path, in effect canalising it. Another significant operation driving enclosure locally, but on the banks of the river Trent, and involving significant engineering works was the agricultural improvement known as warping. In this process fields adjacent to the Trent were embanked and drains from the Trent were created to them so that a controlled flooding of silt rich river water occurred and the silt was then allowed to settle out.⁷ This improved the fertility and hence the yield of the land with an added benefit of levelling the field too. Warping seems to have developed from the late 1700's (Beastall 1978, pp 71-79).

Smith (2012, p 345) makes the point that parishes with a toe in the river Ancholme required to drain before they enclosed and parishes with a toe in the rive Trent required to enclose before they could warp. Thus it is the needs of operations, rather than enclosure per se, that drove organisational change and continued to do so as we will see.

We can now begin to look at some of the actors and families of actors who accumulate land assets in the Scunthorpe area. This, if not entirely new then vastly expanded, group of landowners/controllers vied with the titled landowners. This group can be split into two broad types: those that pursue the production of surplus from working the land and reinvest in further land purchases and those who have made surplus elsewhere and seek to turn them into assets in land. Both appear in our study area.

For example John Angerstein was one of the latter types. At some time he acquired the Lordship of the Manor of Ashby and was listed as a recipient of land in the enclosure award of 1809, gaining 35a 2r 0p (Russell 1982, pp 46-48)⁸. Angerstein was born in Russia arriving in London at the age of 15. He seems to have made his money in Lloyds and from a slave run plantation in Grenada and ploughed that surplus into a large art collection as well as at some point buying the lordship of the manor of Ashby and other land. It is not obvious that he ever visited Ashby. Thus we again see actors with connections over significant distance involved in the study area.

⁷ This could amount to two feet or more per season.

⁸ "His main estate purchases were the small Woodlands estate at Greenwich (Kent), where he built a villa as a summer residence, and the Weeting and Brandon estates on the Norfolk/Suffolk border. However he also acquired land in Lincolnshire and Nottinghamshire, much of which was sold after his death." http://landedfamilies.blogspot.co.uk/2014/10/143-angerstein-of-weeting-hall-and.html

Examples of the former type, about whom I will be writing below are the Healey, Parkinson, Clarke/Cole-Wells/Wells-Cole, and Skipworth families.

Of those Henry Healey⁹, of Frodingham Hall is the most significant because he was the most enthusiastic proponent among local landowners of warping, which is key to understanding why land, that later becomes important to our story, is sold by him. The Healey family seem to have extended out from Gainsborough, some 12 miles away. Smith (2012, p 95) says that George Healey, Henry's uncle, was an attorney. However George's successor, Henry, was a keen farmer who lived on his land but he over extended himself, financially, in the pursuit of surpluses through warping.¹⁰

Henry Healey¹¹ utilised his land asset to raise money through mortgages secured on his land to systematically develop his farming. He was, in fact, bringing to bear practices such as engineering and leverage finance that we might consider more associated with "industry" than "farming". There is no suggestion that he had engineering abilities and in these circumstances he hired a specialist to oversee the works.

Healey not only utilised his land to raise money but also traded his surplus in land to both manage his debt and accumulate acres in a concentrated area adjacent to the Trent where it could be more economically warped as a block. He disposed of land that he presumably believed was less productive, namely land in Scunthorpe, Frodingham and Crosby which was mostly at higher elevation and thus not capable of being warped¹². Although at the time of his death, in 1868, he would have seen the beginnings very different kind of production of surplus on that land.

The Winn family, to whom Healey sold land in 1828, already had a long association with Lincolnshire dating back to the late 16th century when they gained land at Thornton. The large Appleby Estate was purchased in 1652. The family seat was Nostell Priory, an estate near Wakefield, Yorkshire (a smaller acreage than the Lincolnshire estate). There had been a baronetcy but the last baronet died without issue and the title went to another part of the family whilst the property went to the last baronet's sister. She had married a Williamson but they changed their name to Winn upon inheritance. Thus the Winn's are to all extents part of the aristocracy, lacking only a title.

⁹ Interestingly Healey was in fact born Holgate and inherited the Healey estate through his mother, who was the sister of George Healey of Frodingham, upon the death of his uncle. We will encounter several surname changes.

¹⁰ "Another glimpse of a warped land economy, this time from the 1840's , comes from the unusual estate of Henry Healey who in 1824 inherited lands at Frodingham, Crosby, Scunthorpe, Gunhouse, West Halton and Burringham. He rented High Risby farm on the Elwes estate and Limber Grange on the Brocklesby Estate during part of the time when he turned his resources to the improvement of the land near Burringham which he had inherited from his uncles. After raising £30,000 by mortgages he purchased more land including the Ashby Duck Decoy in 1834 and 350 acres. He seems to have over-reached himself financially and there seems to have been an element of speculation in his grand schemes for warping. Between 1828 and 1837 he appears to have tackled large acreages near Burringham. ... He spent £31,760 on warping in the late 1820's and 1830's at Burringham and Ashby but it was to these lands that he turned in the 1850's when, having sold off land at Frodingham and Crosby to Charles Winn and Sir Robert Sheffield, he concentrated on farming to raise valuable crops of wheat, beans, potatoes and seed." (Beastall 1978) pp74-75

¹¹ For an outline of the Healey family see: Lincolnshire Archives Committee Archivist's Report 22, 1st April 1970 – 23rd March 1971, pp53-55

¹² Beestall, (1978) pp75-75 for more detail on Healey. See also Smith, (2012, pp 228-234). Smith also has detail on George Healey instigating a formal part enclosure in Ashby concerned with grazing rights. pp 97-99.

The land they owned in Scunthorpe and Frodingham was purchased from Healy for just under $\pm 64,000$ and a further $\pm 40,000$ was spent on it. It is said that the money to buy and renovate the estate (about ± 9 million in today) was borrowed at 4-4.5% and the resulting estate was found to yield only 1.5-2% thus eventually leaving the Winn family with a substantial and growing cash flow problem¹³ such that by the 1850's they were trying to dispose of assets and borrow from other family members.¹⁴

The motivation(s) for buying the land from Healey remain obscure. The land did adjoin Appleby and therefore was known to them and the Winn's would have had knowledge of the poor quality of some of the land which had at times only been fit for use as commercial rabbit warrens. With warrening declining it is possible that the Winn's saw possibilities in using techniques like marling to bring about reasonable improvements in production. There is no evidence suggesting that Charles Winn (1796 -1874) took a technical interest in farming whereas his son Rowland (1820-1893) appears to have done so when he took control of the Appleby estate¹⁵.

Thus we see that technological change within operations (in this case warping) caused the realignment of landholdings, placing, by chance, little understood and at that time unusable ironstone reserves into the control of an actor whose son would turn out to be arguably the only actor with the capacity and desire to exploit them. Randomness is creating pathways here which have far less certainty viewed from the past forwards than they do from the present backwards.

The emerging pattern.

Returning to the wider landholding pattern which will be important to us for understanding urban development in the villages I have, from various sources, plotted a map, below, which shows the immediate post enclosure landholdings in our villages. Enclosure had been an ongoing and informal process that is fully formally codified and legalised with enclosure acts. It is operational reasons, such as draining, shepherding, and warping, that have driven this change. In the course of enclosure the large landowners such as the Sheffields, the Beauchamps and the Winns may have acquired more definitive and legalised control over land they de facto controlled anyway, certainly Rowland Winn skilfully used options available to him under enclosure legislation to out manoeuvre Beauchamp, and those with little in society may have been left with less, but there is a section of society in the middle who now have control over significant landholdings in our study area which will

¹³According to Wells (2006, p 4) the source for this is "An undated manuscript notebook composed by Timothy Farrar describes *the Pedigree of the Winn Family and their Estates* (NP C6/10)." This information is also presented by Cross, (Cross 2015, p 26)citing the same source in the Nostell Papers held in the West Yorkshire Archive.

¹⁴ (Wells 2006, p 4), and (Cross 2015, pp 26-27),. However Cross states that: "The Appleby estate was solvent, but was insufficiently profitable to meet all the family's obligations." In a conversation with me, Cross elaborated that all mortgage and debt charges were allocated to the Nostell estate which would artificially boost the apparent performance of Appleby and that although Rowland Winn was aware that the family had debts he was not aware of the full scale of them till his father, Charles, handed control to him in the spring of 1857 when Charles left for an extended tour of Europe.

¹⁵ "Lord St. Oswald took a deep and practical interest in agriculture..... he did not favour the new-fangled panaceas and schemes but his agricultural knowledge kept pace with the times and to the last he remained an authority upon his subject." Obituary, Hull Daily Mail, 20/1/1893.

have an impact of future urban development. I will now examine how these holdings were accumulated by these actors and their connections with land over space and time. Here I will build on some existing research utilising genealogical and newspaper databases to generate and examine the narrative of these perhaps overlooked actors and their role in urban area production. Once again the point of all this detail is to show the connectivity of these actors over distance as well as the degree of randomness with which assets in land fall to them and their attitudes to its use once they have them. On this latter point I will contrast how the aristocracy are structured into certain positions whereas other landowners have more freedom of action.

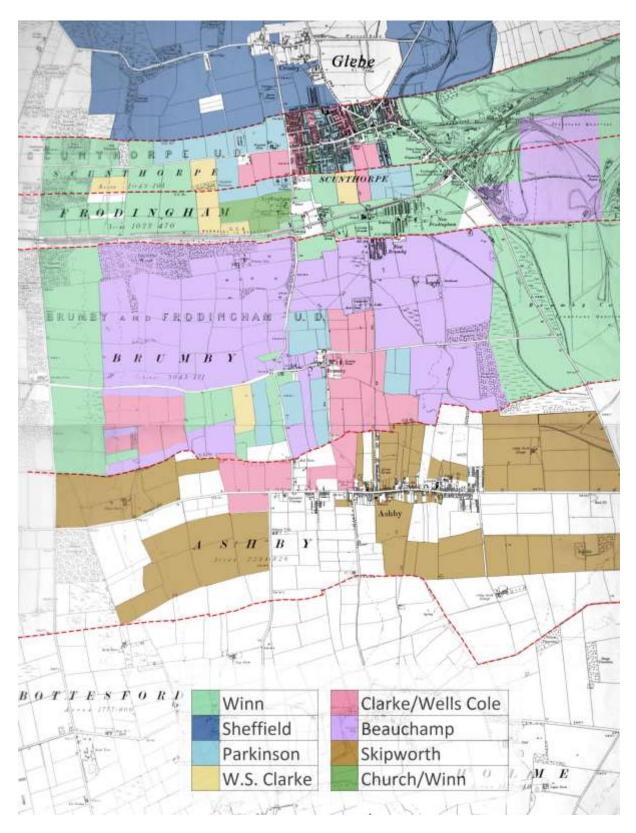


Figure 4 Approximate family land ownership in the central part of the parishes based on the position at enclosure or, in the case of central Brumby, tithe maps plotted on the 1907 O.S. map which is ©Crown Copyright. Reproduced by permission of Ordnance Survey[®]. Note some of the "old enclosures" in Frodingham are assumed to be Winn land as New Frodingham is built on them. Compiled by me from various sources.

To begin with let us look at the Parkinson family as the Reverend Dr. J.P. Parkinson is cited¹⁶ as being amongst the first to sell land for development in the village of Scunthorpe. The Reverend J. Parkinson (1753-1840) lived at Ravendale Hall near Grimsby, some 22 miles from Scunthorpe. He was for 43 years the Rector of Fittleton in Wiltshire, some 163 miles from Scunthorpe, which seems to have been connected with his association with Magdalen College, Oxford, of which he was a fellow. He was also Rector of Brocklesby (seat of the Earl of Yarborough and 10 miles from Ravendale). In the Return of Owners of Land, 1873, his successor is credited with 2,901 acres and from enclosure notices we can see that some, perhaps most, is located in the parishes of North Thoresby and Healing, near Ravendale, as well as land at Gayton le Marsh¹⁷ some 36 miles from Scunthorpe. We see that Reverend J. Parkinson had land and connections across a wide area¹⁸. His death in 1840 saw control pass to his widow, Mary and their daughter, also Mary (1812-1873). In 1841 she married a Reverend Doctor John Posthumous Wilson (1809-1874) born in Louth and former Proctor of Magdalene College Oxford, then curate at nearby Marsh Chapel¹⁹. He changed his name to Parkinson at the time of the marriage.

By 1913 a son is still in control of land in Brumby, North Thoresby and now principal landowner in East Ravendale but is not mentioned in Frodingham²⁰, Scunthorpe, Healing or Gayton le Marsh.²¹ It is speculative but we could see the proceeds of outlying land sales being utilised to concentrate ownership around a "home base" in East Ravendale, as with Healey and Burringham.

The branch of the Skipworth family, awarded 648 acres in Ashby at enclosure in 1809, originated in Alvingham near Grimsby as a farming family. At some point prior to 1801 they bought land from George Healey in Ashby and qualified for an enclosure award. At one point they made the decision to pass the bulk of the land to a third son (something unlikely to happen in a titled family and showing a flexibility in asset management in this class) who was listed in 1873 as having 5,542 acres. He, though, was no longer a farmer but a barrister who lost all the estate in 1888 partly by dint of getting involved on the wrong side of the long running Tichborne inheritance/identity cause celebre. The Ashby land seems to have gone to another brother (who died without issue) sometime between 1825 and 1842 and thence to a nephew from Belton sometime between 1868 and 1872. This nephew was also no longer a farmer by occupation but was a solicitor in Wakefield for some years and in mid-life became a barrister who eventually lived in Bournemouth. We see that the acquisition of land, for operational purposes, can lead to it moving within a family to actors who are no longer primarily involved in those operations and remote in distance to them. Unlike the landed aristocracy, who are more entangled with their land, these actors have more freedom and are more easily inclined to dispose of their holdings should opportunities arise or circumstances change, and in this case we see dispersal due to debt and dispersal in Ashby due to agricultural depression and rise in alternative opportunities. This will be a recurring pattern.

¹⁶ (Armstrong 1981)

¹⁷ Some of the land is in Scunthorpe & Brumby.

¹⁸ It would seem that the Reverend J. Parkinson was the second son with an elder brother Robert who died leaving family land to his brother. Under a system of primogeniture second and subsequent sons often looked to the church or the army for a career.

¹⁹ He is seemingly a clone of her father.

²⁰ Although a Parkinson is involved in a land sale in Frodingham as late as 1931 according to title I obtained from the Land Registry.

²¹ Kelly's Lincolnshire 1913.

Key pieces of land in the Scunthorpe enclosure were granted to Robert Clarke (1761-1835) who also had land in Brumby. He died without issue and left his land to Williamson Cole Wells (1797-1851) of Dunstall (nr. Gainsborough) provided he changed his name to Clarke. At the 1851 census Williamson was living in Brumby Hall (then still a Beauchamp property) and was listed as a "Land Proprietor of 1,000 acres". It is said that he inherited land at Faldingworth, Ashby, Brumby, Scunthorpe, and Winterton, which must presumably have been the Clarke land. He would appear to have died without issue and the land would seem to have passed to William Wells Cole (1821-1867) originally of Fenton, Lincolnshire and subsequently of Newstead Priory, Brigg. In the 1873 survey he was listed as having 860 acres in Lincolnshire. From newspaper court listings we note that there was a long running case before Vice Chancellor Malins re the estate of William Wells Cole (Wells Cole v Brown) which is first mentioned in 1877 (ten years after his death) and last mentioned ("second further considerations") in 1887. However it is unclear if it hindered potential land sales.

The important pattern here is of families initially making a surplus farming, reinvesting that surplus in more land, possibly for specialist farming enterprises such as sheep or beef etc., sending their children off for a formal education resulting in them gaining jobs or becoming self-employed in professional or commercial enterprises and cutting ties with agriculture as such (although still being land owners). Once in this position, where there is little physical or emotional tie to the land, the sale of outlying parcels of land becomes more probable. Had this land been part of an aristocratic landholding then the direction, dispersal, and timing of the urban settlement would have been significantly different. We will see a similar pattern play out in a different context later.

Despite William Skipworth being listed as Lord of the Manor of Ashby in an 1842 directory²² at the 1841 census there was no Skipworth present in Ashby. In the 1873 survey of landholdings the Executors of W. Shipworth were credited with 379 acres in Ashby and given that there were 648 acres at enclosure I deduce that 269 or 41% of the Ashby land is sold between 1809 and 1873 and no Skipworth is mentioned in a directory from 1913 in relation to Ashby, so probably the remaining 379 acres are sold between 1873 and 1913. So what we see by the 1850's is an absentee landowner no longer interested in farming per se but owning farming assets as we enter an agricultural slump. Between 1867-1903 farming profits almost halve (Mitchell 1988, p 215). Thus opportunities to sell land where there is demand for urbanisation would look attractive. Unlike the Parkinsons and the Wells-Coles the Skipworths seem not to have engaged in development directly.

²² He must have bought that title as at enclosure John Angerstein is Lord of the Manor.

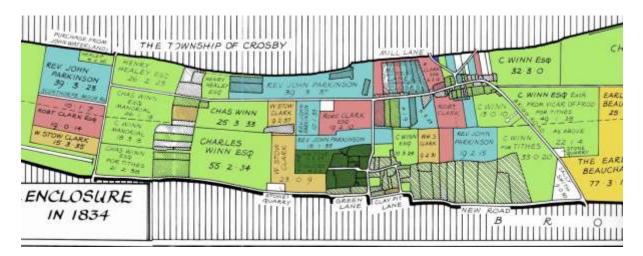


Figure 5 Scunthorpe & Frodingham enclosure map detail. Centre of Scunthorpe village v shaped feature top right, centre of Frodingham village + shaped feature centre bottom. Original black & white plan by Rex Russell in (Armstrong 1981), pp 5-6. Hatched areas are old enclosures and some assumptions as to ownership have had to be made. Copyright North Lincolnshire Council, used with permission.

Class differences in attitude to landholdings

Let us now consider some of the issues that large landowners were facing during this period. Within the economy there was pressure to drive down the rewards for the rentier, who was seen as someone who holds the production of surplus back (see: (Ricardo 1817, pp 33-47)). It is also wrong to think that in a system of primogeniture, as run by most asset owning families at this time, the eldest son "gets everything" and has freedom to do what he likes with it. Firstly he will have responsibilities to the remainder of his family to provide them with accommodation and financial support, including accommodation for the Dowager, dowries for his sisters and positions in the estate/army/church for his brothers. He will have parish responsibilities for the vicar's living and maintenance of the church. In addition he will have a large house, with staff to maintain it, which can be seen more as a "corporate headquarters/town hall/hotel" than a home, as well as a London property, which again has as much of a "business" purpose as it does a leisure one. There will be other expenses I have not mentioned. These were high overheads that would undoubtedly be both overstaffed and underutilised as well as very difficult to rationalise and asses the productivity of. The result of this would not have necessarily been so detrimental had he been able to utilise all the assets and profits available to him but many of those may have been entailed, settled, or in the hands of trustees and thus potentially unavailable to him.

Whilst the lower tier of landowners emulated their larger counterparts to an extent they do seem to have much reduced financial burdens and show greater flexibility and pragmatism on the whole. The Skipworths, for example, bypass potential inheritors who would appear not to be likely to have issue and they bypass a likely financially incompetent inheritor also (Skipworth 2016). As we have noted they were also freer to dispose of land.

For members of the aristocracy selling land assets to clear debt was felt to be socially unacceptable amongst one's peers, witness this extract from a letter by the Earl Fitzwilliam to the Duke of Devonshire who was then deeply in debt and considering a land sale: "You are not in difficulties – nothing like it – you have a large debt – so do I – yours may be greater than mine – I believe it is, but it is not a debt to overwhelm you – by no means – you have a vast disposable income, and the only advantage you will derive from this sale, is the difference between the rents of the estate you sell and the interest of the debt you pay off... (There follows a worked example)... But what do you lose in order to gain this small proportionate addition to your disposable income? Why, you lose greatly in station – You are now, taking all circumstances into consideration, the first gentlemen of the East Riding of Yorkshire..." (D. Spring 1951, p17)

However sometimes sales had to be made regardless and Charles Winn eventually decided to sell the Thornton land in 1847 and for a time this alleviated the Winn family debt problem caused mainly by the purchase of the Healey land. Charles' son, Rowland, moved to Appleby Hall in the early 1840's and, as we noted, he took a technical interest in farming methods. He also developed an interest in the potential of railways. Railways opened up a means to get goods to markets that were impossible without them, they compressed space and time. Previously the only other option for bulky cargo, such as the coal mined on the Winn's Nostell estate, had been the canals²³, inland waterways or costal shipping.

Thus we have a brief outline of the types of actors controlling land assets in the study area, what circumstances have developed and what sort of mosaic of ownership has developed together with an appreciation of significant changes to the landscape that have already taken place and are set to continue. We have also seen where and why there are different levels of fluidity and stability within landholdings engaged in operations in "agriculture" which is crucial to understanding future operations. Now, in order to understand the dynamic of what happens to population in the study period, we should next give some consideration to the build up to that period.

Populating Manley.

We can broadly say that population of the study area increased slowly post Norman invasion but was savagely cut back in the middle ages and took a long time to recover. For reference the average density for Lincolnshire today is approximately 415p/mile².

As we move to the nineteenth century we are able to see more accurate data from census returns which I have interpreted below and from which we can compare the local situation with the national one as well as seeing the relative importance of the villages to each other.

²³ His father Charles Winn was a director of a canal company.

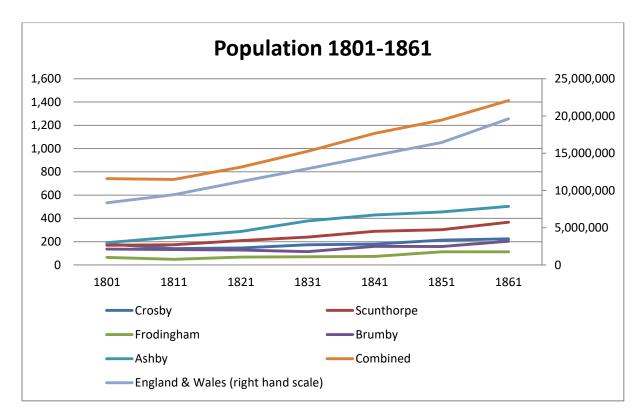


Figure 6 Census population figures of study area 1801-1861 compared with England and Wales. Data from Histpop.org and (Armstrong 1981)

In 1801 there were 741 people in the five-village area that would form the present-day Scunthorpe, which would appear to be a modest increase on the approximately 720 souls for the wider area surveyed in 1712. We can see from figure 6 that between 1801 and 1811 the area fails to grow but from there till 1861 it matches or very slightly exceeds the rate of growth for England & Wales as a whole. However the rate of growth varies dramatically between our five settlements.

	Crosby	Scunthorpe	Frodingham	Brumby	Ashby	England & Wales
1801	180	169	65	136	192	8,893,000
1861	225	368	113	204	503	20,066,000
Increase	25%	118%	74%	50%	162%	125%

Figure 7 Relative growth rates of study area 1801-1861

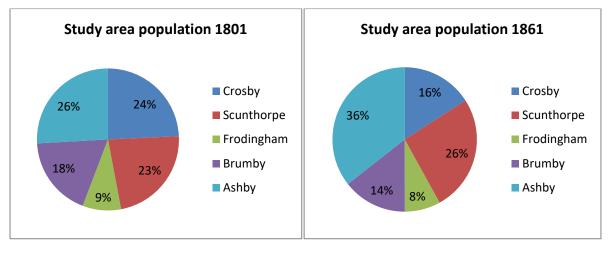


Figure 8 Village % of total in 1801

Figure 9 Village % of total in 1861

It can be seen from figure 7 that whilst all villages experience some growth Crosby only experiences 1/5th, Brumby 2/5th and Frodingham 3/5th national growth, whereas Scunthorpe experiences similar growth and Ashby comfortably exceeds it. Comparing figure 8 with figure 9 it can be seen that in 1801 approximately one in four people in the study area live in Ashby and a similar proportion live in Scunthorpe. By 1861 more than one in three people now live in Ashby and slightly more than one in four live in Scunthorpe.²⁴

In the census return for Ashby in 1861, I found 73 agricultural labourers & seven other labourers; 16 farmers of which one was also a cattle dealer, one a carrier and one a publican; three farm bailiffs, three shepherds and one plough boy. The number of resident farmers was possibly on the high side (plus there was a Land Proprietor, Henry Healey, resident). However there were; cordwainers, dressmakers, carpenters, tailors, millers, grocers & drapers, ropemakers, blacksmiths, carriers, a butcher, a wood dealer, a saddler, a police constable, a post officer and even a photographic artist. This would appear show a community based upon being a service centre to the wider agricultural community. Agricultural surpluses, it would seem, were able to support these services.

For Scunthorpe, in 1861, I found; agricultural labourers, other labourers (likely ironstone miners), farmers of which four had additional jobs as carter, bricklayer, publican/grocer, and grocer/bricklayer. There were also; bricklayers, dressmakers, a milliner, a bonnet maker, shoemakers, a tailor, a grocer, carpenter/wheelwrights, millers, a letter carrier, a policeman and a rat catcher. Here we seem to be keeping pace with typical growth in England & Wales.

Ashby's above average growth could be partially as a result being on what was then the main route to the Trent River ferry crossing.

Scunthorpe like Ashby is already less tightly controlled by a dominant landowner, as was the case with Crosby, Frodingham, and Brumby.

It seems, then, that urban expansion, the production of surpluses in people, housing and so forth, prior to the exploitation of the ironstone occurred in places where no single landowner dominated and/or where waypoints exist between other centres of activity.

²⁴ All census data from <u>www.histpop.org</u>

Establishing ironstone operations in Manley.

Now I am going to present, in the same way as I did above, the census data from 1861-1911, a period that covers the establishment of ironstone operations, so that the reader can get some idea of the scale of change I will be discussing after this section.

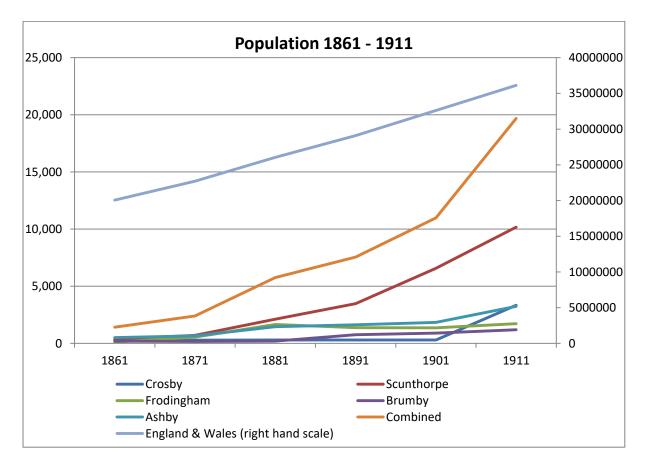


Figure 10 Census population figures of study area 1861-1911 compared with England and Wales.

	Crosby	Scunthorpe	Frodingham	Brumby	Ashby	England & Wales
1861	225	368	113	204	503	20,066,000
1911	3339	10171	1734	1197	3237	35,982,156
Increase	1,384%	2,664%	1,435%	487%	544%	83%

Figure 11 Relative growth rates of the study area 1861-1911

During the period of establishing operations in the study area it can be seen from figure 11 that population growth begins to outpace the national rate of growth from circa 1871, which, as we will see, coincides with the establishment of a second wave of smelters, but growth really accelerates in the first decade of the 20th century in advance of the final smelter appearing in 1910-12.

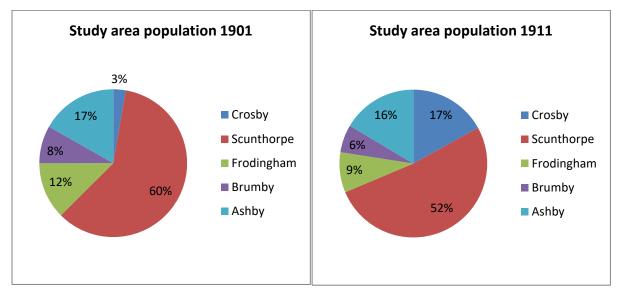


Figure 12 Village % of total in 1901

Figure 13 Village % of total in 1911

Again the overall growth overshadows the picture in each of the villages. Whereas Ashby had been the leading settlement in the 1801-1861 period by 1871 Scunthorpe has surpassed it. By 1901 three in five people in the area live in Scunthorpe. The positions of Frodingham and Brumby have now been reversed, thanks largely to the workers housing development of New Frodingham and the smaller New Brumby.

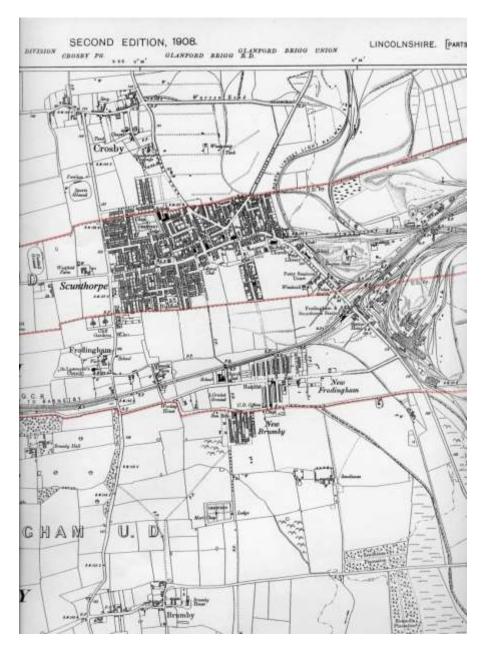


Figure 14. 1908 Map of parts of Crosby, Scunthorpe Frodingham and Brumby. Note the relative size and position of New Frodingham and New Brumby. Note also how building in Scunthorpe is constrained by township boundaries with development just beginning to cross the line into Crosby. ©Crown Copyright. Reproduced by permission of Ordnance Survey[®].

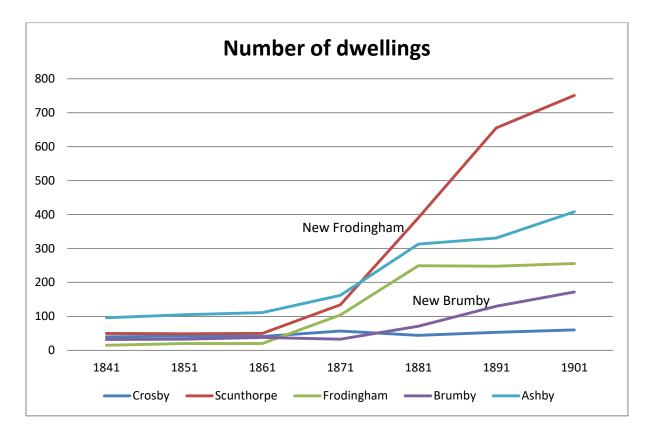


Figure 15 Number of dwellings per settlement from census data.

"Blessed are the Poor" (lands).

Having summarised the pattern of landholding, the slow but increasing and specific growth in the area arising mainly from surplus production in "agriculture" I now want, in this section, to further develop the Winn family motivations and the trajectory of ironstone smelting in the UK so that we can see how surplus production arising from the exploitation of ironstone came to be possible in the area.

The catalyst for change lies with the Winn family and their acquisitions in 1828 from Healey. Rowland Winn was based at Appleby Hall, some 4 miles from Scunthorpe, probably from 1839 (Wells 2006, p 3). He was tasked with looking after the family estates in Lincolnshire for his father.

The Winn estate near Wakefield, Nostell Priory, still had a large house fitting of the baronetcy that once went with it. Examination of its present state, and the various plans there were for it, show the impact of the availability of surpluses over the years including an additional pavilion that was built but not fitted out for habitation till ironstone revenues arrived some 90 years later.

The sale of land at Thornton Curtis, Lincolnshire, mentioned above had paid down debt somewhat but interest payments and debt continued to rise again as Charles Winn was an avid collector of antiquities and paintings. Cross (2015, p 28) tells us that Rowland Winn wasn't aware of the full scale of the debt situation until he was handed full control when his father went on extended European travels in 1857. This was because, according to Cross, debt interest was only charged to the Nostell accounts which Rowland did not examine closely until then. However Wells (2006, p 4) says that there were attempts to sell paintings and land etc. as well as raise family loans prior to this date, and so one must conclude that Rowland knew of some financial pressure even if he was not aware of the extent of it. I am confident that I can say that levels of debt became a significant motivating factor for Rowland once he was aware of it.

As I have stated much of the ex-Healey land was poor quality and in addition to warping the relatively small amount of Trentside land, Rowland Winn marled the poor land near the village of Scunthorpe. This type of farming regime is sometimes called high farming and consumes significant resource but obviously with the intent of significant increases in production. Marling falls into two similar but slightly different operations. A sandy topsoil, as there was near Scunthorpe, is naturally acid and this both retards normal food crops and promotes certain weeds. Sandy soils also drain freely and may "burn up" in a dry summer. One type of marling then is to dig up lime rich clay from somewhere else and incorporate it into the sand thus in theory improving the water retention properties and altering the pH. The other kind of marling involved digging the underlying lime rich stone and burning it in-situ, to break it down, and spreading the results over the field and it is this latter that Rowland Winn used. In a letter written five years later (Wells 2006, p 5) Winn relates that following such an operation in 1854 he noticed iron at the bottom of the marling pit following this particular burning. Although there would later be several alternative narratives as to the circumstances under which the iron was "discovered", this version seems to be the most likely.

Rowland Winn's business interests reached beyond the Lincolnshire estate. He realised that it was not sufficient just to have a product; you must have a means of getting that product to market. Part of the reason he realised this was because coal had been mined on the Nostell estate from the 16th

century and in the early 1830's Charles Winn had sunk a new shaft to further exploit that.²⁵ The coal had only a local market as heavy, bulky materials were difficult to move any distance, but due to rising demand the pressure to find a way to move them further was increasing.

As I discussed in the introduction operations exert a constant pressure to collapse space and time, which bring previously unusable deposits of raw materials into viability. It would seem that Rowland attuned himself to the developments in the production of surpluses because of pressures of debt and the requirement their estate had for wider product distribution.

It is one thing to have something and quite another to be able to exploit it. The physical siting of the iron industry in England shifted over time. From the long past the fuel for smelting was charcoal obtained from forests. The physical characteristics of charcoal in a furnace are that it will not take a large weight above it before it crushes. This is a limiting factor of the size of furnace. Smelting iron also requires the blowing of air through the furnace and the rate at which this can be done is also a limiting factor. Although a number of furnaces could be and were grouped together to increase production it can be seen that availability of wood for charcoal was a limiting factor too. Rising demand, because in use iron was pragmatically validated, gradually increased pressure to develop alternatives and two key developments were forced. One is the substitution of coke²⁶ for charcoal, as coke has a greater crushing strength and will permit the building of much larger furnaces, and the other is mechanical blowing. Both of these technologies were known about for some time before they were widely adopted. Inertia within a particular operation, not the least of which being costs already sunk into particular method/equipment but also including things such as reliability and market, can be particularly strong.

The eventual switch to coke moved the industry from the forest to the coalfields where, apart from the coal to make coke, there were found to be nodules of ironstone in the clay measures between the coal measures, thus co-locating two critical ingredients and compressing space and time. Further it was the coalfields that first developed the railway and were the first to be connected to the market, further compressing space and time for producers.

However the ironstone in the clay measures was worked relatively quickly and demand continued to grow but as the railway network expanded it became possible to consider looking for ironstone deposits further afield and away from the coalfields. So it was with the deposits in the Cleveland Hills south of Middlesbrough. Middlesbrough was a planned community, from 1829, for the purposes of exporting coal and thus well connected by both rail and water. An iron foundry and mill was established in the town by Bolcklow & Vaughan²⁷ in 1840, which initially processed Scottish pig iron, and 1846 they established a smelting works some 20 miles away at Witton Park. They chose that site because it had ready access to coke, coal, ironstone (in the coal measures), limestone and the railway. Unfortunately for them the clay measures did not deliver up enough ironstone and this meant additional costs importing ironstone from other parts of the country. This pressure forced Vaughan to look for untapped sources of ironstone as close as possible to his plant. There had been

²⁵ (Cross 2015)

²⁶ Coke is, very simply put coal heated with minimal oxygen much like charcoal is wood heated with minimal oxygen. Useful tar type by-products are also made in the process.

²⁷ Bolckow, Vaughan & Co. The company set up by Henry Bolckow (1806-1878) & John Vaughan (1799-1868) became an industrial giant but later faded and merged with Dorman Long in 1931.

various unsuccessful attempts to market the ironstone found in the Cleveland Hills from 1811. By 1848 the outcrop of the seam, where it meets the North Sea, was being exploited at Skinningrove by John Roseby (senior, about 1800-1880). The ironstone was initially collected from the beach by boat. This operation was acquired by Bolckow, Vaughan & Co. and Vaughan went on, perhaps with the assistance of Roseby but certainly with the help of mining engineer John Marley, to locate the seam further inland in the Eston Hills on the land of Sir J.H. Lowther in 1850.

In a forerunner to the Winn "discovery" narrative that we will come to in the next chapter the story here is that Vaughan and Marley were rabbit shooting and tripped over a piece of ironstone (The Northern Echo 1881).²⁸ Perhaps there is a requirement that all "discoveries" leading to great wealth must be presented as fortuitous accidents but in this case it was actually a planned operation. We briefly mentioned how Winn most probably "discovered" the Frodingham ore but we will expand on this later. Thus it is that John Vaughan is credited with "discovering" the Cleveland ironstone field. Whilst not to downplay the importance of Vaughan and Marley, the word discover is clearly an oversimplification and what the two did was locate a solution to their own problem based on reasonably reliable projections. Their success was not really in the finding a supply of ore but in finding ore that could successfully be exploited. This ironfield could be successfully exploited because they had already built furnaces nearby with the intention of utilising a different source of ore.

So with the events in Cleveland we can both see the switch from coalfield to ironfield and examine the actual "discovery" process and contrast it with the popular narrative. Whilst Rowland Winn was the lead participant in the "discovery" of the ore on his land he was clearly informed by others and it is not an out and out surprise that ironstone is present. Unfortunately for Winn unlike Cleveland there were no blast furnaces or railway nearby so the successful exploitation of the reserves required some considerable drive from him.

In-between the "discoveries" in Cleveland and Manley the large Northamptonshire ironstone bed was also "discovered". This bed extends into Leicestershire, Rutland, Oxfordshire, and Southern Lincolnshire as far north as Lincoln. Another type of ore, Hematite ore, was being worked in Cumbria prior to these "discoveries" but transport costs and isolation from the railway as well as mining costs made largescale exploitation impossible until a concerted effort was made from 1846 to construct railways to bring ore to Barrow in Furness for shipping to markets. It was not until 1859 that smelting began on a large scale at Barrow – the same year that Winn was setting out to realise the potential of his ore.

The mines of Cleveland and Cumbria were mostly underground, whereas the mines of Winn and surrounding property owners as well as the mines on the Northamptonshire beds were open cast. On top of that economic advantage the Northamptonshire bed mines were mainly covered with clay whilst Winn's mines were covered with easier to handle sand, thus giving Winn a cost advantage.

Winn faced competition more locally. His own mining engineer and vendor, John Roseby (1824-1882, son of John Roseby mentioned above), entered into a partnership with a coal mining business acquaintance from the North East called Samuel F. Okey and they opened a quarry at Kirton Lindsey only 8 miles to the south of Winn and at a place already served by a railway. The intention was to

²⁸ The Northern Echo, 7/10/1881, for example, Repeats the claim only to dismiss it.

smelt that ore in Castleford (Wells 2006, p 30) and, presumably, to vend the ore elsewhere. Indeed just under half of the 7,000 odd tonnes mined in 1861 went to Grimsby docks for further shipment. But ultimately the distances (Castleford is some 35 miles from Kirton) and the low quality of the ore saw the venture dying out in the 1890's.

We see that as the pursuit of a surplus in iron leads, intrinsically, to the mobility of ironmaking. The narrative of this mobility is one of chance "discovery" but on examination this turns out not to be the case, rather it is one of reasonable anticipation based on interpretation of existing knowledge. In the case of the study area it required a sufficiently motivated landowner of significant size to be able to exercise control in order for exploitation to happen.

The Landowners

I now want to introduce some further details concerning the major landowners which are relevant to how they saw themselves, how they were structured, and how they were motivated. I have already introduced the Winn family, and particularly Rowland Winn, who were significant actors in the establishment of the ironstone operations. I have also said something about the farming families who managed to amass control over land and are important for urbanisation. The Winn family fit into the aristocracy and they were one of three principal land-owning families in the study area which also included the Sheffield baronets and the Earls Beauchamp. With part of their almost 57,000 acre landholding (making them the largest landowner in Lincolnshire by some way) coming close to Scunthorpe the Earls Yarborough represented a potential rival but that never amounted to very much of a threat. I need to say a little more about these actors in order to give some indication of their situation relative to Winn, given they all had ironstone bearing land and thus potential to be the instigators of exploitation.

Beauchamps

The title Earl Beauchamp dates from 1815 and the base of their operations was Worcestershire, where they had over 10,000 acres with more in adjacent counties but their 2,878 acres in Lincolnshire ranked them 13th in Lincolnshire (Bateman 1878 (2014 reprint))(behind the Skipworth's and Parkinson's mentioned previously). They had no physical presence or base in the Scunthorpe area. They owe their land in the Scunthorpe area to an unusual set of circumstances which seem to again revolve around family name change as well as highlighting financial transactions of the period. According to Joanne Major (2015) the estate, centred on Brumby Hall, was in the possession of a Thomas Pindar who was unmarried but had as his mistress his housekeeper Sally Smith (b.1759). Pindar was a fellow of Magdalen College, Oxford and there he had met the then Earl Beauchamp and his brother²⁹. The Beauchamp's name had previously been <u>Pyndar</u> but had been changed to Lygon upon the transfer of an inheritance and subsequently changed back. Pindar made a will in favour of Beauchamp with Sally Smith given her lifetime's use of the estate. In return Beauchamp gave Pindar a loan of £5,000 (possibly equivalent to £500,000 today) in 1805. One can't help but feel that this is

²⁹ Note the connection here with Magdalen College which also played a part in the Parkinson family.

some sort of early "equity release". Smith died in 1833 so it was not until then that Beauchamp gained control of the Brumby lands.

1833 was still well before the exploitation of the ironstone but in appendix A below we see the comparative lifespans of the principal characters of the three families most involved in the development of Manley and if we read this we can, perhaps immediately see why the Earls Beauchamp played very much the lesser part in developments (particularly early developments) despite owning the majority of Brumby. Not only was the majority of their holding 150 miles away but four Earls died within the 50 years surrounding the development of the ironfield. These two factors most probably contributed to there being no presence on the ground and no interest in the potential for the active development of the landholding. Whilst not being proactive they are, nevertheless, not obstructive, provided they were justly rewarded.

Sheffield

The Sheffield family are a baronetcy descended from the offspring of John Sheffield, 1st Duke of Buckingham and Normanby, b.circa.1706. They sold Buckingham House to George III. The present incumbent is the 8th baronet and father to the wife of the former Prime Minister, David Cameron. Although they have land in Yorkshire they have lived locally and participated in local affairs since the 1700's. They ranked 2rd largest landowners in Lincolnshire according to Bateman (1878 (2014 reprint)). The wives of Robert Sheffield, 5th Baronet (1823-1886) and Rowland Winn, 1st Lord St. Oswald were sisters and this may go some way to explain why, when ironstone mining moved to Sheffield land, it was initially Winn's company that did the mining.

We can see from the succession table (Appendix A) that the Sheffield family might have been in a position to exploit the ironstone. Sir Robert Sheffield was only 4 years younger than Rowland Winn and he was local to the area. He had a life not untypical of the landowning classes being educated at Eton and Christ Church College Oxford. In 1842, at the age of 25 he joined the Royal Horse Guards, and was appointed Captain in 1849, retiring as a Major in 1861 at the age of 48. He was also a local J.P. and served as High Sheriff of Lincolnshire in 1872. His obituary in the Lincolnshire Chronicle (1886, p 8) states that he was very interested in the rebuilding of Flixborough Church. He was said to be "a supporter of any fund which had for its objective the well-being of the people and their social interests. ...large contributor to the fund for street lamps, flower shows, reading room, clothing club &c, &c." There is nothing to suggest that Sheffield was anything other than a decent man but we do get the impression that he is very much the stereotypical "country squire" (in contrast to the evidently more operationally minded Winn). Debt seems not to have been a particular pressure on the Sheffield family at that time.

With Sir Robert's death in 1886 we see the title pass to his 10 year old son, Berkley Sheffield (1876-1946), and clearly there was something of a hiatus then until he reaches an age where he can properly exercise authority. Sir Berkeley Sheffield was also educated at Eton and served as High Sheriff, was a J.P. and had connections with the military but he differed in being much more interested in politics and business. He was a chartered accountant and a director of the Great Central Railway³⁰. He twice became M.P. for the area, as had Winn, but by that time there were

³⁰ He had a Robinson 11e (later designated under LNER as D10) "Director" class locomotive named after him in 1913 (number 8 of 10 built before WW1).

considerably more people enfranchised. Winn was elected unopposed in 1868 and 1874 for one of the two seats in the division and only scraped in to the second seat in 1880 with 3,946 votes, 90 above the third contender. In Sheffield's era there was only one seat for the Brigg Division.

Owen Hartley is somewhat confusing. On the one hand he says: "*The.. victor in 1907 was the popular, local, Sir Berkley Sheffield...*" In the next paragraph he says: "*It cannot be said that any of the M.P.'s were greatly loved in the constituency.*" (Armstrong 1981, p 77) Hartley is also rather scathing of the performance of local MP's, Sheffield included, saying of them "*Though two, Quibell and Sheffield, were local men, neither had the political capacity to make the constituency feel that the constituency mattered on the national stage*". As for Sheffield, his time as an MP and his other political interests seem not to have had any particular vision for shaping a thing called Scunthorpe although his business decisions and the interventions in the planning process do, to some extent, as we shall see.

The seat of the Sheffield family was Normanby Hall which lies only approximately a kilometre to the north of the Lysaght's steelworks. The present Hall, designed by Smirke and completed in 1830, was significantly extended between 1905 and 1907 with the building of an east wing "containing a ballroom, and a north wing with an immense domestic service wing and courtyard." (Telegraph 2015) (Pevsner 1964, p324) This extension of the family seat is both suggestive of the increased surplus available to Sheffield from ironstone mining and, perhaps, suggestive of the fact that he envisioned a greater role for himself and the property as a powerbase for a political career.³¹

The fortunes of the Sheffield family took a downward turn following the death of Sir Berkeley which is explained in the obituary of John Sheffield, youngest son of Sir Berkeley:

"On the death of (John) Sheffield's father in 1946 the family was hit by death duties, which, along with the nationalisation of the iron mine, left them in real financial difficulties.

The estate factor put it succinctly to the four sons: "Frankly, I'm afraid we're bust." Sheffield's three older brothers were not commercially trained and, with their sister, were happy to give John the task of saving the family from financial ruin." (Obituaries - John Sheffield 2008)³²

Fortunately for the present incumbent John Sheffield was up to the task of rebuilding the family finances, forming a listed company he called Norcros (from Normanby and Crosby) which achieved much success in the City of London.

Each of these three families has played a shaping role in the changing meaning of what Scunthorpe was but none of them appears to have had a specific vision for a thing called Scunthorpe. Each of them has acted, when they had an incumbent or representative capable of acting, in what they perceived as their own interests by exploiting their own surplus and by and large assuming that what is good for them is good for everyone else. All of them had the potential to initiate ironstone operations but only Rowland Winn did. The factors that I have discussed, that gave Winn the

³¹ Political meetings and addresses were often held in or in the grounds of large houses. Winn used Nostell Priory for this purpose.

³² A similar effect must have been felt by the Winn family with the added impact of the nationalisation of the coal mines at Nostell.

advantage were: significant financial pressure, on site involvement, age, and outlook. It is quite clear that Rowland Winn was the right person in the right place at the right time. Crucially neither of the other families, despite owning land with similar potential, had an actor in place with the energy to initiate ironstone operations. Whilst Winn had these advantages one of them, the financial pressure, also constrains his ability to develop the iron field entirely on his own. For that he must engage with other actors and in the next chapter I will detail who these actors were, how they were engaged, what controls Winn was able to have on them and the private narratives they produce.

This temporal tracing of the actors in family groups has got us closer to an understanding of causality, pathways and moments of change within their orbits. It lays out for us the factors, often random, that are instrumental in change as viewed from their perspective.

Chapter Four

The narratives of the Capitalists involved in the development of the iron field and the patterns that emerge.

I want to bring attention to the importance of connectivity over space in the examination the development in Manley and having introduced the changes in landholdings and the variations in class attitudes of those with significant landholdings the aim of this chapter is to introduce the actors, individual and corporate bodies, involved in exploiting the iron field. Again there is a significant amount of detail here showing the development of a tier of actors who are able to drive operations forward and how that inevitably develops into corporate actors through the processes of operations, which I outlined in chapter two. Whilst drawing on published historical accounts I have gone beyond that using the British Newspaper Archive, Ancestry and other sources to uncover that connectivity.

I also study the letters of Daniel Adamson regarding his involvement in the early years of the iron field, a source that, as far as I can ascertain, has not been examined in this context and provides a helpful insight into the competing private narratives of early operations from the only "self-made man" involved. This is where we begin to see the development of narratives about the orefield and operations that have potential causal effect. This will subsequently lead to the development of narrative about the urban response to the orefield operations.

As I have written above, the iron industry in Britain was, over time, subject to movement depending on raw materials and technology. The successful substitution of coke for charcoal and the invention of the steam powered blowing engine from 1709 (Ashton 1924 (3rd edition 1963), Ch II) together with a growing shortage of timber for charcoal production led, by 1820, to 90% of the industry being located on the coalfield (Pope 1990, p 45) and utilizing "black band" ore often found in association with coal measures. Indeed it was this position that the Dawes brothers, later to be the first smelters in Frodingham, were in at Milton and Elsecar when they were the tenants of the previously mentioned Earl Fitzwilliam.

Hence the Frodingham ore field, with no associated coal measures was unlikely to have been successfully developed for medium to large scale iron production any earlier than it actually was. Indeed its development as an extraction *and* smelting centre seems to have had a limited window of opportunity which Roland Winn was able to exploit. Had there not been a "Roland Winn" in place it seems unlikely that either of the other two families who had potential to have exploited their surplus in ironstone would have done so and therefore we wouldn't be discussing a place called Scunthorpe.

What kind of actors were the people involved in the iron and steel industry in Great Britain, as a whole, in the period of the development of the Frodingham ore field? Charlotte Erickson (1923-2008) has written about them and it is worth summarising her findings to help us understand the context of the actors involved in bringing iron and steel smelting to the Frodingham orefield. Once we have established a general view of these actors I will give a more detailed view of those involved at Frodingham.

Erickson (1959) identifies that when steel manufacturers began their careers, in the period 1865-74, fully 28% had fathers who were a partner/owner or director in the same industry. Another 19% had fathers who were partner/owner or director in another industry and 13% had a father that was a merchant or banker. Landowners, farmers, professional men and senior managers or agents brought the total for what she describes as Social Class 1 to 89%. This figure only begins to drop as we approach WWII (62% by 1953) (Erickson 1959, p 12 table 2). Thus we can see that almost one in three of the steel manufacturers came from an existing family history in the business and that almost nine in ten came from a moneyed background. This counters the narrative of the Victorian entrepreneur arising out relatively humble origins to make his fortune. What these statistics also reveal is that 61% of ironmasters had no family background in iron & steel, although a good proportion of those had some family background in industry.

In terms of migration she identifies, from the 1861 census, 67% of steel manufacturers as being born in the same county as against 76% of the general population in her sample which includes Lincolnshire (1959, p 26 table 8). Although some of those behind the firms in the Frodingham iron industry remain a mystery to me Erickson's figure seems a very high percentage for the manufacturers for Frodingham. The ironmasters that are known to me are all from outside the county as there just isn't the pool of talent available to draw from. Nevertheless this does, to a degree, reinforce another study on migration (White 1985) suggesting that low skilled jobs were filled with local "agricultural" labour and that higher skilled jobs were more likely to be filled by migrants³³. Erickson has this to say about the Frodingham industry:

"..the two men of foreign birth who held leading offices in the 20th century were technical men who received their training before coming to Britain. Maximillian Mannaberg, whose early work in Glasgow and Frodingham was primarily concerned with the development of basic steel, was born in Leipnik, Moravia, in 1857, and trained as a metallurgist in Leoben and Vienna before arriving in Britain at the age of 27." (1959, p 28)

A little later she says:

"As Frodingham & Scunthorpe, Lincolnshire, have risen to importance in the steel industry during the past 30 years, they have drawn their leaders from outside the county. The first ironworks in the region was started in the late nineteenth century by a Leeds firebrick manufacturer, Joseph Cliff, who had married into the Kitson family of ironmasters. But since Frodingham became a subsidiary of United Steel in 1917, the Lincolnshire ore beds have been developed by Richard Thomas's and John Lysaght's which have brought their own people in from outside, rather than drawing on the local population for top managers." (1959, p 29)^{34 35}

³³ White 1985 p129 table 6.3 shows that 25% of managerial/clerical workers were born from 1-49km away whilst 80.5% of iron miners came from within that distance.

³⁴ Actually Cliff's works were the second and not the first ironworks.

³⁵ Erickson is the only source I found to hint at why Cliff may have decided to build an ironworks – his link to Kitson. Others are seemingly bemused that a brick manufacturer should "out of the blue" invest in iron.

The nearest Lincolnshire towns with any engineering or industrial expertise would have been Lincoln (24 miles) and Gainsborough (14 miles), both almost as far away as parts of industrialised South Yorkshire such as Doncaster (19 miles).

In terms of marriage she identifies the father-in-law's social class in the 1865 period as being 50% "business", 44% "landed or professional", 6% "retail trades, clerical, crafts". (1959, p 45 table 15).

"The steel manufacturers did well in their marriages...... In every period after the 1865 generation, landowners, gentlemen, farmers and professional men outnumber businessmen as fathers —in- law." (1959, p 45)

An example found notable of mention in the study and of relevance to us is that of James Henderson (1888-1945), later also on the Scunthorpe and Frodingham UDC during the attempt to produce a town plan.

"Only one case can be found of a metallurgist who rose from within the firm to become managing director. James Henderson came from Glasgow in 1889 as chief metallurgist to the Frodingham Iron & Steel Company at the age of 21. Though specialising for most of his career, he served as assistant to Maximillian Mannaberg before succeeding him as managing director in 1920." (Erickson 1959, p 71)

The number of generations founding or investing families held onto a top office has a 47% peak at two generations with only 9% making it to four generations. (Erickson 1959, p 53 table 20) Whilst not confirming the Lancashire maxim "clogs to clogs in three generations"³⁶ it does point to a potential pattern for the families involved "migrating" themselves out of the businesses, much like we saw with the middle ranking landowners. This is a theme explored by Corelli Barnett in several books, as we mentioned in chapter two, where he points out that much of British industry had been surpassed by continental and American industry some time before WWI due to a distain for careers in industry amongst certain classes. This anti-industrial/industrialisation narrative developing out of those that benefited so much from it is a theme that we will pick up in relation to the desire of Scunthorpe to attach itself to the "garden city" narrative as an alternative to its industrial presence.

Barnett's theme is broadly supported by Burnham & Hoskins (1943). Their book sets out with the premise that there was a failure in the iron and steel industry in the period studied and tries to suggest where that was. Their concluding paragraphs are worth quoting in full here:

"The factors in production are: raw materials, labour, capital and "entrepreneurship". We have noted that there was no scarcity in raw materials, though they might have been more efficiently utilized, no proved restraint on wage rates by labour apart from a rigidity imposed in the depression of the twenties, and no marked scarcity of capital except in the last decade of the period, when the industry was generally incapable of making a profit.

³⁶ "Clogs to clogs in three generations." Clogs being at the time of the industrial revolution the footwear of low paid workers, particularly factory workers, this saying implies a business cycle where the first generation found a business, the second generation build a business and the third generation spend the proceeds, the business fails and they end up back in clogs.

The remaining factor is "entrepreneurship" and our study has led us to suggest a weakness in this direction. If a business deteriorates it is of no use blaming anyone except those at the top, and if an industry declines relatively faster than unfavourable external and uncontrollable factors lead one to expect, the weakness can only be attributable to those who are in control of its activities. There is, in fact, good evidence to believe that the British iron and steel industry would not have declined relatively so fast or so far during the period reviewed had the men at the head possessed greater vision and a bolder and more energetic capacity for organization, direction and administration." (1943, p 271)

The result of this would seem to be that the kinds of actors that were required to develop and drive business forward initially appear not to continue to reproduce themselves but to mitigate the rather harsh criticism from Burnham and Hoskins somewhat, it must be said that the foreign competition had the initial benefit of watching Britain make all the mistakes in developing an industry to the point where they could, as it were, start from a better place. The relative abundance of raw materials and power in Britain meant that production, at least on a small scale, could be started up in a number of places which led to scattered small scale production whereas in other parts of the world more thought had to be given to the size and placement of particular industry. Ulrich Wengenroth concludes that cartelisation, tariffs and the part nationalisation of the railway were of significant help to the German industry and that had the British industry responded in the same way as the German industry to its technical problems (primarily high raw material costs) then British industry could have severely impacted German business (1994, pp 266-273). However, despite ups and downs, the British industry did not face the pressure to rationalise and cartelise (to any meaningful degree) till much later because it was producing surplus at a reasonable rate.³⁷

A further study of those involved in the industrialization of Britain by Francois Crouzet, although dealing with a slightly earlier time period than Erickson, broadly supports her conclusions as can be seen in this table.

Occupation of Industrialists when they founded a large industrial undertaking in Britain 1750-1850	Metal Industries %
Upper Class	2.7
Professionals	3.6
Merchants and Traders	12.6
Persons in Industry	43.2
The Land (includes Coalmasters)	8.1

³⁷ "The British steel industry was subjected to much less pressure to adapt. Each individual firm's room for decision-making was (thanks to their unusually good situation vis-à-vis raw materials and consequently costs compared to their German rivals), with the exception of the IRMA's brief existence, always large enough to allow them to stabilise their anyway fairly high returns without partly delegating their decision-making authority to superior organisations." (Wengenroth 1994, p 271)

Working Class (including Skilled)	17.1
Various	4.5
Set up directly	8.1

Figure 16 Occupation of industrialists in the metal industries. Adapted from Crouzet 1985 p149.

Self-made or not?

Crouzet goes into considerable detail about what he calls the "myth" of the humble origins of industrialists (otherwise known as the "self-made man"), which was a widely used narrative in the period. Crouzet identifies that this narrative of humble origins is used both by those who approve of industrialization and those who oppose it. On the one hand the narrative is focused on "self-improvement" and "rags to riches", on the understanding that this is generally a good thing for society, whilst on the other hand the narrative is focused on the uncouth, uneducated origin of the industrialist whose new found status, based on money, has not improved their original shortcomings and this is seen as a bad thing for society. This latter interpretation plays very much into the "anti-industrialisation metanarrative, which we discussed in chapter two painting, as it does, industrialists as uncouth. Here, then, we have an ambiguous narrative capable of (mis) interpretation. In fact, as we saw above the data would suggest that the bulk of industrialists came from fathers who were involved in industry. Thus both these narratives don't fit with the data as a statistical mean but because there are some examples which verify either narrative interpretation those narratives are not false either. This is of interest because I will be examining in detail the differing narratives between Daniel Adamson, the only "self-made" ironmaster on the ore field, and Rowland Winn.

The perilous state of Winn finances prior to the exploitation of the ironstone was not an isolated occurrence amongst the aristocracy. Many, if not indeed most, aristocrats of the period found themselves in debt to a greater or lesser degree. Writing to Earl Fitzwilliam in the 1840's, J.E. Denison (1800-1873, future speaker of the House of Commons) suggested that two thirds of English land was saddled with debt.³⁸ There were two basic options to rectify a pressing debt problem: marry well, though given the general levels of debt in the aristocracy finding a wealthy suitor can't have been easy³⁹, or sell land.⁴⁰ As industrialisation progressed a third opportunity for indebted aristocrats opened up and this was to involve themselves in industrial ventures. Some of them actively resisted change and adopted a Luddite approach, some were content to pursue roads, canals and railways but eschewed actual manufacture, perhaps the majority were happy to lease land and buildings for industry and a few were actual participants in industrial ventures.

More detail on the origins of the Milton and Elsecar works, later run by the Dawes brothers, which would be one of the first works to use Frodingham ironstone and from which the Dawes would leave

³⁸ J. E. Denison to Earl Fitzwilliam, August 18, 1847, in the Wentworth Woodhouse MSS. As cited in (D. Spring 1951, pp 3-24)

³⁹ Somewhat ironically the industrialisation of the USA provided a new source of wealthy brides for those who could wait that long.

⁴⁰ See also (Thompson, The End of a Great Estate 1955) for more information on this topic.

to begin smelting in Frodingham is given to us by Crouzet and they highlight the dangers for aristocratic investors.

"The 4th and 5th Earls Fitzwilliam had a shorter and unsuccessful involvement with the iron trade. The 4th Earl had inherited in 1782 a large estate, which was rich in coal, at Wentworth. Some lessees established there three ironworks. But in 1827 the company which operated the Elsecar works failed. The Earl decided to work them on his own account, and his son, who succeeded him in 1833, continued his policy. The stoppage of the works would have closed a large outlet for the coal mined on the estate and would have made many miners and workmen unemployed – and the 5th Earl had an acute sense of responsibility towards his fellow-Christians. Actually the Elsecar works brought losses and no profits, partly through the fault of the manager....., who was honest, and not incompetent, but certainly unlucky. This went on for twenty two years, but in 1848 the neighbouring Milton works ironworks were given up by their lessees and the daunting prospect of having to run both works obliged Lord Fitzwilliam to put both of them up for lease. The two Earls had been active and intelligent, but were reluctant and unfortunate industrialists, whose venture into the iron trade may have cost over £100,000."..... "Earl Fitzwilliam did not reside nearby and his supervision had to be carried out from a distance by mail." (Crouzet 1985, pp 71-72)

Note the interdependence assumed here between the coal and the iron. Surpluses in both are required and whilst this might not have produced a surplus in cash it is possible that the Earl would have been liable for poor law relief payable to unemployed iron workers anyway so if the losses were less than the relief the situation might have been perceived as acceptable. Note also that the Earls are "reluctant" industrialists and unable to effectively supervise the operation, unlike Winn and the other industrialists we will encounter and despite many of them being based some distance away from Manley.

So we can conclude the brief general survey into the origins of actors who were involved with the iron trade in the lead up to the opening up of the Frodingham ironfield and turn to the actual companies and what can be deduced about them. Who were their investors, what were their motives, over what distances did they operate and what were their spatial and personal connections? Were any of them actually interested in developing an urban area in Manley or are they only interested in constructing narratives about the Frodingham ironfield or even just themselves?

The Instigators and Investors.

The basic summary of the ironworks and their chronology is set out below:

Name	Main Backer	Lease date	In blast (producing iron)
Trent Ironworks	W.H. & G. Dawes	1862 (although working before lease signed under provisional agreement.)	1864
Frodingham Iron Works	J. Cliff & Hirst	1864	1865
North Lincolnshire Iron Company	D. Adamson	1865	1867
Redbourn Hill Iron & Coal Company	Winn, relatives and friends	1872	1874
Appleby Iron Company	Scottish consortium	1872	1877
Lincolnshire Iron Smelting Company	Mainly a West Midlands consortium	1872	1873
John Lysaght's	Lysaght's	1905	1912

Figure 17 Iron companies and dates.

In addition there were a number of leases for the extraction of ironstone, most notably, perhaps, to the Parkgate Iron Company (Rotherham), The Staveley Coal and Iron Company (Ilkeston, Derbyshire) and W. Cooke and Company (Sheffield). I have not reviewed all of these as their main commitment was to their existing works outside the study area. In general these were deals that were quicker to produce revenue for Winn but ultimately not his preferred option.

W.H. & G. Dawes

These two brothers were the ones who operated the Milton and Elsecar works of Earl Fitzwilliam mentioned above. William Henry (1804-1878) and George (1817-1888) were born in the West Midlands to tinplate worker John Dawes and his wife and thus they were about 58 & 45 when the lease was signed with Winn.

In the newspaper report of the subsequent bankruptcy of the Dawes enterprise in 1887 it states that:

"The firm of Messrs Dawes & Sons was founded by Messrs Jeeson & Dawes about 100 years ago (i.e. 1787) Subsequently the business was carried out by Messrs John and Samuel Dawes, The father and uncle of the late Mr. W.H. Dawes, who with his brother John) traded under the name of John Dawes and Sons. Since the death of Mr. W.H. Dawes the business has been carried on by his widow, Mrs Elizabeth Dawes, Mr. William Dawes, her eldest son having of late years taking a leading part in the concern." (Worcester Journal 1887)

We can reasonably suggest that the Dawes brothers who dealt with Winn were, at least, the third generation of industrialists. It also seems that they were the first generation to break out of the general West Bromwich area and to be involved in coal. Neither of them appears to have lived permanently in Lincolnshire at all. I can trace no issue for George and his wife whereas in 1861 W.H. lists no fewer than 12 children. Taking the '51 & '61 census records we see that his sons Joshua and William H. are listed as Ironmasters and that a son in law, John G. Swan, is also listed as one but by '61 Joshua is now described as an agent. Prior to his father's death in 1878 Joshua is listed as sharing Moseley Hall but after that he moves to a house at the Trent Ironworks in Scunthorpe and later builds a house called "Trentholme" in nearby Messingham.

Looking at some of the newspaper articles mentioning George and W.H. and their businesses, utilizing the British Newspaper Archive, we can build up a more complete picture of industrialists of the period. Of note is that it is George who appears in the press much more frequently than his brother. He sued his own puddlers⁴¹ on a number of occasions and was generally mentioned in connection with business affairs. This might lead us to conclude that George is the dominant partner except that the Trent Ironworks goes ahead despite his reluctance (according to (Wells 2006)). Mention of W.H. patenting a technical process may well suggest that he was the more technical of the two. George appears as a "name" in a number of share promotion adverts for other enterprises.

W.H. (senior) died in 1878 at the age of 74 and his obituary states that he supervised Bromford Ironworks for 40 years and that he was "born a gentleman", which could mean he was born into a family with status or simply that he was naturally an honest and trustworthy man from birth. It is noted that Joshua was to take the Trent Ironworks and W.H. (junior) was to take Bromford. The "London business", whatever that might be, is to be carried on by a manager. (The Daily Gazette for Middlesrough 1878)

The financial collapse of the Bromford Iron Works occurs in May 1887. Reports in the newspapers put the demise down to lack of orders and that for some time the works had been on what we might describe as "short time" working. The failure of such a well-known and long established concern is a great shock to the district. The report estimates the liabilities at "*nearly £150,000*" (about £17 million today). (Hull Daily Mail 1887)

The report contains this section, very redolent of the future Scunthorpe Borough motto, "the heavens reflect our labour":

"The hush, however, of the ceaseless roar of activity which pervaded the Bromford Lane district by day, and the extinguishing of nearly one hundred puddling and mill

⁴¹ Puddling is a process/furnace for making wrought iron from pig iron and later some kinds of steel. The puddler was in charge of the furnace and for the process to be successful it required skill and judgement on his behalf.

furnaces, which have for the greater part of a century <u>lit up the heavens during the</u> <u>nocturnal hours with fiery splendour, and flooded cloudland with billows of flame</u>, clearly demonstrate to the denizens of the Black Country that the sad news is only too true." (Nottinghamshire Guardian 1887) My underlining.

The narrative of the "heavens reflect our labour" must have been one that united iron & steelworkers across the UK and further afield, a universal narrative of the struggle to produce iron.

Control of the Trent Iron Works passed to the family solicitor, William Shakespeare and he held control until 1907 when the works was sold to John Brown & Co. Clearly the Dawes operation was a major and enduring one in the 1860's and with the Milton and Elsecar works being only some 15 miles from Nostell. Their commitment to the Frodingham ore field may not have produced an enduring legacy for their family or their company but it did secure for Winn a respectable smelter on the ore field, what today we might call an "anchor tenant".

The Dawes brothers were intended to contribute to Winn's railway linking the orefield to the existing line but ultimately failed to do so.

It seems clear that the Dawes interests lay only with their operations and that if they had any interest in an urban area then it might have been in the general Bromsgrove location but any evidence for that is sparse. Nevertheless the Dawes were prepared to promote the narrative of the orefield for Winn, being noted as promoters in a number of newspaper articles.

Cliff

The Cliff family built, arguably, the most successful business on the ore field. Joseph Cliff (1806-1879) was a successful fireclay and brick manufacturer and also a coal mine owner. His obituary tells us he is a *"self-made man"*, in true Victorian style, but his origins are not ones of complete poverty (Leeds Mercury 1879). His father, John (1769-1848) seems to have been a *"stone merchant"* and his grandfather, also John (1741-1832) is listed as a *"cloth maker"* and presumably he is not a weaver but a step up from that. Whatever wealth he inherited Joseph Cliff certainly makes a considerable business empire. The fireclay and brick business he builds is substantial and eventually includes the Micklefield colliery. The ownership of collieries is a piece of vertical integration as to fire clay requires a lot of energy. In the official history of Cliff's firm, it says *"so far as it can be ascertained, the pioneers of the Frodingham Iron Company* (Cliff and his son in law William Edward Hirst) *had no previous connections or interest in Lincolnshire before putting down works there."* (G. B. Walshaw 1950, p 36)

In fact Cliff was a director of the West Riding and Grimsby Railway Company,⁴² which was one of Rowland Winn's promotions. Winn was Chairman of this venture which started in 1862 though neither he nor Cliff were listed by 1869. Winn's involvement in this railway was aimed at ensuring a

⁴² (Leeds Mercury 1866) A shareholders meeting reappoints both Cliff and Winn suggesting they both became directors at the same time.

wider reach for his Nostell coal⁴³ and conveniently linking the West Riding to the ore field and the port beyond. In general terms it would be beneficial to Cliff's mostly south Leeds based businesses. Clearly this is the time when Winn could persuade Cliff to take advantage of the ore field.

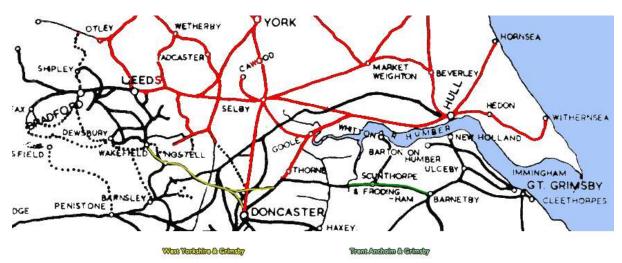


Figure 18 Winn's Railway involvements help to create a corridor from West Yorkshire to the sea. Cliff's works at Wortley, Leeds can connect to Wakefield. Original map can be found here: LNER Encyclopaedia: The North Eastern Railway reproduced with permission.

It must not be forgotten that Winn was not just promoting his interests in Frodingham but he was also promoting his interests in Nostell and thus had business interests that took him into the sphere of other investors and industrialists in Yorkshire and beyond. One might suppose the narrative being projected for this railway venture as being something akin to the "Thames Gateway" prospect, that is to say a new corridor through to a port capable of development (and thus avoiding the entrenched vested interests of Hull)⁴⁴ with plenty of cheap land and resources along the way. There are certain dynamics here, at least for people who are already industrialists of one kind or another. If you were the owner/lessee of coal bearing land you probably had "clay band iron ore" and you certainly had clay. Two of the biggest energy users were smelting iron and making bricks. If you were producing coal, bricks or iron you needed to take them to a market and the best way to do that was by railway, which coincidentally also needs coal for fuel and iron for rails, engines, bridges etc. and bricks for the structures. There is an irresistible synergy here and it is not at all surprising that Cliff, being involved in one of these processes, ends up at Frodingham.

However there is another important factor in this which is that Cliff was both a Unitarian and a *"staunch Liberal"*. So too was Leeds based James Kitson (1835-1911), later 1st Baron Airedale, a locomotive builder and owner of the Monkbridge Iron and Steel Foundry. In 1860 Kitson married Cliff's daughter Emily. It's quite clear that Cliff was in the circle of this iron and steel foundry magnate for some time prior to starting at Frodingham. We also learn that he went to the North East for expertise in ironmaking (Walshaw 1950, p 37) when he set up Frodingham but this may have

⁴³ See (Cross 2015). Without a railway there was a limited local market for coal which was already being supplied by their Wragby colliery. In order to make a new colliery viable a rail link to wider markets was essential.

⁴⁴ Indeed avoiding Hull is a theme running right through to today and reminds us of Adamson's desire to avoid Liverpool by building the Manchester Ship Canal. Conversely improving communications with Hull through a Humber bridge/tunnel was also mooted.

been on the advice of Kitson.⁴⁵ So we see that there are multiple connections spanning religion, politics, extended family, associates in other business ventures, across a wide geographical area developing operations. All of which is indirectly contributing to development in Manley and all of which has randomness to it.

Despite Cliff's lack of previous connection with operations in iron we saw from Erikson (1959) that it was not at all unusual for an iron & steel industrialist to have no background in iron and steel before becoming involved in the business as long as they had business interests of another kind.

Whilst Cliff's eldest son, John, is listed in the censuses as firstly a firebrick maker, a firebrick and chemicals dealer and a retired firebrick merchant (John's son, David, is also listed as a firebrick merchant) and his second son, William, is listed as Ironmaster, colliery proprietor and firebrick maker (his son Joseph T. is listed as earthenware manufacturer), the day to day supervision of the Frodingham Iron Company became the responsibility of his third son, Joseph who moved to Frodingham in 1866 at the age of 25. That Joseph's son, also Joseph, also goes on to be an ironmaster at Frodingham too, indeed the family successfully retains control of the company for several generations, far longer than the norm, which gave all operations in iron & steel in Frodingham a stability. Their contribution was to verify that a successful and competent business could be grown in Frodingham.

Adamson, the self-made man.

The next industrialist to engage with Frodingham was Daniel Adamson (1820-1890). Born into a Quaker family in Shildon, near Darlington he was apprenticed to the Stockton and Darlington Railway, the starting point of many Victorian engineers. He was a draughtsman, then a superintendent engineer, and finally a works manager at the S&D before he left to manage a foundry in Stockport and in 1852 he set up as a boiler manufacturer on his own account near Manchester⁴⁶ where he created innovative boiler designs and patents that brought him much business success with his boilers being exported worldwide. Indeed Adamson is also recorded as supplying "blast engines" for iron and steel plants.

He was the 13th of 15 children of a farmer/innkeeper father who seems to have died when he was young (his mother seems to have continued the inn-keeping). It does not look like a privileged background and so we might reasonably call him a "self-made man". Potentially he is the only self-made company owner on the Frodingham orefield and this may be of significance given his battles with Winn (see below) and it is why I will go into some detail about his background.

Today he is generally remembered for his part in agitating for the building of the Manchester Ship Canal, which was eventually opened some four years after his death. This can also be seen as a "gateway" type of project, effectively opening up Manchester to the sea and thus bypassing the port

⁴⁵ Kitson provides at least some of the locomotives used at the Frodingham plant, according to the official history. The family connection is noted in the official history but its potential for influencing Cliff is not suggested.

⁴⁶ Newton Moor Ironworks, Hyde.

of Liverpool and the railway monopoly thence to Manchester (whilst being a spectacular grand project the ship canal was never the success that it was claimed it would be). We can thus see the possible attraction of an ironworks in Lincolnshire to Adamson. The role of Daniel Adamson in the development of the Frodingham iron field was pivotal in that it presented Winn with an existential threat to his venture, as we shall see. Although Dawes and Beal (Parkgate) were essential in founding operations on the ironfield and Cliff turned out to be the most successful, it is Adamson who came close to undermining confidence in the ironfield as a viable business proposition.

If one considers his boiler making as a mid-stream activity Adamson put those surpluses to work both upstream and downstream. Downstream activity involved a mill building company which may have also run mills. Being based near Manchester in an area where the major industry was the production of textiles in mills powered by, amongst others, Adamson boilers this seems a natural extension of the engineering skills base that he would have had at his disposal.

Upstream activity that he became involved in was in the production of the boiler making concerns major raw material – iron and increasingly steel. In this regard he seems to have been involved in operations in Cumberland, Cleveland, Shropshire, South Lincolnshire/Nottinghamshire as well as North Lincolnshire, to a greater or lesser degree.

So we see that Adamson reinvests surplus in a more or less linear way extending from his boiler making core operation and he does so over a wide geographic area and he also exhibits the same kind of interest in corridors of growth and connectivity that Winn and Cliff were interested in, corridors that shrunk time and space between his, and others, products and their markets.

Adamson's Letterbook: Context.

We are fortunate that we have a letter book of Adamson's which chart his narrative of the ironfield and his fragile relationship with Winn, which came close to endangering the viability of operations and is thus worthy of detailed examination. It covers the period 1866-1880, although the number of letters decreases markedly after 1872 that being the year the North Lincolnshire Iron Works became a limited company and Adamson's involvement decreases. (Adamson, GB124.B.ADM 1851-) In that year Adamson relinquishes sole control and, according to Wells (2013), brought in George Tosh of Kilmarnock and George Ogle of Manchester. Grace's Guide tells us that Tosh was a Scottish engineer and metallurgist who spent the early part of his career as Locomotive Engineer to various railways in the north of England before coming to Scunthorpe to become an ironmaster (George Tosh). As a locomotive engineer he is credited as being the first in Britain to introduce a steel boiler and it seems probable that a shared interest in boilers would be his link to Adamson.

Adamson's initial reaction to the orefield was very positive. He asked someone to find a house for him between Frodingham and Kirton so as "to get a better understanding of this immense iron stone deposit..." ⁴⁸. Mention was made of hiring an engineer from Cleveland district.

⁴⁸ Presumably he is thus aware of Roseby's operations in Kirton, see section on Roseby that follows.

It is important to first consider Winn's attitude to surplus and how he was able to exert control over the field with it before considering Adamson's alternative view. Remembering that Winn had little available cash and had mortgaged assets at the start, he at first leases land for the lessee to selfextract ore, which generated him revenue, quickly he utilized that surplus to tie down the next investors to smelting on the field and promising to help finance the building of a railway but he has to allow them self-extraction of ore. With increasing surpluses he developed his own extraction company so that the next set of smelters must buy ore from him. Finally, as we shall see he is able to push further surpluses into establishing his own smelting operation. You can see that he is able to exert ever greater control but only if confidence in the orefield is maintained. This is a complete change from aristocrats like Fitzwilliam who, as we saw, seemed to muddle along incurring more debt.

There were both good and bad aspects of the ore at Frodingham. The ore was in beds and not only did the iron content vary from bed to bed (depth) but it also varied across the bed. The ore content could be as much as 30%, particularly in the top bed but could also drop to the teens %. It is very high in lime and phosphorous but lacks silica. It also had a high water content. If, as an ironmaster, you understood that then adjustments to your furnace mix could be made accordingly, usually by bringing in some siliceous "Northampton bed" ore⁴⁹ but in the early days of smelting many did not understand it leading to several furnace explosions, including one of Adamson's. (Hull Packet and East Riding Times 1866) But ironmasters and speculators were drawn to Frodingham because the price, particularly if you had your furnace on the orefield, was favourable. Dawes was initially paying 1/s per 21cwt ton⁵⁰ and Wells quotes prices given to Roseby and Lovell of about 3/s. At a similar time the much higher iron content hematite ore (50-55%) of Cumberland and Lancashire was 17/s or more ex mine (Roepke 1956, p 72). Had this ore field been buried under significant amounts of overburden and required initial underground mining (and hence increased costs) then smelting problems may have had a more adverse impact on viability. As it was the ore was at or close to the surface over a significant area making it very cheap to extract and thus providing the impetus to overcome smelting problems.

Although Adamson's lease required him to purchase ore from Winn he nevertheless pursued, at least initially, discussions with Beauchamp and Yarborough concerning the possibility of obtaining ore from them. Beauchamp had very little to offer having been outmaneuvered by Winn in the enclosure of Brumby East Common. It seems that some progress was made with Yarborough (though there are no letters to him, merely discussion of this aspect with others) and Roseby was asked about bringing ore across Winn land to Adamson's works but Roseby seems to have demanded a royalty, a toll and a wayleave, rendering the project unviable.

⁴⁹ The nearest was found at Greetwell near Lincoln but later ore was taken from around Colsterworth in south Lincolnshire.

⁵⁰ 21cwt to allow for 1cwt water content in the ore.

Problems with the ore, revealed in the letterbook

I will now be drawing on extracts from Adamson's letterbook, (GB124.B.ADM 1851-). Please note that not every page was numbered and therefore no page references are given and researchers will have to use the date as a location guide.

From as early as 1866 Adamson wrote to Roseby, Winn's mining engineer and vendor, and Winn (separately) complaining about the material he was being sent by Winn's mining operation. The phrase he used most for what he is complaining about is "rough limestone" and it is clear that he is not complaining about the quality of the ore per se but the fact that they were not sending him ore but the "rough limestone". When he got ore he was happy with it but he believed that Winn's men were not being selective enough and just sending everything as it came. There would seem to be some justification for Adamson's claim.

Letters to Roseby were, right from 1866, of a wholly different character to those to Winn. We should recall here that Roseby and his father worked the Skinningrove deposits before they were acquired by Bolckow & Vaughan and so should know what ironstone is. In January of 1866 Adamson wrote to Roseby in reply to a letter from him which Adamson says is *"uncalled for"* and goes on to say the suggestions made in it are made by someone *"drunk or out of his senses"*. In 1867:

"it is clear to the Co. that they understand iron making a great deal better than Mr. Roseby.....You will recollect you have been asked what you call iron stone but you never though will reply – Exact fact we suspect is not your line". In 1868 the company replied to Roseby thus: "Referring to that portion of your note where you state what you can do to bother and annoy the Co. You are at liberty to do as you like for it will only be another edition like the past annoyances you have studiously subjected the company to."

In 1869: "your statements are so utterly untrue that I will not condescend to reply to them. Whatever you may say of your wonderful self....."

In an August 1869 letter to Winn, Adamson writes: "Do not ask me to arrange with your man Roseby for I could not. His promises are all the same as his promises to pay which are not, as you are aware, carried out." It is not clear why Roseby should be paying Adamson or perhaps this is the general view of him. In a letter to Winn of February 1871 Adamson writes "…no gain, nor amount of profit or positions or power should influence me to subject my capital or personal respect under even the indirect control of John Roseby."

The tone of the letters to Winn is on the whole more nuanced. He tried to make the point that there is profit to be made for both of them if the mining operations were carried out with more care and attention. Adamson stuck to the terms of the contract and tried to persuade Winn that the method of working the stone was wrong and that as a result he was being delivered limestone causing his productivity to fall and costs to rise. Typical is this from March 1867:

"I do not understand the purpose of your threat. If you deliver me ironstone regularly and in accordance with the contract I desire no more and under which

conditions I am and have been prepared to carry out my part of the contract in every particular."

The letters did get gradually stronger in tone and by 1868 he was asking for an amicable settlement for losses he puts at £30,000 (some £3.2 million today) or there must be arbitration. In August of 1869 he was seeking an on-site meeting with Winn:

"I regret much the delay you say will arise err you get over to meet me at the works. I must really press for you to meet me as soon as possible as I am losing money at a fearful rate and when I tell you the N.L. Works has lost odd of £11,350 (£1.225million today) up to June 30th this year I think you will agree with me that no time should be lost or delayed on putting things on a better footing. And while I am at the mercy or whim of some ignorant unprincipled men in your employ I must expect no better."

In September Adamson ramped up the pressure further by firstly by writing that he would stop paying for the deliveries and secondly he says this:

"I can see you at the works or I will drive & get over to Appleby – as your interest critically is suffering and a blow will be given to the field, it will not recover for years, but which now even you have in your power to avert."

I take this to mean that if the North Lincolnshire Iron Works goes under and the reason given is the quality of the ore then it will severely damage the narrative Winn is trying to project of a successful orefield. This seems to have prompted Winn to find the time for a proposed meeting. In replying to the proposal Adamson says: "As this is a friendly meeting to look into matters that so seriously affect both our interests - I have no objections for you to have a friendly councilor if your Bro (brother Edmund?) was present would it assist to come to the best conclusions."

A further exchange was had before the meeting and a post meeting letter from Winn was quickly followed up by this response from Adamson:

"I am obliged to correct the latter portion of your letter. In working the ironstone – sorting(?) the ironstone from the bed down to the thick rough or large shelly limestone we agree and it is in accordance with the conclusion arrived at on Friday last and mutually agreed to but the stuff from the large shelly limestone or the so called ironstone below it I repeatedly told you I could not admit it until it was proved to me to be ironstone and if it was workable stone to be delivered for calcining(?) or working in such a way & proportions as we might agree upon that a furnace could work it. I think I gave you proof of my wish to be reasonable to pay for filling up the stone beyond the contract price & this I did for the sake of peace & to show you how your irregular and willful method of delivery have stone and limestone mixed has operated against my interest & caused me a most serious economic loss." (My underlining)

Here it would seem that Adamson is prepared to pay more for what he considers to be properly sorted ore.

Letters continued in this way with Adamson writing to Winn in June of 1870: "and had I suspected you would have acted so I would not have spent one shilling in the ground." Payments for ore are again suspended and this time Winn appears to have resorted to solicitors' letters. Adamson responded to one of Buck & Dickson's letters saying "I know this much that Mr. Winn <u>himself</u> gave orders on the ground before the <u>workforce</u> and others not to carry out the arrangement come to with me" (Adamson's underlining).

It is not indeed till 1875 that Adamson finally pushed Winn into arbitration where he was successful though Winn took the arbitration to court in 1876 where he was able to claw back some of the award. The court ruled that compensation was due only from the date Adamson turned the North Lincolnshire Iron Company into a limited company in 1872.

What did Adamson expect and why did he stay?

What came out in a letter of February 1872 is that Adamson had a letter from Winn stating that "*the main bed of ironstone to be used yielded almost 33% of metallic iron*". It now becomes quite clear, given that assurance, why Adamson would enter into a contract for ore supply which tied him to Winn.

But perhaps the question raised is why did Adamson continue to support the enterprise for so long? He also stated, in 1870, that the extra time he has had to spend in Lincolnshire has cost him £1,000 (£108,000 today) in opportunity costs in addition to the operational losses. The answer is that when a "reasonable" delivery of ironstone was made, and there were times when that happened, he could make money and he suggests that both the method of working and pig iron prices were improving over this time.

When looking for capital in 1869 he wrote "2 furnaces pay 20% per annum, 4 fully 30%" and also, when writing of expansion, of costs "2 furnaces cost 39/ton 3 furnaces to 38/, 4 to 36/ or 37/". In June 1869 "We made more iron last month than has ever been made in a month before in Lincolnshire....1,080 ½ tons". Also he stated that he was "first making 3 to £400 in a month & then throwing it away in the next 2 or 3 months..."

The NLIW banked with the Beckett & Co. branch in Doncaster. Whilst we only have Adamson's letters to them it seems reasonably clear that they were putting him under some considerable pressure to keep the account to a level that Becketts were comfortable with (never directly stated). He wrote regularly to the bank with updates. It is clear that the bank pressed him to sell some shares in Charles Cammell & Co. This was the company that bought the Yorkshire Steel Works at Penistone, built by Adamson in 1863/4 and sold to Cammell later in 1864. So it's likely that the purchase from Adamson was at least part funded by shares and in 1870 he pointed out to Beckett & Co. that the shares they asked him to sell would by then have been worth £960 (£109,500 today) more than he sold them at as well as paying 5% interest. In one reply of 1869 he wrote "... gross payments for the month amount to £2172.9s 9d this includes £100 for sundries and little things that turn up." (£234,576 and £10,800 today) whilst sales were £3,055.18s and thus he can reduce the balance by

£883 (£329,940 & £95,364 today). Whilst this is only one month and no depreciation or charges are included this looks a good return and hence his desire to try to make the NLIW work.

Interestingly there was no prior communication with the bank about the prospect of making Tosh the managing partner, discussed with Tosh from late 1869 (*"However do not go into this with a faint heart or you will not win."*) nor the decision to move the company to limited status in 1872. Indeed neither was there any prior discussion with Winn about this even though a new contract would be required. We get some idea of the scale of the account with Beckett & Co in a letter from 1870 when the account is said to *"stand with you at £3737.5s.4d."* (£426,000 today) and this is after a number of reductions.

Throughout his letters to the bank his narrative of the ironfield was always optimistic and he puts any blame squarely with Winn and Roseby for the bad working of the mineral.

Further pressure comes to the enterprise and the bank account with the failure of the Trench Iron Co., of Wellington in Staffordshire, in February of 1869 owing NLIW £1,200 (£1,368,000 today). Adamson was robust in asking for, almost demanding, the bank help in accommodating this loss.

Adamson publically questions the orefield.

At an 1876 meeting of the Iron and Steel Institute in Leeds, a paper by George Dove jnr. of the recently formed Winn and family smelting operation (the Redbourn Hill Iron and Coal Co. 1872) gives a favorable assessment of the Frodingham iron field. In comments following the reading, Adamson is quoted as saying that he had "*paid for his experience*" in coming to terms with the ore but that were it not for the "*random and reckless mode used* (in the quarrying), *hardly any iron, even the Cleveland, would compare in the working with the North Lincolnshire*." In reply Mr. Lowther Bell M.P. (and soon to be the arbitrator in the above mentioned dispute with Winn) said that there was a cheap chemical test that could be done to determine the fusibility of the ore. Adamson replied that he knew of it. Why then didn't he use it was the response. Adamson replies "*that they had to receive the stone as taken to them by the lessor and it was worked with utter disregard to selection or any scientific system, or even commercial honesty.*

"The earth is the Lord's and the fullness thereof", except in Frodingham, which is Mr. Rowland Winn's". (Hull Packet and East Riding Times 1876)⁵¹

Raising this issue in a prominent and widely reported meeting was potentially very damaging to the narrative of Winn's orefield but by 1876 operations on the orefield were so established as to verify it in the eyes of investors.

⁵¹Reported elsewhere too. What Adamson is saying is that if the ore was more carefully selected from the face it could be amongst the best in Britain.

Other Adamson enterprises and reflections.

Whilst the letters are primarily concerned with the NLIW there is mention of other enterprises and potential enterprises in iron and elsewhere. The most interesting of which is the exploration of ironstone deposits near Grantham on the Duke of Devonshire's estate. Quantities of stone are quarried and presumably smelted, possibly in or near Nottingham. This is mentioned in a letter to Winn, presumably as a threat. Adamson also has interests in iron making in Barrow and this too is mentioned as a p.s. in a letter to Winn where he wrote that he was going to arbitrate a dispute between two iron companies in the North West, again we can take this as a shot across Winn's bow in that he knows how to arbitrate and is respected enough to be asked.

However he seemed satisfied with the performance of the NLIW by 1880, when he wrote in a letter to the Duke of Devonshire that "Lincolnshire works is now working at a profit of just about 20% per annum and in which I have £20,000." (£2.38 million today) it is perhaps an 1872 letter to Edward Ross, Secretary to the MSLR railway, looking back at events where we get the best idea of his preferred narrative on how the development of the ore field should have proceeded: "My object then was to get the Lincolnshire iron bed opened up by 2 or 3 different people." (Referring in part to his approach to Yarborough) but that it failed because Winn owned the railway and wanted 6d/ton, which was unreasonable. He stated that there was a need to break up the monopoly and that "the same evil arose in Cleveland". He believed that more mines should be opened up and the stone mixed and he thought that there was a "lens of siliceous stone" under Yarborough land to mix "with calcareous stone now being used with so much difficulty." He concludes that there is a need for a new line from the east of Frodingham down to near Gainsborough "to open the Lincolnshire iron field and enable that district to develop and hold its own against any other in the country."

Mentioned on a couple of occasions is the failure of Winn and (more likely) Roseby to keep NLIW affairs confidential. It is most likely that this was why Cliff, of the Frodingham Iron Co. wrote to Adamson in 1869 offering to buy the NLIW (probably having been told by Roseby that it was in difficulty). *"I should not object to sell the NLI Works as far as I am concerned but I have no notion of giving them away."* was Adamson's response. In summary, then, Adamson has great faith in the ironfield but his major problem is with Winn and mostly with Roseby. Whilst we are only seeing his side of the story and allowing for some license, it seems as though he is the victim of a shoddy and inexperienced mining operation that is not adequately supervised by Roseby. Winn does not come out of this in a particularly good light either. Understandably he wants to sell as much stone as he possibly can and as Roseby is probably on a commission then he would sell absolutely anything. Having said that Winn has a delicate balancing act to perform here as if the NLIW had failed then investment in the field would have slumped. From Adamson's point of view Winn is a rentier landlord holding back enterprise although Winn is actually more than just a rentier.

Adamson has nothing to say about an urban area, workers housing or anything of that sort. Indeed his narrative of numerous scattered ironstone mines, from which he could pick and choose at will, would have have dispersed population over a wide area and due to his picking and choosing made such small settlements vulnerable to the whims of geology. We see here again that these competing narratives are directly concerned with operations but are indirectly creating the need for some sort of urbanization.

Adamson's partner Ogle.

Richard Ogle (1825-1899), a shareholder in the new limited company Adamson set up, was, according to his 1899 will, a director of the Central Aspen Silver Mining Company Ltd., P.R. Jackson and Co. Ltd. (a steel and iron founders) and also Chairman of the North Lincolnshire Iron Co. Ltd. He left £16,364 in his will (about £1.8 million today). This also brings up the point that for investors there were plenty of places in which to invest other than in the UK. For example Rowland Winn invested in the Powder River Company, a cattle enterprise, and his son Algernon had the nearby Big Horn Cattle Company both located in the then "Wild West" of the USA. (Woods 2003, p 46,84-5,173,195) From 1873 Adamson was involved in the Etowah Iron Works near Rome, Georgia in the United States. This appears to be a restructuring of a failed plant but reports suggest this failed again after a few years due mainly to currency fluctuations. Ogle's obituary had him as an iron trader of "upwards of 40 years", and was "highly respected" on the Manchester Royal Exchange and a pioneer of the introduction of the hematite ore iron to Lancashire and "representative" of the Barrow Hematite Company. He was "also largely invested in the Lincolnshire blast furnaces: since 1865 he had represented the North Lincolnshire Iron Company, and for several years up to and at the time of his death, occupied the post of chairman of the board of directors." It also says he was "associated with other important iron companies in various parts of the country." (Manchester Courier and Lancashire General Advertiser 1899)⁵³ Ogle's occupation is listed as iron merchant on his weeding certificate and his father is listed as "gentleman", which would seem to suggest that Richard Ogle came from a background of reasonable wealth if not industry.

Wells lists a number of other individuals and groups who express an interest in the area but whose involvement came to nothing (Timeline 2013). They include the giant Bolckow & Vaughan concern from Middlesbrough (mentioned above in connection with Roseby's father), who try, but fail, to dictate terms. Perhaps they see the opportunity to make another Middlesbrough.

Throughout this early period there are a number of "promoters" and agents associated with the area. Indeed Dawes is actively promoting the further sales of ore and there is evidence, some of which is mentioned above, that Cliff and Adamson are prepared to play their part in promoting the area, its railways and ports.

Advancements in legal "technology".

The incorporation of the North Lincolnshire Iron Company into a limited company reminds us that the systems facilitating the production of a surplus were changing too. The industrialisation of Britain brought with it the opportunity for investment or speculation on a scale not seen before and with that came increasing pressure to refine and, indeed, create legal and financial frameworks to promote the production of surplus and expand it by increasing the numbers of people involved (thus increasing the availability of capital). The debate about the concept and "moral" effects of the possible introduction of the limited liability company was lively (Johnson 2010, pp 137-166) but its

⁵³ Note Ogle is connected to two different kinds of ore here giving him the ability to trade to both markets.

introduction in 1856 did not lead to the moral turpitude its opponents suggested and its uptake was relatively slow. Once again we see the time lag between availability of technology (we can consider limited liability as a technology) and their widespread uptake as with mechanical blowing and the use of coke. Of course not all "promoters" had the interests of their investors at heart. Johnson (2010, pp 208-210) details the seamier side of "promotion" with the story of Harry H. Marks M.P. who created a spectacular fraud, for which he was never brought to book (indeed he was reelected). The details of his narrative are not important to us here but I mention the case to suggest we consider levels of trust and how those have evolved from verbally based "local" agreements trough to investments with actors and entities which due to the shrinkage of time and space are required to become ever more grounded in texts. In the case of Marks there was actually nothing there at all in terms of an enterprise but in the case of Samuel Peto is more complex. This high profile Victorian is described on the base of his bust at Norwich Thorpe station as a "Baptist, Philanthropist and Entrepreneur" however he has also been labelled as "a liar, a cheat and a fraud". (Vaughan 2009) In his case there were, literally, concrete achievements in railways but in the end great loss to many investors. This reminds us of the difficult relationship between narrative and "truth". It also reminds us that operations are constantly reorganising and redefining law, relationships, and how trust is defined. Operations are not following movements in the populations thinking they are leading them.

John Roseby, and "discovery" narratives

John Roseby (1824-1882), mentioned above in relation to Adamson, was Winn's mining engineer and vendor. He came from Northumberland and his father (also John) was a mining engineer who worked with Bolcklow & Vaughan, as I have mentioned. Indeed Wells says and I can confirm that some newspaper reports credit Roseby senior with pointing out the extent of the Cleveland ironstone field to John Vaughan.⁵⁵

Before we go any further with Roseby it's necessary for me to write a bit more about "discovery" narratives as this is relevant to Roseby. The word "discovery" is often used in connection with Winn and the ironstone at Frodingham but it is something of a misnomer. The ironstone had been worked in Roman times and it was still being used as a building stone in Winn's time. What was not known was the extent & the quality of the ore and the means by which it could be exploited commercially. There is a story that the ironstone was discovered by Winn whilst on a shooting party⁵⁶.

⁵⁵ A piece in the (Glasgow Herald 1869) makes the point that a "*recent claim*" has been made for a "*working man*" called John Roseby (senior) pointing out a stone for Vaughan to kick. However the 1881 article makes it clear that "Messrs Roseby" were supplying costal ore at Skinningrove (south of Redcar) to Bolkow Vaughan in 1848 and were "*not long in tracing the main bed of ironstone further inland*". Thus Roseby senior is involved in the exploitation of that field but the significance of his involvement is possibly overstated.

⁵⁶ For example this story is retold by Walshaw (G. Walshaw 1936) in an illustrated "history" book written to celebrate the achievement of borough status in 1936 and made available to local schools. Walshaw was Appleby-Frodingham Works Engineer from 1917, a local Conservative councillor, mayor in 1938-9, JP and sometime historian. A version of the story also appears in Winn's obituary in the (Hull Daily Mail 1893) but this time it is a guest who trips over and recognises the ironstone. A more correct version concerning marling pits appears in (G. B. Walshaw 1950, p 6) but Winn is not mentioned.



Figure 19 "Accidentally discovered ironstone" from "This Town of Ours", illustration by H.D. Smith, 1936. Copyright North Lincolnshire Council, used with permission.

This projects a derogatory image of Winn as a sort of "upper-class twit" who literally stumbles across the ironstone and, in one version, has to be told what it is that he has stumbled across. However, as we saw in chapter three, the facts appear to be somewhat different. Roland Winn wrote that he noticed the ironstone, in 1854, at the base of a marling pit (Wells 2006). He then had the ironstone analysed but it was of disappointing quality. Four years later during similar operations in a different area he again had the ironstone analysed, this time yielding better results. He then hired mining engineer John Roseby to both assess the extent of the deposit and to "vend" or sell the ore. The ore was found to be in three beds of varying quality, very extensive and capable of open cast and underground mining.

We know that Winn has an awareness of minerals as coal was being mined at Nostell. We know, from another letter quoted by Wells, that Winn was aware of developments in Middlesbrough, which included coal export staithes and supporting urban area starting in 1829, new dock from 1894 and ironstone "discovered" in the Cleveland hills hinterland from 1850. As a person in touch with a large Yorkshire estate we can assume that Rowland was aware of the Earls Fitzwilliam's coal and iron operation. Rowland's sister, Katherine Matilda, married William Asserton Cross in 1846 and William's brother Canon John Cross became vicar of Appleby in 1849. His hobby was geology and he went on to study and publish a paper on the exposed beds at Frodingham. So it is more than likely that Cross alerted or encouraged Winn. Ironstone from Northamptonshire, which is similar to Frodingham ore but of a slightly different chemical composition and was exhibited at the Great Exhibition in 1851 but not exploited fully until a few years after that. All this, I suggest, makes it very likely that Winn is no passive actor in this "discovery". However the "accidental" narrative is frequently repeated. As far as I am aware Winn never responded to or countered any of these narratives but then again he had no reason to do so. I suggest that these narratives are designed to play down Winn's role and that they are meant to develop a stereotypical view of landed gentry as feckless, reactive individuals who don't know what they are doing. The 1936 cartoon reproduced above must have been known to be false at the time of publication as the writer was Works Engineer for the Appleby-Frodinghm Company so one must assume that there is a motive for seriously downgrading Winn's involvement even though the writer was also a Conservative councillor at this time.

Rowland Winn's younger brother, Edmund, was given the job of overseeing the coal mining at Nostell and it is said by Roseby, that Edmund introduced him to Rowland and Roseby discussed the possibility of ironstone with him. Thus Roseby claims to have "discovered" the Frodingham ironfield. But then he also claimed that he and his father "discovered" the Cleveland ironfield. Certainly, as we saw in Chapter three, he and his father were exploiting the Cleveland field at Skinningrove, where the ironstone is exposed in the sea cliffs. But they were "forced" to relinquish that operation to Bolckow due, one assumes from reading between the lines, to lack of capital. According to Wells (People - Roland Winn 2013) Roseby was sent for in March 1859 (arrives April), but suggests that Roseby said he had known of the ore since the mid 1850's due to his involvement at Kirton (People -John Roseby 2013). This would give some credence to the newspaper report in which Roseby is said to have known about the beds in Frodingham for many years, however Wells gives the date of the partnership agreement with Okey (a County Durham coal and mine owner) to exploit the beds at Kirton as 1859, the same year as his involvement with Winn. (Wells 2006) ⁵⁷. Thus you could look at the Roseby Kirton venture as a coincidence or you could look at it as a cynical move to undermine Winn. It is not important to Winn to be known as the man who discovered the ironstone, nobody is going to ask him to discover some for them, but for Roseby the narrative of being the "discoverer" of something that brings wealth is crucial for his future as a reputable mining engineer.

William John Roseby.

John Roseby's son, William John Roseby (1848-1916) entered the business along with his partner John Hodgson Lovel (1845-1878). Wells says John Lovel's father was an iron and timber merchant from near Malton in Yorkshire with connections to Sunderland (Wells, People John Hodgeson Lovel & William John Roseby 2013) but the census returns just describe him as a timber merchant. So again with these two, we have a father in business and a father/grandfather involved in ironstone extraction.

Roseby and Lovel set up a company to vend ironstone in 1869, based in Doncaster, and they asked Winn for an account. According to Wells' figures they were quite successful but Wells suggests that Dawes was not that pleased at the low price the ore was being sold for. The pair sold stone into the North East, Yorkshire and Staffordshire.

1875 found Roseby and Lovel setting up the Union Railway Carriage and Wagon Company, with others mainly from Lancashire. This enterprise (actually the repackaging of a previous business) was widely advertised in a bid to gain subscribers (Sheffield Daily Telegraph 1875). This was to provide

⁵⁷ See also: (Sheffield Daily Telegraph 1864) where there is a report of an organised promotional visit to the Trent Ironworks by businessmen, bankers etc., including the mayor of Sheffield, followed by a visit to Grimsby Docks and an "elegant repast" at the Yarborough Hotel. Winn is absent but Dawes, Cliff and Roseby are present and Roseby speaks and makes two claims. Firstly that he and his father were the first to mine the Cleveland ore but were forced by "want of means" (lack of finance, I assume) to "transfer their interest" to Bolckow & Vaughan in 1848. This would seem to be corroborated in an article in the Northern Echo (The Founders of the Town - Middlesbrough Memoirs 1881). Secondly he claims that in 1859 he first met Winn's brother (presumably Edmund) and a few months later Winn wrote to him asking him to investigate. George Dawes states that it was through Roseby that he was introduced to Winn and that it was due to Roseby that the whole thing had been developed.

them with the rolling stock to deliver the ore but it was liquidated in 1879 (Wigan Observer and District Advertiser 1879).

In 1878 the City of Lincoln proposed building a sewage plant at Greetwell (near Lincoln) on land primarily owned by the Glebe and leased to the Roseby and Lovel under the style of the Mid Lincolnshire Iron Company (Lincolnshire Chronicle 1878). At the inquiry William Roseby stated his intention to build furnaces there, which never happened but the pair are obviously exploiting the Northampton Bed stone which when mixed with the Frodingham ore made smelting easier.

Lovel committed suicide at the end of 1878 but had been granted temporary patent on "improvements in electro-magnetic engines" the previous year (Northern Evening Mail 1878).

In 1881 Roseby, then partner-less and with a lease on the Tinsley Blast Furnaces and other business interests, found himself being sued for divorce by his wife on the grounds of infidelity, (Derby Daily Telegraph 1883). Financial irregularities, debts and bankruptcy follow and we need not trouble ourselves with that (Sheffield Daily Telegraph 1881). ⁵⁸

We can see, then, that Roseby Snr., Roseby Jnr., and Lovel have interests, however tenuous, across a wide area. We will learn more about their reach below. But they have no assets as such, no land and they only sporadically have money. They survive only on their own narrative and the veracity of much of that would seem to be questionable.

However there are two company promotions which Roseby and Lovel were involved in promoting that we should consider. Whilst these two promotions do not add much in the way of technical change or growth they do show the complex arrangements of actors over considerable space. We will see the connections between various orefields and coalfields across both England and Scotland further showing that investment in Frodingham was only one node in a very large network. These were the Appleby Iron Company and the Lincolnshire Iron Smelting Company, both of 1872.

Appleby Iron Company

Grace's Guide Says of the Appleby Iron co. "one of William Lovell's promotions" (Appleby Iron Company n.d.) but this seems to be a slight mistake and it was Roseby and Lovel who were promoting it. The Guide also says it was a group of Scottish businessmen led by "Blair and Gilmour of Kilmarnock".⁵⁹ An advert promoting shares in the company, gives the major shareholders as below (Manchester Courier and Lancashire General Advertiser 1874)

⁵⁸ The article contains details of the creditors meeting. His bankruptcy is for £24,581, about £2.5 million today. We note that a partner in the MLIC is called Mr. Gilmore and is almost certainly one of the Gilmores in the Appleby Iron Company.

⁵⁹ The Blair that Grace's guide mentions is likely to be associated with Blair, Blair &Co. who owned the Harrington Iron Co. which included nearby collieries (see (Northern Echo 1870)). Harrington is about 8 miles south of Maryport where Gilmour operates. I also note from Gilmour's will mention of a Charles Blair, son-in-law. However, as we see, no Blair is listed in the advert. Gilmour dies in 1906 leaving £20,491, about £2.3 million today.

Name	Address	Shares	Possible occupation (from 1871 census)
Allen Gilmour	Kilmarnock	450	Coalmaster (possibly 4 pits)
T. Wood	Portlandville, Troon	450	Possibly a Coalmaster (an Adam Wood of the same house who dies in 1917 is so described)
G. Anderson	Tremolesworth, Kilmarnock	900	Gavin – a Coalmaster ?
T. Gilmour	Elinbank, Kilmarnock	450	Thomas – a Grocer & Spirit Dealer?
J. Gilmour	Crokedholme, Ayre	300	John – Coalmaster?

Figure 20 Appleby Iron Company shareholders and possible references with 1871 census.

It seems likely that all three Gilmours were related and it's possible that Gavin Anderson worked for John Anderson & Co. Later, in 1893, there is mention of Gilmour, Anderson & Co. of Kilmarnock – Coal and Fireclay. Allan Gilmour seems to have had the Portland Colliery, the Duke of Portland being the major landowner in the Kilmarnock area. In 1884 Allan Gilmour was in court regarding a loan he had taken out to invest in the Maryport Iron Company, Cumbria, ⁶⁰ in which he and three others were said to be partners. The loan was from Boyd Gilmour & Co, colliers, and mention was made of John Gilmour & Co., fireclay works, Kilmarnock. The other partners in the Maryport Iron Company (which included collieries, ironstone and limestone quarries) were J. Gilmour, Wood and Anderson. We learn this from the bankruptcy proceeding of the four as a result of the Maryport Iron Company being liquidated in December of 1882 (although the company seems to have staggered on till 1891, when it becomes bankrupt again).^{61 62 63} Note the investment synergy here between coal, fireclay, and iron, somewhat similar to Cliff, and the involvement in Cumbria and Lincolnshire as with Adamson.

Investors in Roseby and Lovel's Mid Lincolnshire Iron Co., mentioned above, were listed when it converted to limited status in 1885 and they were: Jane Lovel, Malton Yorkshire; R. Goudie, Ayr, Solicitor; G. Robb, Glasgow; H. Leck, Hollybush, Ayr, Landowner; John Wood, Troon, Scotland, Ironmaster; W. Macrorie, Ayr, Solicitor; J. Cunningham, Mayboll, Scotland; Mrs. J. Anderson, Kilmarnock, Scotland. (Boston Guardian 22nd August 1885 1885), which suggest further strong Scottish connections.

⁶⁰ The Maryport Iron Co. first appears in newspaper reports in 1870 and worked up to having 6 furnaces in blast. Shortly before it is liquidated it only has one furnace out of blast so would seem to be doing relatively well.

⁶¹ Briefly loans had been taken out by individuals and invested in the company and there is a dispute as to whether the company or the individuals are responsible. The individuals are made bankrupt but contest it. ⁶² Second failure reported in (Carlisle Patriot 1891).

⁶³ Wells has a slightly different list of shareholders: Along with John Hodgson Lovel and William John Roseby (both gave their address as Doncaster) were James and John Wood of Troon Ayrshire: John, Joseph and Joshua Gilmour of Kilmarnock, all described as 'Ironmasters' and holding 450 shares apiece. The two largest shareholders were Allan Gilmour and Gavin Anderson, also of Kilmarnock both again described as 'Ironmasters' with 900 shares each.

In the first few years of the Maryport Iron Co. Allan Gilmour managed to produce reasonable surpluses (Ardrossan & Saltcoates Herald 1883) which may have influenced their investment in Appleby. Maryport was exploiting haematite ore, so the investment in Appleby would not impact on their existing customers and would represent a chance to expand into a different sector within iron production.

You can see an overlap in personnel and in location for investors in Maryport, Mid Lincolnshire and Appleby companies, which would seem to suggest reasonable surpluses coming out of Ayrshire in the 1870/8-0's and heading into England.

Roseby became managing director of the Appleby Iron Company in 1875. In 1881 he lost both his place on the board and his position as managing director due to "financial irregularities" in the supply of Winn ore to the firm (Wells, People John Hodgeson Lovel & William John Roseby 2013).

The construction and operation of the plant seems to have been supervised by a Mr. William Moore, previously of Alfred Hickman Ltd., Staffordshire. So although the company was owned by Scottish investors and was known locally as "the Scotch Company" it seems to have been constructed and operated by others.

Like Adamson, the Appleby Iron Company also began to feel it was being short changed by Winn (now the 2nd Lord St. Oswald) on the quality of the ore (G. B. Walshaw 1950, p 102) and the matter went to arbitration and court in 1907/8. The company was more severely hit by a coal strike than the others on the field and Winn made it known that their lease will not be renewed which stifled investment, Winn had the railway connection removed due to non-payment and in 1912 the company was liquidated. The lease was offered to the Frodingham Iron & Steel Company on more favourable terms and they took it up in partnership with the Steel Company of Scotland (Sheffield Independent 1914). As far as I can see there is no connection between the previous Scottish owners and the Steel Company of Scotland, it having been founded by Sir Charles Tennant in 1874 to attempt to produce iron from pyrites, a by-product of another of his ventures (Steel Company of Scotland n.d.).

Clearly Roseby had strong connections in Scotland and they, in turn, had strong connections in Cumbria. But the final promotion looks back to the West Midlands.

Lincolnshire Iron Smelting Co.

The other Roseby & Lovel promotion was the Lincolnshire Iron Smelting Co. The advertised prospectus (Yorkshire Post and Leeds Intelligencer 1872) shows the following directors:

Name	Address	Occupation
H.O. Firmstone	Woolaston Hall, Stourbridge	Ironmaster, Crookhay Ironworks, West Bromwich
Edward Dixon	Wolverhampton	Deputy Chairman, Wolverhampton & Walsall

		Railway Co.
Henry Smith	Dudley	Brierley Hill Iron Works
F.C. Perry	Wolverhampton	Wolverhampton & Walsall Railway Co.
William Crossley	Askam in Furness, Lancashire	Furness Iron & Steel Co.
C.R. Farmer	Gainsborough	Farmer & Son, Trent Foundry, Gainsborough.

Figure 21 Directors of the Lincolnshire Iron Smelting Co.

John Roseby was chief acting director in 1878, according to a newspaper report of the commencing of production on a new furnace (Yorkshire Post & Leeds Intelligencer 1878) but, according to Wells (Timeline 2013), in September 1876 S.J. Claye (1818-1887) wrote to Winn telling him he was now the new chairman of the company and that a Mr. Perry, the previous chair, Mr. Farmer, and John Roseby & William Lovel had all resigned from the board.

In 1879 it was reported to the shareholders that the new furnace, put in blast in 1878, had not performed due to its bad design and two directors responsible had resigned (Sheffield Daily Telegraph 1879). They were replaced by Rev. H.D. Moore of Misterton near Gainsborough and W. O'Neil M.D. of Lincoln. It surely spoke volumes for the state of the company that it felt the need to appoint a vicar and a doctor to the board. It also stated that Claye had to personally put money into the company to help it survive.

At the end of 1881 there was an acrimonious shareholders meeting (Lincolnshire Chronicle 1881) at which Claye was questioned by Cliff (of the Frodingham Iron Works) on matters in the accounts. Cliff had bought a nominal number of shares for the purpose of attending the meeting to ask questions so clearly he had his suspicions. Claye went bankrupt in 1882 with debts of £200,000 (about £20 million today). Despite his bankruptcy and subsequent death his sons managed to salvage at least his Derby rolling stock business. When Claye died in 1887 aged 68 he still managed to have an estate valued at £64,438 (about £7.1 million today) (Ancestry.co.uk). At his creditors meeting in 1882 Claye, of Derby, Long Eaton (Manor House Works, manufacturer of railway carriages, wagons, axels, wheels etc.) and Barrow in Furness (Barrow Wagon Works), was described as a "coke and limestone merchant and railway rolling stock manufacturer" (Birmingham Daily Post 1882). He also seems to have been a director of a shipbuilding concern in Hull (Yorkshire Post and Leeds Intelligencer 1884).

The LIS Company was liquidated and the Redbourn Hill Iron Company purchased the liquidated assets of the company in 1883 by which time production had been stopped nearly two years (Hull Packet 1883).

So this time we have another group from the West Midlands, as we had with the Dawes brothers and we note a further common connection in rolling stock manufacture, which you will recall Roseby and Lovel became involved in.

⁶⁴ Earl's Shipbuilding & Engineering Company. According to Grace's Guide "the largest yard building the biggest ships on the Humber in Hull". https://www.gracesguide.co.uk/Earle%27s_Shipbuilding_and_Engineering_Co

The Redbourn Hill Iron & Coal Company, Winn becomes an Ironmaster.

The Redbourn Hill Iron & Coal Company was, according to Grace's Guide citing Aberconway, formed by a group of Birmingham investors in 1872 (Redbourn Hill Iron & Coal Company). In fact this is wrong and they are confusing it with Claye's company. Wells has this list of subscribers (Timeline 2013):

Name	Address	Occupation
Edmund John Winn, brother to	Nostell Priory	Treasurer of the West Riding
Roland Winn		County Council, York
William Asheton Cross	Preston	Army
William Thrush Jefferson	Northallerton	Solicitor
William Ingliss	Scarborough	Army
George Grant Sanderson	Sheffield	Ironmaster
Alfred Davy	Sheffield	Engineer
Roland Winn	Appleby	MP

Figure 22 List of subscribers to Redbourn Hill Iron and Coal Co., after Wells (2013).

Alfred Davy (1836-1911?) was described in an advert as a:

"Practical and consulting engineer (25 years connected with the firm of Davy Brothers, Sheffield). Manufacturers of Alfred Davy's improved "special" steam hammers.... Also all kinds of rolling mill machinery, special and ordinary for steel and iron works." (Alfred Davy)

In the 1871 census an Alfred Davy was listed as an "Engine manufacturer employing 300 men and 75 boys". His father was David Davy, senior partner in Davey Brothers and thus Alfred also comes from a father in engineering. Alfred Davy, who seems to have left Davy Brothers in the early 1870's to set up on his own account, was also a director of the Phoenix Bessemer Steel Company, Rotherham, retiring as a director in 1873 due to "engagements", having been a founding director (Sheffield Daily Telegraph 1873). This coincides with the development of Redbourn and one might conclude that the "engagements" that did not permit him to stand again were to do with that. These works (Phoenix) were eventually sold, due to the failure of the company, to Henry Steel in 1875 (Edinburgh Evening News 1875) who was a founder member of United Steel which will also eventually encompass Appleby-Frodingham. Davy was also an investor in the Albion Wire Mills, in which he lost money as the company went into voluntary liquidation in 1876 (Sheffield Daily Telegraph 1874). In 1884 Davy invented a modification to the Bessemer process plant (Sheffield Independent 1884). In a letter printed in 1893 he said he was "well known as having had practically the engineering of many of the most important South Yorkshire pits..." (Sheffield Independent 1893) Possibly he knew Edmund Winn through a coal mining connection.

George Grant Sanderson (1813-1879) was born in Edinburgh and died in Thorne, South Yorkshire⁶⁵ and his father seems to have been a brass founder in Birmingham. He spent a good part of his career at the Park Gate Iron & Steel Company near Rotherham where in 1857 he was involved in the production of the first armour plate steel produced (for the ship the Great Eastern). He seems to have been there since at least 1851, moving to take charge at the Tudhoe Iron & Steel Company near Durham about 1867 (Sheffield Independent 1867). By 1872 he appears to have been an independent consultant in Sheffield where he seems to have written reports used for the flotation of the Lincolnshire Iron Smelting Company . Clearly he was the technical brains behind the new company and his connection with Winn may have come from his time at Park Gate as they were quarrying ironstone under a Winn lease at Frodingham. This is also a probable reason why he was hired, presumably by Roseby, to write the report for the Lincolnshire Iron Smelting Co.

William Ingliss (1830-1900), actually Colonel Inglis, was Roland Winn's brother-in law. He was married to Louisa Dumaresq, sister to Roland's wife, which means he was also related by marriage to the Sheffields. It would appear that he purchased a captaincy in the 5th Dragoon Guards in 1854 and spent time in the Crimea during the Crimean war. In retirement from the army in 1859 he would appear to have served in some honorary capacity with the volunteer costal artillery unit 1st East Riding Yorkshire Corps (Volunteer Service Gazette and Military Dispatch 1882) and been based in Scarborough. He moved from brevet Major to Lieutenant Colonel by the time of his obituary which also states that he was a long serving magistrate based in Scarborough and was an Inspector of Industrial Schools (Yorkshire Post and Leeds Intelligencer 1900). As for his business affairs we know he was a director of British American Land, a company speculating in land in Canada (Morning Post 1900). He may also have been the "Lieutenant-Colonel Inge, Scarborough" listed as a director of the Manchester Improved Cab Co. which had as another director Josiah T. Smith of the Barrow Steel and Hematite Co. (London Evening Standard 1887). He died at Haverhome House near Appleby, the Winn property formerly occupied by Roseby.⁶⁶

William Thrush Jefferson (1820-1891) was a solicitor and Registrar to Northallerton County Court. He seems to have lived and worked entirely in Northallerton (York Herald 1891) and his father, John, seems to have been described as "esquire". I can find no Winn connection or anything to link him to industry other than him once acting as the liquidator of a mining company (Yorkshire Evening Press 1891).⁶⁷ Winn was a magistrate for both the West and East Ridings and Edmund Winn was Treasurer to the West Riding so it is possible that there is a connection via that route but the actual connection remains a mystery. The ironmaster Sir Isaac Lowthian Bell lived in Northallerton from 1976 (which is, of course, after the 1872 company formation) and it would seem that Jefferson knew him from at least that date. It is possible that Jefferson was a proxy for Bell. This would be somewhat ironic as it was Bell who arbitrated in favour of Adamson and against Winn.

William Assheton Cross J.P., D.L. (there seem to be variations on the spelling of Assheton but this seems the most popular) is both another Winn brother-in-law (Manchester Courier and Lancashire General Advertiser 1846) and another military man who, when not in the army, lived at Red Scar

⁶⁵ Details traced at ancestry.co.uk. See also (George Grant Sanderson n.d.)

⁶⁶ Ancestry.co.uk.

⁶⁷ Gives a long list of funeral attendees and no names stand out as having connections.

near Preston⁶⁸. In addition to the connection of William marrying Roland Winn's sister, William's brother John was the Vicar of Appleby and, as mentioned, was the keen geologist that may have been instrumental in pointing out the potential of the ironstone to Winn and he certainly correctly identified the age of the bed in a later paper⁶⁹. Another brother of William was Richard Cross M.P., later Viscount Cross, who was Home Secretary from 1874-80 & again in 1885/6, serving in the same Salisbury government as Roland Winn who was a whip at the time. Thus there are very strong connections between the Winn and Cross families that are potentially of very significant political power.

William was chairman of the North Lancashire Conservative Association and his obituary says his son was an eminent engineer in Newcastle.⁷⁰

The establishment of the Redbourn Hill Iron & Coal Company represents the culmination of Rowland Winn's plan to wrest control of his assets back from his mortgagers and turn the family finances around. We shall hear more about the RHI&CC below but his ironstone mining operation would at its peak be producing 10% of all UK raised ore. It had taken him approximately 13 years to achieve this.

The point of the detail set out in the above sections is twofold. Firstly to show both the origins of those involved in developing operations in Scunthorpe, which are in line with the studies quoted earlier in that they are overwhelmingly the product of parents with expertise in some aspect of ironmaking, or have capital, or both. Only Adamson stands out in this period of development of operations as a self-made man. The Rosebys may only sporadically have capital but we can see that they have a lineage in ironstone and so don't really qualify as "self-made" men in the proper sense.

Secondly, to show the interconnected nature of those individuals and their operations. Frequently they have interests in other ventures in iron, ore, foundries, railways, wagon building, collieries, brickmaking, and so on. But further those interests are spread over a wide geographical area and surpluses in one area are distributed into these other areas. We see individuals often appearing to "hedge their bets" by pushing surpluses into haematite, lower lias (Frodingham) and Northamptonshire bed ores at the same time. These people are the industrialists, engineers and investors without whom operations in Frodingham could not have developed and hence who indirectly created the need for an urban centre. This wide dispersal of operations and actors reminds us of how correct Massey was to point out the importance of the spatial dimension in the creation of place. None of these actors, though, have a narrative about an urban centre. Adamson is the only one for whom a narrative of how the orefield could have been developed differently exists but he is not interested in an urban centre, quite the opposite, his preferred method of development would have dispersed population. And yet without all these actors connecting the orefield, strand by strand, to similar operations and markets elsewhere there would be no urban centre in Manley.

In the next chapter we will move from the situation during establishment where actors are dominant to the situation where corporate actors begin to emerge and operations begin to engage with and manipulate structures of government.

⁶⁸ (Hindle 2014). ⁶⁹ (Knell 1988, p 4)

⁷⁰ (Liverpool Mercury 1883)

Chapter Five

The coalescence of operations in Iron & Steel and the forging of an urban area.

In this chapter I want to examine how the iron industry develops and consolidates moving from actors with investments in individual operations across space into corporate bodies with integrated operations across space. I will show how this entangles this industry (and likely others I do not mention) with national government, due to increased exposure to foreign competition and markets, and how such consolidation plays a role in the collapsing of local forms of government into larger units as smaller units no longer suit the needs of consolidating operations.

Further I want to look at another aspect of this consolidation which shows in the urban response and that is the shift from employer, obligation for at least partial, housing provision to Local Authority and private provision. And in relation to thesis I will also be picking up the effects of landholdings, from previous chapters, and showing how this creates particular actors and patterns of development due to the particular circumstances of families of landowners, their willingness to sell/develop, and the location and size of parcels they hold.

Key sources for this section are the official company history books as well as Andrews & Bruner (1951), Boswell (1983), and Burnham & Hoskins (1943).

How and why operations on the orefield combine.

From 1872, when the last of the original works came on stream, to the turn of the century was a period of expansion and consolidation within the orefield. Initially every operation was producing pig iron – a basic commodity - but in 1890 the Frodingham Iron Company was the first one to move to produce steel from its own iron. By the end of the 19th century European producers had begun to have an impact in the marketplace. As steel began to verify itself demand for it increased so to keep up with that demand resources are utilised to increase capacity and, due to continued mastery over time & space by the use steamships of ever larger capacity and speed as well as an increasing rail network (here and abroad), foreign markets come within reach and production advances, in many countries, towards saturation. As particular markets reach saturation then tension rises between nationally based enterprises that can only be mediated at a governmental level. European producers which in turn lead to tariffs and cartelisation of the market. The large companies formed in the United States by Carnegie, J.P. Morgan, Schwab & Wharton – U.S. Steel and Bethlehem Steel – were also entering the world market as they exploited growth possibilities. Indeed we have seen that Adamson had some involvement with iron production in the USA.

The arrival of Lysaght's in Scunthorpe in 1911 brought a new dimension which further illustrated the capture of space and time, as we will see. Lysaght's built an integrated steelworks, that is to say a works designed from the start to produce steel from its own iron in a near continuous process, away from the main grouping on Sheffield land to the north. They had previously looked at Scunthorpe and dismissed it for another site only to find that the reserves promised were not actually available

and so they returned to negotiations with Sheffield. This new dimension, which further captures space and time, is the vertical integration of finished steel product providers backwards along their raw materials supply chain. In this case Lysaght's required steel for its production facilities in the south west and south Wales for the manufacture of "tin plate" products, predominantly corrugated sheeting, and they now see it as practical to produce a basic product in Scunthorpe and then ship it some 175 miles due to improvements in transportation.

In the same year Stewarts and Lloyds, predominantly a manufacturer of steel tubes, began its search for a secure supply of iron and steel that would lead to it buying Adamson's North Lincolnshire Iron Company seven years later. Interestingly it appears that Stewarts and Lloyds considered Corby, a place that will become important to our story later, as a site for investment at this same time. An independent report favoured North Lincolnshire and this was eventually acted upon with the intention of erecting an integrated steel plant in Scunthorpe. However Stewarts and Lloyds maintained an interest in the Corby area and problems with ore supply & quality, similar to those Adamson had experienced, as well as national economic conditions led them to never complete the steelworks at Scunthorpe despite preparing and levelling land. In 1931 they pulled the out of Scunthorpe and proceeded to build at Corby, selling the Scunthorpe site to United Steel Companies.

The Redbourn Hill Company (Winn, family & friends), had absorbed the Lincolnshire Iron Smelting Co. in 1882 but was itself bought out by a bar manufacturer in 1905 and in 1907 sold again to the Cwmfelin Steel and Tin Plate Co., of Swansea, which was part controlled by the Thomas family and in 1917 it became part of Richard Thomas & Co. who also operated in South Wales. This again seems to be the backwards integration of a predominantly "tin plating" company and again shows both the integration of supply and the collapsing of space between South Wales and Scunthorpe.

Meanwhile the Frodingham Iron and Steel Co., probably because of its early move into steel, absorbed the Appleby Iron Co. in a joint venture with the Steel Company of Scotland (predominantly associated with, and requiring plate for, shipbuilding) in 1912.

Thus in the run up to the First World War some flows of surplus are going into increasing capacity and process, notably open hearth steelmaking, but major flows of surplus seem to be directed at securing the supply chain by backwards vertical integration of the end product suppliers. This extended into both collieries and ore supplies. Operations in Manley were well placed here as they had a cheap and plentiful supply of ore and the ability to produce good metal in one place. It had good communications with coalfields, port and market, further it had plenty of space for expansion (more difficult to do in, say, Sheffield). Far and away the greatest long-term benefit for the ore field was the Great Central's decision to build the port of Immingham in 1912 (as well as its control of Grimsby Docks). Immingham was conceived primarily as a coal export dock but it was later able to be developed into a coal and ore terminal that would effectively make Scunthorpe steelworks a "port" steelworks. However the track and facilities at Frodingham were considerably congested to the point of being dangerous, a situation that would not be remedied until the 1920's.

The effects of WW1 and important connections with the Ministry of Munitions.

WW1 created opportunities for growth and expansion. Some producers were able to take advantage of the suspension of imports of specialist products from Germany (some steel processes used German pig iron) whilst overall demand, mainly from government of course, increased. Generally speaking government policy seems to have been to encourage industry investment in new plant and equipment, unlike WW2 when working existing plant to the maximum and importing the shortfall (Andrews and Brunner 1951, p 104, 112 & 235).

During WW1 some iron and steel works were placed on the list of "controlled establishments", including the North Lincolnshire Iron Co., by the Ministry of Munitions following the "shell scandal" (shortage) of 1915 and the general desire to align industry plans with war needs. Such listing entailed control of working conditions, pay and indeed whether or not workers were allowed to leave that employment. We can see this engagement with the Ministry as a period of protonationalisation and given that the Ministry "drafted" in some influential planners like Unwin and Pepler we can see this as an important pivot in terms of worker housing/urbanisation where operations begin to engage with governmental structure on this requirement.

Prior to WW1 the iron and steel industries involvement with government was concerned with attempting to get tariffs applied to foreign steel , but they did have a significant advantage over some other competitor countries due indirectly to British Imperial policy. Germany, though having limited imperial possessions, did have tariffs, cartelisation and significant subsidy via a partially government owned railway. Britain benefited by dispatching significant amounts of galvanised sheeting and rail track to British colonies and the shipping required to service a global trading empire also required significant amounts of plate steel. So there are difficulties in assessing "subsidies" arising directly or indirectly from government. But we can clearly see that within a few decades of the start of operations in Frodingham, operations in iron & steel are requiring government to become involved. In one sense this is to arbitrate with other governments on equitable pricing. Boswell places the "transmutation"..."*from privatism to politicisation, from individualism to a form of mixed, public-private collectivism.*" (1983, p 182) to the interwar period but in my view we can see the beginnings of that before WW1.

United Steel Companies

It was in that context that Harry Steel of Steel, Peech and Tozer (SPT), a Sheffield firm, conceived the creation of United Steel Companies. In the two year period between 1916-1918 Steel managed to construct a company roughly four times the size of SPT. There is no clear definitive answer as to why Steel embarked on this project. Boswell suggests that Steel himself suggested 'political influence' as a motive although this remains mysteriously vague (1983, p 44). Steels background was in marketing rather than process and he was a passionate advocate of protectionism as well as an ardent patriot. Our interest in this combine is that it purchased the Frodingham Iron and Steel Co. and bought out the Steel Company of Scotland's share of the Appleby Iron Co. forming the Appleby-Frodingham Steel Company. The groups span included steel works at Warrington, with associated haematite ore

mines as well as coal mines, coking plants, rolling mills and so forth in the Sheffield area and, of course, Frodingham.

Despite Steel having made a group not a lot is said to have actually changed (Boswell 1983, p 49). Unlike the ruthless trail of acquisitions made by Stewarts and Lloyds, where complete domination of its market (mainly tube) was the ultimate goal and where competition was bought out and either absorbed or shut down, USC components were not rationalised, integrated or centrally controlled for some numbers of years, indeed they even competed with one another and pursued their own expansion plans.

The initial optimism of the late WW1 period, as far as production went, soon came to a grinding halt in 1921 when demand for iron and steel plummeted. The general strike of 1926 also affected production and 1931 was a particularly bad year too. Despite these sharp downturns, with some plants mothballed, the overall output picture was actually one of significant growth by a factor of about six times in the inter-war period.

On social policy USC seems to have regarded its existence not just as a means to make surpluses in iron and steel but also as seeing surplus making as a social enterprise. Boswell says that USC averaged donations of 1% of profits to social causes in works areas throughout the inter-war period (Boswell 1983, p 177). Further evidence of this was its reluctance to rid itself of the burden that was its Workington and West Cumbrian operation which was unprofitable and, almost from its acquisition, seen as Steel's mistake⁷¹. The impact of job losses in the area, should USC close that operation, was a significant and overriding concern of the board for many years and showed that USC had an interest in non-monetary surplus or had a social conscience⁷². This attitude, as we shall see, would seem to be responsible for USC taking the lead role in the ill-fated development of the proposed workers housing scheme in Brumby

USC came to the attention of the "businessman/financier" Clarence Hatry, an American by birth, who had the idea of reshaping the UK iron and steel industry (Andrews and Brunner 1951, pp 159-161). In 1929 he created a shell company, Steel Industries of Great Britain (SIGB) and purchases USC through it. The USC board thought that this was the way forward to their urgently needed financial reconstruction. And so it was but not in the way expected as Hatry was in a financial black hole of his own which he attempted to extradite himself from by duplicating stock certificates and obtaining different bank loans on each set. As a result of this fraud he was gaoled for nine years. Because the SIGB was also backed by a number of respectable city institutions USC was saved from oblivion and financially reconstructed in 1930. These reconstructions are said to have saved the company interest payments alone of £400,000 a year (Boswell 1983, p 143).

Rationalization was further aided by the government sanctioned, industry led British Iron & Steel Federation (BISF) from 1934 and the government backed Bankers' Industrial Development Company (BID Co.) from 1930, which provided funds for modernization and rationalization. So we can see that from WW1 the aims steel companies (and others) are significantly impacted by government war aims, the resulting over-production, and post war government policy. Thus although eventual

⁷¹ No doubt Steel saw the prospect of having a hematite plant in the group as "covering all bases" as far as the market was concerned.

⁷² Or perhaps this is Government inspired back door social policy, given the speculation as to Steel's motives.

nationalisation is sometimes portrayed as something out of the blue it can be seen as being part of a process of evolving mutual entanglement of operations and government from the time when competition in foreign markets (i.e. non Imperial) and competition from foreign producers in the home market began to matter circa 1880.

Operations and the amalgamation of Government structure.

As operations in iron and steel combine and exert control over a wider area you can imagine that it is more beneficial to them to have a single authority to deal with rather than a number of them, each with a differing policy agenda. You might consider this analogous with the need to introduce standard time across the country, as the railways expanded, in order for timetables to work. Consider the following two figures.

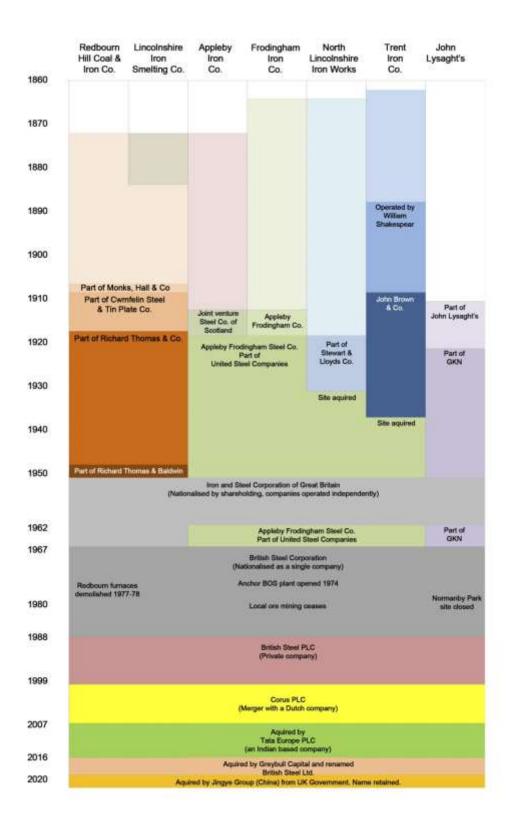


Figure 23 Evolution of Iron & Steel Companies on the Frodingham orefield.

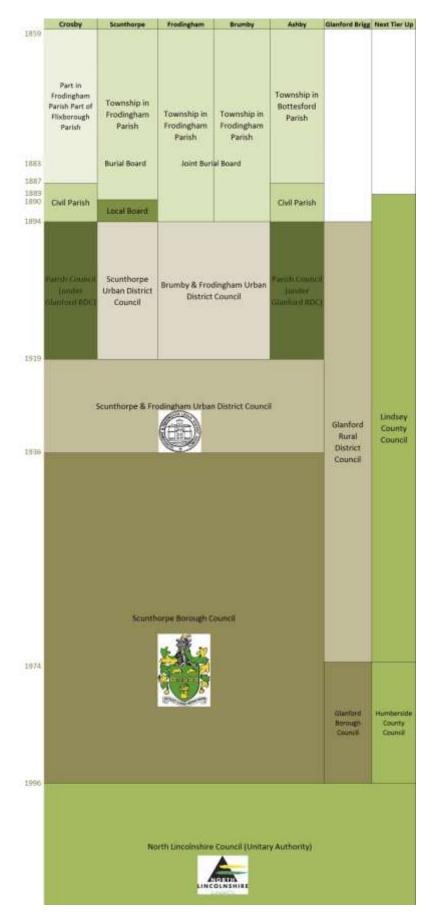


Figure 24 Evolution of Local Government Institutions on the orefield.

Local government is solidified as steel companies consolidate. Although there are other national factors to this, it can be seen that there is some approximate linkage to this effect, particularly at the time of the formation of Scunthorpe & Frodingham UDC, in 1919, when the Ironmasters and the major landowners conclude the time is right for this move because it now suits the needs of operations to have a single point of control whereas it hadn't before (Armstrong 1981, p 64). Seven companies have become five companies by then. Borough status is achieved in 1936 after the departure of Stewart & Lloyds and the expansion of Appleby Frodingham by which time five companies have become three. To be clear I am not suggesting that the reorganisation of local government in the UK was driven by the requirements of producing surplus in Scunthorpe or even producing surplus in steel elsewhere but what happened in Scunthorpe is indicative of what happened elsewhere and in other industrial operations and thus suggestive of operations driving consolidation.

Interwar years and the problems scale brings.

Following financial reconstruction the USC group turned itself from a loose association of companies into an efficient entity. Growth through efficiency was the goal and group coordination was developed utilizing modern management techniques. Centralised services, phasing out of duplication, group purchasing and the right balance of central and devolved management were achieved, taking the group to a prosperous period in the '30's (Boswell 1983, ch 7). Plans for Scunthorpe comprised of the South Ironworks development which involved a completely new works with four blast furnaces and associated coke ovens, ore preparation & sinter plant etc. which was to be largely on the land acquired from S&L. Two furnaces were completed before WW2 and two after. Indeed USC seemed the model for what rationalisation could look like and thus the narrative of USC's Appleby-Frodingham works was one of modernity and success despite this narrative having a restricted audience.

Whilst operations at Scunthorpe were better placed than in many other areas, particularly as USC had "accidentally" restructured itself, they were not as good as they could have been as they differed between the firms. In terms of output of steel ingots, by 1929 United Steel Companies had moved from third place nationally (in 1921) to first place, a position it still held in 1937. Furthermore, in 1929, USC's cost of production at Appleby Frodingham was matched only by the Shelton Iron & Steel Co.⁷³ in Staffordshire and was significantly lower than other large producers (Tolliday 1987, pp 18-45). One might have expected Richard Thomas' Redbourn works to have achieved something similar to USC's 79s. 2d. steel ingot cost in 1929 but Tolliday suggests that costs were between 109s. 6d. and 92s. 1d. We know these figures because RT & Co were considering seeking to merge Redbourn with USC's Appleby Frodingham and a report suggested that such a completely reorganised new plant could have brought costs down as low as 60s. 10d. however no such merger took place.

⁷³ Acquired by John Summers & Co. in 1920. Shelton was an efficient works on a coal/ironfield and well connected by railway and canal but steel production closed in 1978 when production moved to "costal" sites. Rolling ceased in 2000.

As Redbourn and Appleby-Frodingham are adjacent to one another and utilise the same ore it is worth considering why Redbourn costs were greater as this will lead us into considering the prospects for further expansion of a by now already huge enterprises. Tolliday tells us this:

"The balance of the plant was poor: all the departments could not possibly run simultaneously at full capacity. The blast furnaces and coke plant could not meet the demands of the steel furnaces, whereas if the latter were run near capacity by outside purchases, their output exceeded the capacity of the rolling mills by 33%. The rolling mills themselves were poorly designed for their task....Poor layout made handling and scrap arrangements wasteful. Although two of the blast furnaces were mechanically charged, poor ore crushing facilities made this operation less successful than hand-filling would have been..... The inadequate coke batteries.....worked below optimal temperature This reinforced the persistently poor performance of the blast furnaces. These failings in capital equipment were compounded by poor management, which left many minor but costly defects untouched." (1987, pp 38-39)

What we can see is that efficient operations within a plant require internal surpluses to be finely matched to one another. Surpluses of ore and coke must match blast furnace capacity and surplus from the blast furnace must match capacity for the (in this case) open hearth furnaces. In turn their surplus must closely match capacity of rolling mills and surplus of end product must fit with market capacity. Thus one can appreciate that varying end product surplus in any significant way now entails very significant investment in each dependent area. Each dependent area required possibly hundreds of workers and would be the size of a medium enterprise on its own. Whilst some piecemeal improvements relating to cost savings are always possible any shift in surplus is now fraught with instability and has the possibility to create significant costs very quickly. We have moved a significant distance from the production of pig iron by the likes of Adamson and Dawes, risky though that was, to a point where investment decisions require some higher degree of integration.

This highlights the inertia that an integrated plant can accidentally attain. Older, possibly nonintegrated, plants were probably fully amortised and could stagger along at perhaps as low as 60% of capacity, although maintenance costs would eventually render it unviable, but committing to a new efficient integrated plant would mean needing to run it at 90% capacity. And as stated above any improvement to an area of production in an integrated plant stood the high chance of being unable to be fully exploitable unless downstream areas were also upgraded. Thus technological "inventions" which might increase productivity in one area may have been "discovered" for years but have to lay dormant until a cycle of capital investment can be justified. This has implications for place as it may well be more cost effective for a corporation to abandon a site that has become uncompetitive and invest elsewhere, be that in a greenfield site or at an existing site in another country if that can be bought cheaply and run at lower capacity. Thus United Steel Companies can promote a public narrative of success for its Appleby Frodingham South Ironworks investment, from the mid '30's, but that narrative could, in part because of the sheer scale of the investment turn very quickly into one of failure.

Negotiating with Government through public narrative.

An example of how engagement with government operated in the mid '30's can be found in Richard Thomas' decision, taken in 1934, to build a new strip mill (this was to be the first strip mill in the UK and in theory significantly reduce costs). Whilst this engagement with government certainly concerned private meetings it was also heavily narrated in the press, particularly in South Wales. Although originally announced by RT as to be built in Scunthorpe the mill was, in fact, built in Ebbw Vale, South Wales.

The change in location was an attempt by RT to manoeuvre government into backing the scheme which it thought would assist it in gaining additional financial support from the City. Ebbw Vale was designated by government as being in a Special Area (of economic hardship) and Scunthorpe was not (Tolliday 1987, pp 51-55). Ebbw Vale, "an inland hill site" was "anachronistic" even by then but for the government the spectre of a more worrying surplus, that of unemployed workers in South Wales and the anti-government sentiment that was already bringing, made government "hostile" to RT's proposed investment in the more operationally logical Scunthorpe site⁷⁵.

In reality it appears that the building of the strip mill in Ebbw Vale did not improve the surplus of unemployed workers in the area and may have actually increased it. .

RT appeared to change their mind on the Scunthorpe plan in a very public way, placing a significant investment in new technology in South Wales after a very public debate in the newspapers, particularly the Western Mail. In that debate from the announcement in June to the change of mind at the end of the year, politicians and union officials in South Wales projected a narrative that milling was historically a feature of South Wales and should remain so, that it was, in fact, somehow inherently identified with South Wales. The revised decision gave those in South Wales, who needed it, the opportunity to project a positive public narrative of the area because this decision showed investment in new technology and a belief in the area. This was the reverse for the "loser" Scunthorpe, however there seems not to have been the level of concern for gaining the mill there in the first place.

Tolliday (1987) implies that RT may have been prepared for this outcome at the start, expecting the public debate, and using that to try to extract financial support from government. The government, too, were also able to portray this as a successful outcome for themselves. We see, then, very public narrative concerning this sort of investment decisions being made and played out in the media, by now including radio as well as print. The narratives deployed in these public debates, though still mainly concerned with operations, are becoming more concerned with the public perceptions of place.

⁷⁵ Location in Scunthorpe would really have required the mentioned merger with Appleby Frodingham and thus have required raising a significantly larger amount of finance. Ultimately no direct government finance was given. A temporary improvement in market conditions led to private backing but the market subsided in 1938 putting RT & Co.'s existence in jeopardy. Redbourn works had been closed towards the end of 1930 and didn't reopen till mid-1933. With a partial shutdown at Lysaghts, the closure of the Trent Ironworks and the departure of Stewarts & Lloyds to Corby as well as the Redbourn closure there were said to be 3,000 unemployed at this time in the Scunthorpe district.

Post WW2

Whilst the increased production demands of WW2 and the policy of limited replacement or expansion exposed the antiquated and dilapidated nature of much of the industry once the war had ended, Scunthorpe and in particular its USC plant exited in a good position. The industry had come under greater political control throughout this war than in the previous one and in the post war period came under the "threat" of nationalization.

USC was able to complete its South Ironworks plans and develop its structural steels division including design and engineering services, and as a result broadening areas of potential surplus. Thus USC was atypical of the industry as a whole at that time, although the Lysaght's works in Scunthorpe had also been improved⁷⁶ and could be said to be reasonably efficient too. RT & Co. also managed to improve blast furnace capacity in the post war era.

A point is reached in the late 40's with steel generally that there was a deepening sense that the steel industries of the UK were also to be viewed in consideration with the steel industries of the rest of Europe as well as with global competition. Nationalisations are effectively a kind of creative restructuring. The realisation that significant growth in the steel sector was unlikely is linked with the fact that there is significant legacy plant across Europe. This leads to a situation where either a significant surplus of product continues to be made with no market for it or a significant surplus in unemployed workers was produced. The emergence of European and world bodies to attempt to establish areas of commonality that is to say pan-national areas where the value of items like steel and the amount produced are mutually arbitrated without the need for national tariffs and quota, begin to drive government action on surplus priorities. From now onwards despite the appearance that individual governments are still in complete control power is, in fact, moving to a pan-national level.

To some degree the "decline" of UK industries is only to be expected as the UK market itself reaches maturity and other markets offer greater potential for the production of surpluses. In some products iron or steel are being replaced by lighter materials such as aluminium or plastics. Whilst that remains possible, pressure for increased productivity remains weak. We have seen manufacturing flow to lower cost countries in recent decades and this has not been met necessarily with productivity increases.

At the root of the post WW2 dilemma for the country is the question of which surpluses are more important. Is it a surplus of product that is required (i.e. greater product), is it a surplus of people in work, is it a surplus of foreign currency or is it some other surplus or combination thereof? The population of the UK may well feel that full employment is required, government may feel that the balance of trade is important, and the industry itself may want to reduce labour. Advocates for any particular surplus will need to produce supporting narratives, whether these are to be deployed in public or in private, in an attempt to get policy enacted.

The immediate post war period is, of course one of barely organised chaos. Government had to contend with an unwanted surplus of soldiers and with lack of demand, lack of materials and little

⁷⁶ Lysaght's took the gambol in 1930 of investing £400,000 (about £24 million at 2018) in its Scunthorpe works, by now being known as the Normanby Park works.

money for investment. The government was again involved, along with other allies, in the reconstruction of Axis powers industry too. But in the UK the requirement of government to halt rationalisation in the need to accommodate the surplus in labour and the need to cut surplus production of product led all to quickly amongst the general public to the narrative of the steel industry changing to one of overmanning, sloth and waste. Again these general and indirect narratives clearly have an effect on any steel town, no matter its actual performance, including in Manley.

The plan USC had developed for Scunthorpe in the post war period anticipated the next geographical shift in the UK steel industry and that shift was to port based works. As home ore was phased out and, indeed eventually home coal, access to deep-water ports became an advantage for the import of ore and coal as well as the export of finished product. Again we see the effects of the contraction of space and time in that it becomes viable to move ore and coal greater distances. Thanks to Scunthorpe's direct rail connection with Immingham it can now transform its narrative to one of a "port" steelworks without actually changing its inland location. Had Scunthorpe not been able to recast its narrative then it would have disappeared at the same time as Corby. To be clear the basis for iron and steel in Scunthorpe had chiefly been the availability of cheap ore and by the 1970's that advantage was disappearing fast and ore extraction stopped in the early 1980's.

Thus when public ownership for the second time finally becomes a fact in 1967 there had been 20 years of unfocused direction, overmanning and underinvestment. Fortunately for Scunthorpe, British Steel continued USC's plan and made Scunthorpe a favoured centre for investment in new steel production. The £235 million of investment in 1970-73 (somewhere about £3 billion today) saw the building of an entirely new Basic Oxygen Steelmaking (BOS) plant together with a continuous casting plant (Concast), bloom & billet mill, medium section mill, ore preparation plant & new ore terminal at Immingham. Basic iron was provided by the former USC's four blast furnaces. There was a price to pay for this expansion and modernisation in that the Redbourn works was closed between 1977-79 and the Lysaght's works (by then technically known as the Normanby Park Works) was closed between 1980-82.

Since the zenith of steelmaking in Scunthorpe in the mid '70's it's been a downward trend as far as investment and jobs in steel in Scunthorpe. BSC provided reasonable if declining stability before being privatised in 1988. For a few years after privatisation the narrative the company projected was that it was the most profitable steelmaker in the world. But this may largely have been the result of writing off or restructuring most of its debt burden, much in the same way that USC was turned around in 1929. It later merged with Dutch firms to form Corus in 1999 and subsequently was taken over by Tata Steel of India in 2006. In 2016 The Scunthorpe plant and Long Products division extricated itself from Tata and was bought out by Greybull Capital for £1. Its subsequent collapse into administration in 2019 put the future of the plant in limbo and it was supported by the government until "bought" by the Chinese firm Jingye in 2020. As I have argued above, the rapacious need for a system for operations to control and shrink time and space decreases the viscosity between operation (and thus employment) and place. For example if it becomes ever cheaper to import (higher quality) ore from elsewhere and by the same means to move finished steel to where it is needed then the whole reason for locating the making of steel in Scunthorpe comes under question and the what was once more certain becomes less so. The only possible answer to that is the recasting of the narrative of what steel production is for. Is it, for example,

critical to keep the ability to produce steel in the UK for reasons of national security or for employment reasons or some other reason? Politicians, such as the former minister Michael Heseltine suggested in 2015, concerning the perilous situation with the Redcar steelworks, that steel was one of "*yesterday's industries*" whereas the local MP described steelmaking as a "*foundational industry*" (Hetherington 2015). Each had constructed a narrative to suit their objectives. Heseltine also deployed the narrative that "*market forces*" could not be ignored in the same article, thus suggesting that the needs of operations (in general) will be the most powerful narrative. As that plant did in fact close then his narrative was verified regardless of what we might feel about that. We notice here that Heseltine's narrative appears to attribute agency to operations in the form of a thing called "the market".

In the sections above we have seen how operations on the orefield coalesced into three main groupings, two of which were integrated with operations in South Wales and the South West whilst the other was grouped and eventually integrated into operations in Sheffield and Workington. This integration was made possible by the ability of operations to continually compress space and time. In the course of this it becomes clear to Ironmasters on the Frodingham orefield that it would be more advantageous for them to deal with a single authority than to play multiple authorities off against one another. I take this further by tentatively suggesting that this is an ongoing general trend for operations, as they expand spatially, to demand the integration of units of government (or at least the rules by which they must operate) within the UK. Further, though, as operations in iron and steel advance into foreign markets they must engage with national government as it is only national governments that could decide tariffs and quota. This engagement with government eventually leads both to the temporary but inevitable periods of nationalisation and to the creation of pannational organisations such as the European Coal and Steel Community (from 1951), where value is arbitrated across national boundaries.

We see, then, that if any particular group want to retain an industry in a location then they will need to develop a strong and evolving narrative if they are to succeed against alternative narratives put forward by those who do not want to retain an industry, be they management, shareholders or other citizen groups. The local management at Scunthorpe was able to successfully portray itself as a "port" steelworks and save itself from complete closure in the late 1970's. Steelmaking in Scunthorpe has, however, come under significant pressure since 2016 and there is a requirement for any interested party to come up with another narrative about why producing steel in Scunthorpe is a thing that has importance.

Having brought the narrative of operations in iron & steel up-to-date and shown the plethora of private, public, and mostly indirect narratives that create the need for Scunthorpe I now want to look more specifically over the next sections in this chapter at the development of housing in Scunthorpe. This will reacquaint us with the various types of landowners we introduced before and we will see how those land parcels are developed and the actors that are created in doing so.

Housing

In chapter six I deal specifically with a particular narrative associated with housing, its use by Scunthorpe and the changing reasons behind that. So in these next few subsections I want to introduce some background on the shape of housing development and the reasons behind the way that it progressed as well as the actors it created. We will be looking at the numbers of houses being built, who is building them, and how that compares nationally. Then we will be looking at the evolving mechanics of land sales and of how that drives the creation of actors. After that we will be looking at the circumstances of the major landholding families and we will see how their engagement develops. Finally we will look closely at an area of land developed in the late 1920's and 30's when a class of builder/developer emerges.

I begin with a brief overview of the national situation before giving background to the situation in Scunthorpe.

In 1900 houses were selling for £200-250 (Justice 1999) and would, technically, have been affordable to quite a large segment of the population. Teachers, policemen, clerks and probably quite a lot of iron and steel workers would have been reasonably able to buy a house at that time had other costs been proportionately similar to todays but funds were not available as a very much greater portion of household spending was directed to the purchase of food(circa 40% (L. Jackson n.d.)). Thus it has been estimated that in 1900 less than 10% of UK homes were mortgaged (Hicks 1999).

What I think is important to understand is the changing narrative of the house from the necessity that an employer would need to provide (essentially a cost of production) into a retail object (a sector capable of the production of surpluses in its own right and a place for the consumption of surpluses).

Situation in Scunthorpe.

Now I want to look at the overall picture of housing development in Scunthorpe, mainly with regard to numbers of units and broad responsibility for the production of those units. Figures are mainly taken from Hartley (1969), and Bowyer (1964). The reader might like to consult Appendix B for a series of drawings covering the expansion of housing and the formation of Scunthorpe to familiarise themselves with locations.

When the expansion of Scunthorpe began in the 1860's provision of new housing was largely a matter for employers and some private landlords. We have seen that Winn created New Frodingham, as well as rebuilding workers accommodation in his (farming) estate village of Appleby, that the Beauchamps built a smaller New Brumby (adjacent to New Frodingham) and that there were some houses built on the orefield including some by Appleby Iron Co. at New Santon.

We noted previously that the distribution of land holdings and the type of actor who held them had a marked effect on the availability of freehold land and that this lead to the faster development of Scunthorpe and Ashby villages. This was something the rival Winn owned New Frodingham could never overtake, perhaps mainly because of his preference for leasing rather than selling. It is not, of course, till much later that we see larger council house schemes appear.

We could see the steel company plans of 1918/9 to build a large number of houses, explained in more detail in the next chapter, as being still in the substitute role of someone like Winn, a kind of "nobles oblige". This would be in line with Boswell's suggestion of an inter-war turn to social engagement by the steel companies (1983, ch 8). Or we could see their actions as a sensible commercial move given that output was expected to rise and hence extra labour would be required so creating a surplus in housing stock where none existed would allow future profits to be made as a consequence. Alternatively we could see this as a social policy being driven by government or, indeed, as a strictly war related necessity. Its non-materialisation makes the argument a moot one, in any case.

Owen Hartley (1969, pp 214-270) chronicles council housing provision in Scunthorpe and seems to be of the opinion that not enough was done and what was done wasn't done quickly enough. Nevertheless significant schemes were undertaken from 1919 and they were complimented by a small number of trade unions and guilds ventures. Thus far housing had not evolved into a significant source for the production of surplus in that build costs were difficult to justify against likely returns. Individuals were beginning to see surplus by building to let, taking in lodgers or by building boarding houses but it required the availability of financial and legal technologies such as mortgages to become widely available before housing could really take off as a centre for the production of surplus in its own right.

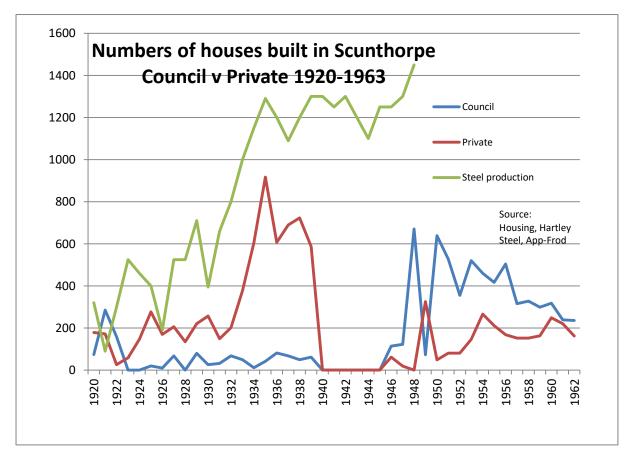


Figure 25 Housebuilding in Scunthorpe set against Appleby Frodingham steel production 1920-1960

Converting the tables in Hartley's thesis (1969) to a graph (above) provides us with a breakdown of the split between public and private housebuilding in Scunthorpe between 1920 and 1960. Adding steel output from Appleby Frodingham Co. alone (G. B. Walshaw 1950) gives an indication of what was happening to production in the period. What we see is an initial surge of council house building, a large part of which will be the "garden city" inspired Henderson Avenue scheme (of which more in the next chapter) but from then on the average seems to be about 50 units/year till 1940. Interestingly we see the 1921 crash, which badly affected steel, resulting in a steep drop in private building, which didn't recover to the same levels till 1925. The council building program suffers a similar decline but off-set by a year and taking a longer time to recover to a norm. The private sector seems to average about 200 units until it takes off in 1933.

The parlous government finances in the aftermath of WW1 meant that subsidies for housebuilding were difficult to find and by 1933 they were withdrawn altogether. The marked dip in Scunthorpe council housebuilding in 1934 is probably a result of that but the 1926 drop in steel manufacture seems to impact only on private housing and the 1931 steel dip seems to have a visible impact too. Having said all that when we consider an average of 200 private and 50 council houses through the bulk of the 20's this equates to just about 5 houses per week – so these are small numbers subject to a variety of variables in a financially difficult time.

Whilst base rates vary between 3 and 6% in the 20's, inflation is mostly negative. Certainly there is a turning point both in national figures – inflation edges upwards and base rates begin a long steady spell at 2% - and in rate of growth in housing in Scunthorpe during the 1930's. As you can see from the chart below the rate of growth is faster than the subsequent post WW2 growth.

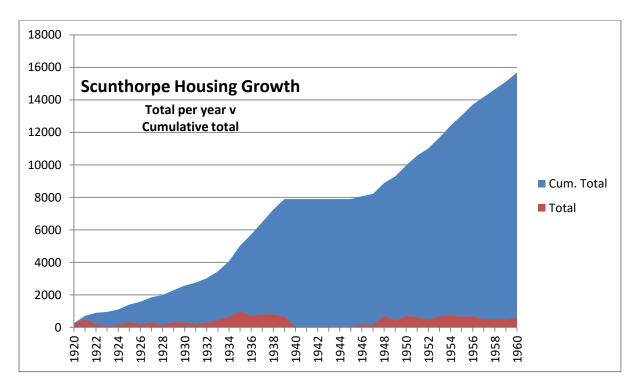


Figure 26 Rate of housing growth. Plotted and interpreted from figures in (O. A. Hartley 1969)

Comparing house building in Scunthorpe with the UK as a whole we see that pre WW2 council housing gets off to a favourable start but fails to keep up with national rates yet exhibits a similar pattern of peaks and troughs with the exception of 1928 and from the mid 1930's drops away from the UK total. Pre-war private housebuilding compares well with the UK total. Post-war it is the other way round, at least until 1960. The cross over point nationally would seem to occur in 1957 but for Scunthorpe it probably occurred in the early 60's.

From the late 1950's significant amounts of housing aimed at people who work in Scunthorpe are being created in surrounding villages, aided by better transport links and greater car and motorcycle ownership. Here we have a more subtle, perhaps, manifestation of the collapsing of space and time as well as a further manifestation of the problem of drawing lines round "things" on maps that Massey identified. This brings into question what housing statistics for the Borough of Scunthorpe might mean beyond the mid '60's.

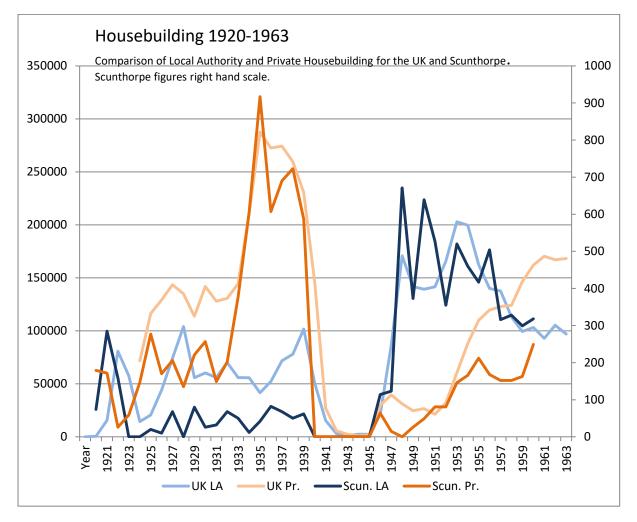


Figure 27 Housebuilding Scunthorpe compared to UK. Scunthorpe figures from (O. A. Hartley 1969). UK figures from (Mitchell 1988)

What we can say with some certainty is that there is proportionately an enormous boom in the '30's and that whilst the post WW2 boom is more sustained the 1930's were very significant times for Scunthorpe. Much of the 1930's housing appeared on the land in Brumby bought by the steel

companies in 1918 for their proposed but abandoned workers housing and subsequently sold off for both private and council development.

Post WW2 it was the Council that set the pace with housing. From reports by the Borough Engineer, F.J. Bowyer, (1964) we learn that in the inter-war period the council built 1,188 homes but from 1945 to 1964 the council built 6,500 homes on eight developments, the largest on 200 acres (which I assume to be Lincoln Gardens), whilst private builders accounted for 2,300.

I have seen a figure of peak steelworks employment being 26,000, however I can't verify or secure a date for that but an approximate number of 20,000 is given for 1968 (Fisher 2018) but by 1968 significant mechanisation would have reduced numbers somewhat so a higher figure for an earlier date seems credible.

That, then, gives us an overview nationally and locally of overall housing development. Now I want to take a more detailed look at how an urban area to be called Scunthorpe was shaped.



Turning bricks & mortar into surpluses.

Figure 28 1887 Ordnance Survey of Scunthorpe. ©Crown Copyright. Reproduced by permission of Ordnance Survey[®].

Having given an overview I now intend to look in more detail at the mechanisms that led to urban formation in Scunthorpe. We are going to look at how the ownership of land, by the families we have mentioned above, influenced development along with the way the disposal of land helps create and destroy particular kinds of actors.

In figure28 we can see what the initial response to housing and commercial premises requirements in the village of Scunthorpe. The exact timings of these streets are difficult to determine as the central area has been completely redeveloped and access to deeds improbable. However from census returns we can determine that other than infill and conversion along High Street the first development, as such, would appear to be that of Church Street and Chapel Street with Providence Terrace, below the west (left hand) side of the Y feature. I can't be completely sure about this but it would seem to be Winn land and appears to be contemporaneous with the building of New Frodingham although these streets are not developed along the "model" lines of New Frodingham. Indeed these streets seem, from the O.S. map, to have several types of house plan. There would appear to be some 30 inhabited dwellings by the 1871 census. Also contemporaneous with these developments is Park Street, progressing north/south from just west of centre of the upper part of the Y feature. I strongly suspect that this was on Parkinson land and at 1871 there appear to be some 17 houses on it.

By 1881 there are several more streets. The "breakout" expansion is Manley Street heading from High Street south to the Frodingham boundary. This is also a development of Parkinson land, indeed it links to another piece of Parkinson land over the boundary in Frodingham, which they may have considered for development sooner but it was quarried for ironstone, presumably deemed to be more profitable, and not developed for housing till much later.

From the 1907 O.S. I can tentatively identify some 70 houses on the ironfield adjacent to the various works, with some 40 adjacent to the works furthest away from Scunthorpe.

New Frodingham appears to start between 1861-71, with about 80 dwellings by 1871. By 1881 New Frodingham had reached 183 and New Brumby had reached 47. By 1901 New Frodingham had only built a further 12 houses and New Brumby had peaked at 132 houses. The rigorous grid pattern of terraces and the provision of service buildings; school etc. mark out New Frodingham as a serious attempt at a planned community. It is clear that some of Winn's surpluses are being channelled into community buildings and in this last quarter of the 19th century, as a large landowner, he is not unusual in doing so.

Whilst the brick terraces being erected in this period and later are not viewed well from today's perspective and, indeed, were not well viewed soon after they were built with builder, councillor and later MP Lord Quibell (1879-1962) calling them "brick boxes with slate lids", it is worth reminding ourselves of the kind of accommodation that they replaced or superseded (see figure 32) which consisted of whitewashed undressed stone walls with thatch or pantile roofs.



Figure 29 Typical vernacular style of the study area. Copyright North Lincolnshire Museum Services, used with permission.

I now want to take a look at sale particulars and show how land was sold, how it was developed and the effects this had on the creation of actors. The earliest development land sale particulars I have been able to locate relate to 1890. This Section of land, previously known as "Gurnell's Closes" was the property of the Wells-Cole family, part of their inheritance from Robert Clarke. It would appear from the sale particulars that the Wells-Cole family have taken the decision to partially develop the land themselves by putting in roads and sewers and selling off the resulting plots, some of the streets having a defined "building line". This type of land sale remained a popular way of selling land whilst exercising some control over the end result.

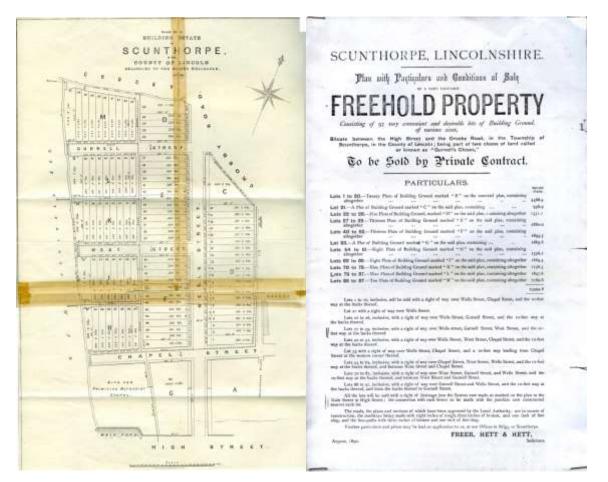


Figure 30 Sale plan and particulars Wells Street 1890 (documents in my possession).

Whilst respecting the existing line of Chapel Street the plan forgoes extending Church Street and sets up a revised grid capable of westward expansion. Lack of coordination between Wells-Cole and their Parkinson neighbours subsequently leads to a slightly awkward curve to connect a westward extension of Gurnell Street by the Parkinsons.

In 1902 some 16+ acres of land, close to the centre of Ashby and off the High Street (see figure 31 below) with development potential is, apart from one main road frontage plot, still being sold as lots, corresponding to closes, for agricultural purposes, even noting in the particulars that one close is "valuable grassland" when one might have concluded that it is more valuable as building land. I do not know the vendors of this land but I note it is for sale by auction, which could mean sale at any price as no reserve is mentioned. This is suggestive of a requirement of funds possibly leading to a conclusion that this might be the reason for no infrastructure investment, unlike the Wells-Cole and

Parkinson developments. The 1909 sale, also by auction, for Green's trustees shows a rather crude division mainly into new plots but with lot 15 as the close that it was. From the key plan we see additional fields, for sale as such, some distance from development potential.

With the 1964 O.S. map superimposed (see figure 32 below) we can see what local builders actually made of these lots/plots and get a reasonable idea as to which lots/plots were bought by the same developer. In 1902 it is reasonably clear that at least lots 1-3 went to the same developer.⁷⁸

In the 1909 sale the purchaser of lot 14, the land to the rear, has also bought lot 5 possibly to give them another potential entrance to the lot.

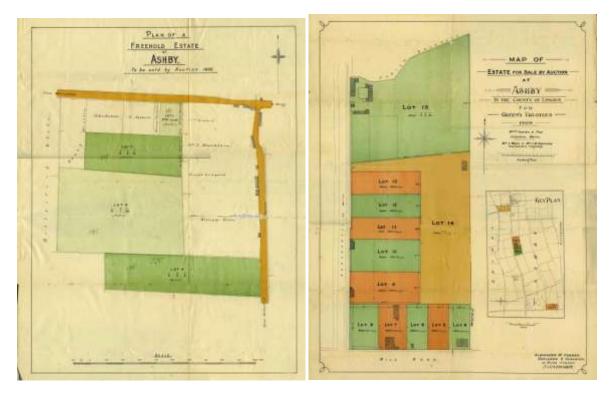


Figure 31 Types of auction sale 1902 & 1909 (Mill Farm, Ashby) Documents in my possession.

⁷⁸ These plots were purchased by members of my family including lot 4, though that is not apparent from the plan.

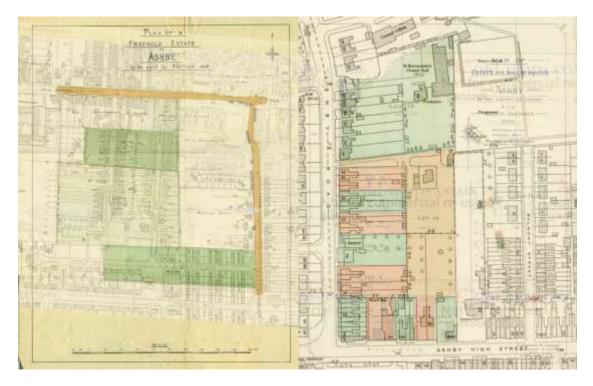


Figure 32 1902 & 1909 land sales with 1964 OS map superimposed to show "as built" comparison. Left overlay map ©Crown Copyright. Reproduced by permission of Ordnance Survey[®]. Right overlay Ordnance Survey map from the now defunct old-maps.co.uk website which permitted non-commercial use.

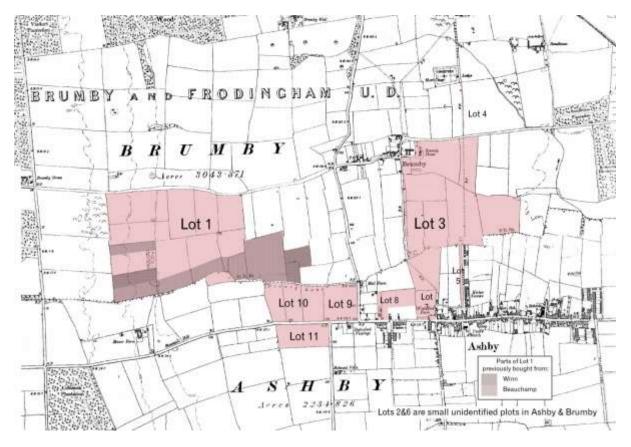


Figure 33 1918 Wells-Cole auction sale 288 acres. Reconstructed map from sale particulars plotted onto 1907 O.S. ©Crown Copyright. Reproduced by permission of Ordnance Survey[®].

In 1918 it would seem that the Wells-Cole family decided to divest themselves of their remaining land holding in the study area.

The organisation of the lots is interesting as lots 1 & 3 are clearly aimed at an agricultural use, possibly as a stand-alone farm business unit, even though lot 3 runs up to Brumby village whilst lots 7-11 get bigger as we move away from the centre of housing and commercial development. As the small closes nearer to the centre of these villages get built upon and as agricultural practice has tended to combine smaller fields into larger blocks, the capital required to buy developable land must increase too. So, for example, in this sale it is still possible to buy lots 7 & 8 at circa 4 acres but soon the norm will be lots 9, & 11 at circa 10a or lot 10 at 18a.

By 1928 Church Farm in Ashby was sold in just two lots (see figure 34 below). Lot 2 consists of two cottages on High Street, a total of circa half an acre, whilst lot 1 is nearly 96 acres. Therefore should you wish to be a builder-developer you have moved from easily being able to locate say 4 acres around the turn of the century to potentially needing to buy 96 acres as you move to the 1930's. Whilst there will still be some small acreages come up for sale land will increasingly be sold in larger bundles. Of course you could form a consortium to buy or buy and sell on parts but you were still going to need access to larger amounts of capital. However if you are a builder, that is to say one who makes their surplus from the return on the construction of the dwelling rather than one who makes their surplus on the sub-division of the land, then there are likely to continue to be plots available from those who do have the capital to buy the larger acreages and afford to sub-divide.

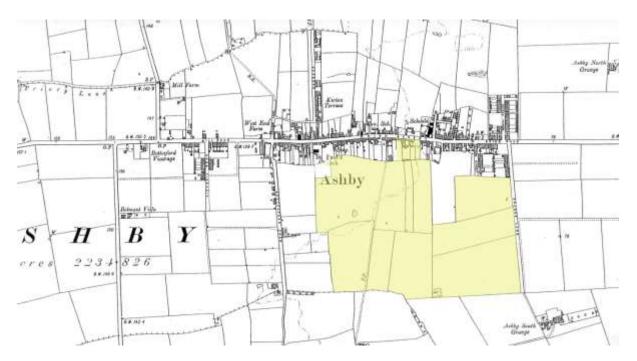


Figure 34. Reconstructed sale plan for Church Farm, Ashby, 1928. Underlying map ©Crown Copyright. Reproduced by permission of Ordnance Survey[®]

Other large land sales to developers in the Ashby area were Manor Farm at circa 298 acres in 1920, Leys Farm at circa 165 acres in 1948 and Ashby South Grange at circa 100 acres in 1953.

So we can see that, overall, developing Ashby requires significantly more capital, as time progresses, because those actors who are selling land are no longer selling small individual lots but whole farms and thus forcing the creation of an actor we would call a "developer" who is, in general, separate from the actor we call "builder" and is someone capable of raising significant capital. Subsequently that "developer" actor will, in general, assume the role of builder too.

If we want to see how land ownership changed then our only comprehensive survey following the enclosure award/tithe maps are the land tax maps circa 1910. Comparing figure 9 with figure 35 below we see that expansion of Scunthorpe village has been westwards within the parish boundaries largely on Wells-Cole and Parkinson land. Frodingham remains largely undeveloped and this was largely due to Winn and Parkinson both exploiting ironstone reserves south of Scunthorpe village centre. The land allocated to Robert Clarke, some of which was subsequently developed by the Wells-Cole family and lying to the south of the village would appear to have been acquired by Winn. Other Robert Clarke land to the west would now seem to have been acquired by Parkinson. So from leading the development west, in 1890, with serviced plots the Wells-Cole family seem to have sold strategic land to "rivals" less than 20 years later and exited involvement in the area in 1918 for reasons stated above which would seem to be the untimely death of parents when children were minors. The Winns would also appear to have sold land in the west to Parkinson. The entire land parcel marked green for Winn in figure 40 is not, I suspect, the whole of Winn holdings in the area. However part of that land, the western most part of the eastern section, was later sold to the council for a proposed town hall which was never built and the vendor at that time were the trustees of Lord St. Oswald. This might be indicative of a move from active landowner to passive landowner. That is to say from a landowner willing to put in roads and sewers and market plots to a risk averse landowner, such as a trust, quite prepared to sit on land and wait for an offer. What we see with the Parkinson family is that they were extending their grip on future development which up till 1900 can only go westwards because Sheffield is blocking expansion to the north and Winn is controlling expansion in Frodingham to the south. What appears to happen circa 1900 is that the Sheffield family had a change in attitude to housing development⁷⁹. In figure 40 it can clearly be seen that a strategic decision has been made by them to connect Crosby to Scunthorpe. A significant amount has already been completed but also land has been parcelled up in a regular grid pattern indicating proposed future expansion. Further land to the west of that would seem to have been organised with future development in mind. Thus Parkinson now finds that he has competition from Sheffield. Land to the east of Crosby was Glebe land (marked 69 on figure 40 and top right) and had been/is being quarried for ironstone. With that Glebe land being also to the immediate north of Scunthorpe village centre, the original ironstone mines and works to the east and the quarrying on Parkinson and Winn land in Frodingham, to the south, then the "centre" of Scunthorpe village has become a salient protruding into the orefield and at the eastern periphery of development, a position it is still in today. Thus because of the needs of operations Scunthorpe town centre becomes less central as urban expansion takes place.

⁷⁹ This roughly coincides with the first talks with Lysaghts about land for a works indicating future demand.

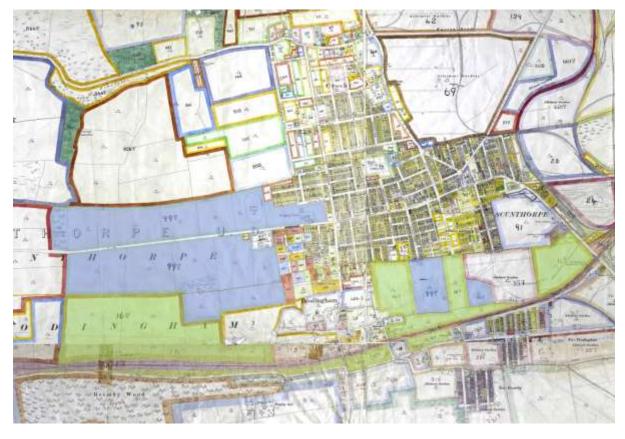


Figure 35 1910 land tax map showing Parkinson, solid blue and Winn, solid green. Maps courtesy of North Lincolnshire Library Services, used with permission.

To summarise here, there would appear to be a number of factors influencing urban development. Firstly the gradual, informal enclosure and the formal adoption and extension of this in full enclosure created a particular patchwork of field/close landholdings around villages. This would over time necessitate the creation of actors we call developers (sub-dividers) regardless of them potentially being initial owners or builders. Secondly large landowners can have a substantial effect (Sheffield) but, as we saw with mineral extraction, it takes a committed landowner with local involvement, which in turn depends on factors like age. Thirdly small to medium sized landowners exhibit a pattern, similar in some respects to the early iron manufacturers, that sees them build up holdings over time but also sees family members migrate to other areas of surplus production making these land assets much more likely to be traded in periods of financial pressure, opportunity or death when compared to the land assets of larger landowners, which are often placed in the hands of trusts which renders the land somewhat inert.

Gathering pace, development in the 1930's.

In this sub-section I want to examine an area to the west of the town centre in the critical growth period of the inter-war years to show the further evolution of actors in housing provision utilising research not previously attempted. This primarily involved obtaining title deed from the Land

Registry website. By utilising the 1910 land tax map for owners of underlying parcels and then visiting or utilising Google Streetview to assess likely groupings of house type it was possible to keep the number of title deeds required to a minimum. This area would seem to be developed at a time when control of development was moving from large landowners towards builder/developers and at a time of significant growth.

As we saw above, in the 1910 land valuation map, development opportunities to the west of Scunthorpe and Frodingham lay with two large landowners and a smaller piece around Frodingham church was held by various church interests. Development had begun in this area, on Parkinson land, at the time of the survey however significant growth here really begins in the 1930's. Although the developments to the west and north of the War Memorial Hospital⁸⁰ show diversity the central portion of the area shows significant conformity of house type seemingly as though it was developed by a single developer. If that were the case then this would seem to be the first cross "original" landowner development.

It would seem that the Vicar of Frodingham, Canon Rust, the Ecclesiastical Commissioners for England, and George William Phipps Winn & Granville Robert Croft⁸¹ pooled land interests around Frodingham church and started development, possibly from 1928, initially developing Vicarage Gardens specifically with the view of selling individual plots at high value for wealthy individuals to build larger houses on. The location near the church probably led to the decision on where to pitch the market but it may have been influenced by the earlier decision by Joseph Cliff (of Appleby-Frodingham Co.) to purchase land to the north for four large managers houses, built as two pairs of semi-detached dwellings. For whatever reason they sold other parts of the holding directly to builders and builder developers in 1934 with Clayton, Thompson, and Spavin benefiting.

Those sales may also have been triggered by what was happening to the north where the Parkinson's disposed of a significant amount of land in 1931The sellers in 1931 were Joseph A. Forster and William Gilliate Parkinson but I can't be sure how they are related. I note that W.G. Parkinson has two probates, one for settled land and one for the rest. It would seem reasonable to assume that they were acting as trustees in the sale of 1931. The sale of the final piece of land south of Doncaster Road, in 1935, was by a well-known Hull solicitor, Maurice V. Gosschalk. One gets the sense with the Parkinson land, then, that under R.J.H. Parkinson proceeds of land sales were at least in part being reinvested in acquiring further land in the path of development but that this practice is discontinued and that assets are then sheltered rather than actively traded or developed as a business in its own right.

You will see from my analysis of land sales in figure 36 that of the purchasers clearly G.H. Spavin acquired the largest section of both sales (Parkinson, & Winn et al). George Henry Spavin (1885-1963) became a builder and was called up, aged 30, in 1915 he spent just over two years in the army. He was later chairman then president of the local British Legion branch. His parents were very involved in Primitive Methodism in the area. From about 1928 he was on the Scunthorpe &

⁸⁰ War Memorial Hospital opened in 1927 and further expanded in 1932 and 1935. Land was a gift from Winn. ⁸¹ G.W.P. Winn is Rowland Winn's (1st Lord St. Oswald) fourth son. His elder brother, also Rowland (2nd Lord St. Oswald) died in 1919 and his other two elder brothers have died by this time. So other than the 3rd Lord St. Oswald (also Rowland) he is the senior Winn alive in the '30's. G.R. Croft is the son of the sister of the 1st Lord St. Oswald (so they are cousins) and would seem to be the agent at Nostell Priory. We might conclude that they are acting as either trustees or executors in this matter.

Frodingham U.D.C., as a Socialist/Labour member, and then on its successor Scunthorpe Borough Council, where he became mayor in 1939. He also had a long career on Lindsey County Council, eventually becoming an Alderman, where he was said to have been a vigorous defender of Scunthorpe's interests. We can see that he must have been a fairly driven and politically wellconnected individual. Not to cast aspersions of any wrongdoing on Spavin but it has to be said that being a builder/developer (or even someone with access to capital) on the council was not a hindrance to furthering your business career. There were other councillor/builder/developers in the interwar period such as Quibell, Jackson and others. It could be viewed that they were effectively enacting council policy but in a personal capacity.

At least two of Spavin's brothers were also builders and are possibly the "others" referred to in title abstracts, suggesting somewhat complex inter family transactions. At that time G.H. Spavin was in his mid-40's and he was clearly reinvesting surplus back into land. Spavin also seems to have sold off some or all (it is not clear) of his 1931 purchase to Scunthorpe based builders Bowins & Burkhill in 1933 & 34.

W. Pallister was a well-known Scunthorpe builder and contractor. Harold Lill Clayton was also a locally based builder who clearly rolls surpluses into more land purchases. Development on both the western most Clayton and Spavin purchases was halted by WWII. Vacant plots were used by the council for emergency housing in the post WW2 period. Edith Webster and Edwin Agard Webster (in that order on the title) may possibly be from Derbyshire but otherwise remain unknown. Parts of the development, Agard Avenue for example, have the appearance of being built to the same specification and plan whilst other areas have a more random selection of house types which is suggestive of the selling off of individual or small numbers of plots.

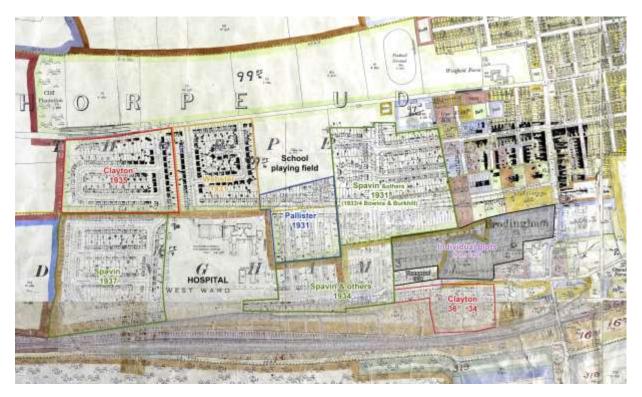


Figure 36 Future development overlaid on 1910 Land Tax map with developer names and dates of purchase. Land tax map curtesy of North Lincolnshire Library services. Overlay map ©Crown Copyright. Reproduced by permission of Ordnance Survey[®].

What study of this area shows is the emergence, in the 1930's, of a type of actor, the builder/developer, who is not a long term land holder but who is now buying land in order to make surplus in housing across others previous long-term land holdings. Whilst from aerial photographs or maps it is still possible to see the continuation of, perhaps, centuries of established boundaries, boundaries embedded with meaning, the experience on the ground is now different. As we saw with the land sales in Ashby, detailed above, those builder/developers will have to purchase increasingly large areas of land. This will reduce their numbers by consolidation in a similar pattern to that of the iron/steel industry.

Therefore the development of private housing and its actors was, not surprisingly, related to the availability and distribution of land. This developed from the pre-enclosure voluntary and ad hoc settlements, and subsequent enclosure settlements. Mostly development began in the closes and yards of existing properties. It can reasonably be assumed that people in trade by and large owning the closes are most able to divert surplus into further building within surplus land they have perhaps to the rear or side of their existing premises. Such developments come at a relatively low diversion of surplus for those involved. But when the surplus of this type of land was depleted the next availability of opportunity are the small, mostly individually owned, livestock fields of a few acres. These are now significantly larger than, say, the bit of land the butcher had behind his shop and they require the diversion of more substantial surplus to develop. At the same time they have potential to generate greater surplus. Thus people like the (fictional) butcher have to decide if they wish to make the leap to the next level and it is the next level because the available land is now mostly only available in larger portions. As those small fields are converted from production of surplus in agriculture to production of surplus in housing and consumed a further jump now takes place. That jump is to now larger parcels of land which are now a bit more distant from the original centre of the settlement. We begin to see the development of individuals who can sustain surplus production in housing development as a thing in its own right. We then hit a potential problem when the land of the smallholder becomes depleted and we now have to look at the large blocks of land held by landowners. The decision by large landholders as to what should happen to their surplus in land, as development pressure grows, can be affected by a number of factors and quite a lot of those factors can be seen in the development of greater Scunthorpe. I have detailed those above but essentially only Sheffield, of the larger aristocratic landowners, comes close to being and acting as a developer of speculative housing (as opposed to Winn's paternalistic New Frodingham) and to do so it would appear that he utilised, at least in part, surplus that arrived with his marriage and surpluses accrued by insurance companies⁸². Winn and Beauchamp play no large role after New Frodingham & New Brumby. Of the non-aristocratic families the Parkinson family manage to sustain two generations of involvement in serious development and after some initial development the Wells-Cole family are stymied by tragic personal circumstances leading to wholesale disposal.

I the last three chapters I have tried to point out the narratives and patterns that helped to form Scunthorpe. Firstly I have shown the importance of the evolving organisation of land for operations in agriculture in preparing, indirectly, the way for operations in ironstone and iron. For example, were it not for the technological innovation of warping Healey would not have sold ironstone bearing land. Had Charles Winn not bought that land and passed the running of it to his son who,

⁸² Identified from title deeds.

influenced by accumulated family debt, strove to extract greater surplus from it, it is arguable that there would not be a Scunthorpe as it exists today.

Secondly I showed in depth the narratives and origins of actors and their networked connection over space as they strove to develop operations in ironstone, iron, and later steel on the ironfield. But both these things are, as far as the construction of a place called Scunthorpe, not directly creating an urban Scunthorpe. They are about operations which create the need for labour which creates the need for a place.

Thirdly I attempt to uncover the narratives, actors, and motives for the expansion of housing stock that creates a place called Scunthorpe and give some explanations of why it was distributed in the way it was.

As yet we have not heard a narrative produced by an entity representing Scunthorpe. That is to say a direct narrative that says what Scunthorpe is. In the next chapter I will examine how and why Scunthorpe associated itself with the "Garden City" narrative at several points from 1910 up to the present day.

Chapter Six

The Garden City & Scunthorpe

The focus of this chapter is to examine the reasons behind the use of the "garden city" narrative by local government in Scunthorpe and the development of it as a public narrative for the town. This attempt to link the town with the "garden city" narrative has been, perhaps, the major narrative promoted by the town from the lead up to the amalgamation of the various local government bodies in 1919 and used in differing ways ever since. In particular I will be examining the relationship between this narrative and operations in iron & steel, as well as the internal inconstancies it displays.

In carrying out this research I have made extensive use of North Lincolnshire Library's collection of local newspapers, plans held at the North Lincolnshire Museum and Ministry files held at the National Archives in Kew. Please note that the files (HLG4/1956 1910-1923) & (HLG4/1957 1923-28) contain letters and reports in chronological order. There is no overall page numbering so researchers will need to follow the date sequence and description of extracts if they wish to corroborate them in the files. Further some of the loose large plans included in the files are undated and not easy to attribute to an accompanying letter or report.

In Appendix C I go into some considerable detail as to the build up to the garden city as a thing and the development of it in subsequent years. It is, perhaps, useful to state some highlights from that here.

First is the word "Garden". This word appears late in the day for Howard's plan and he makes very little of the word or the actual concept of gardening or gardens in his scheme. However the word is being associated with urban development by others before and after Howard's books. The "garden" word implies multiple narrative evocations linking back as far as the "Garden of Eden".

Secondly the main concern of Howard's scheme is to capture the uplift in value between agricultural land and developed land. This is attempted on two built versions based on his book but not replicated in that form to any degree after. Many parts of the plan are discarded when the plan moves to implementation.

Thirdly the purchase of land at a low value permitted the low density/higher space standards that come to be seen as the "visual narrative" that defines "Garden City".

Fourthly Howard's plan is one of continued reproduction of "Garden Cities" as a means of expansion and relies on a mobility of labour and employment opportunities that are fluid. There is no consideration of how to accommodate substantial operations of the scale we find in Manley.

Fifthly the words "Garden City" become an empty signifier from which all meaning is hollowed out to the point of being meaningless when separated from Howard's texts.

Today Scunthorpe has large areas of parkland and woodland within the former borough boundary. It is laid out for the most part in an open manner, it did have a respected and well-funded Parks Department, and there is a large park that is central and actually called Central Park, as Howard suggested for his "Garden City". It had also engaged the planner Patrick Abercrombie, a prominent planner loosely associated with the "Garden City" movement earlier in his career.

In contrast, though, there are no traces of Howard's economic model, indeed there are no large areas of private streets or estates owned and maintained by the residents or on their behalf by a management committee, but at its peak Scunthorpe did have a high proportion of council houses to private houses, which could be seen as a kind of community ownership, and it's major employer was also, at that time, publically owned.

As early as 1910, when amalgamation was being debated but still some way off, three members of the Scunthorpe (town) council attended a Government sponsored Town Planning conference in London. During the course of the visit the delegation made a brief visit to the Unwin designed Hampstead Garden Suburb, then four years old, and Councillor Read was impressed enough that on his return he had a similar scheme drawn up for the township of Scunthorpe (including portions of Frodingham and Crosby but not Brumby or Ashby). A committee was started to consider a town plan and in the 5/11/1910 edition of the Star there is a plan with the sub headline "How Scunthorpe Could Be Made a "Garden City"." With attendance at the planning conference only approved on 15/10/10 and a plan appearing in the Star by the 5/11/10 it is clear that this is not a detailed scheme. This is, however, the first mention of Scunthorpe and Garden City in the same context and one that was shared locally. Indeed it represents the first real airing of a public narrative about what Scunthorpe might be.

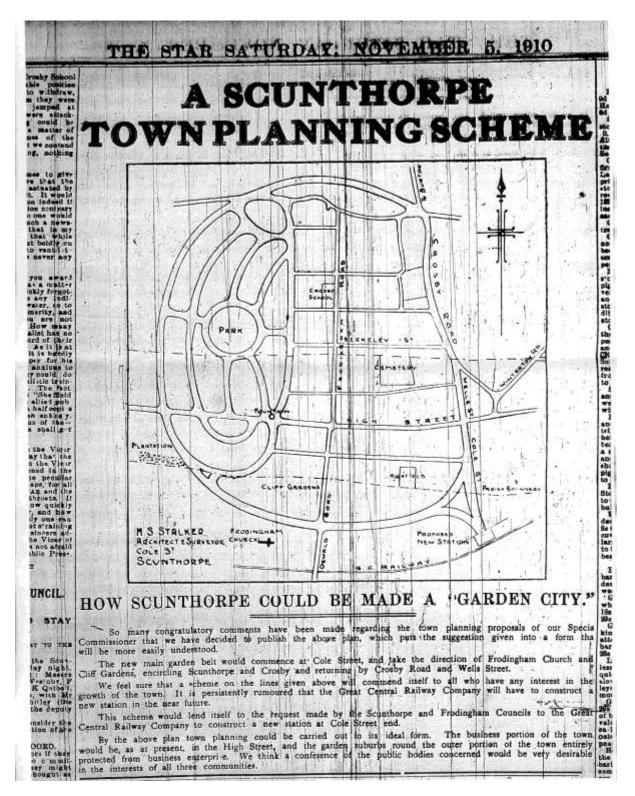


Figure 37 How Scunthorpe could be made a "Garden City". (A Scunthorpe Town Planning Scheme, How Scunthorpe could be made a Garden City 1910) North Lincolnshire Library Services, used with parmission.

The sketch scheme grafts on a series of wide curving roads to the west side of the existing town with further curving roads to the north and south embracing the old town. The southern arm links to a proposed new railway station. In the text it says:

"The business portion of the town would be, as at present, in the High Street, and the garden suburbs round the outer portion of the town entirely protected from business enterprise."

We see here that there is significant confusion over what a "Garden City" and a "Garden Suburb" actually are with the addition of a "Garden Suburb" being sufficient to turn things into a "Garden City".

In the report on the visit to the conference given in (The Star 1910), mainly taken, it appears, from an interview with Councillor Read, it is stated:

"We saw the garden suburb as it is shown in the Exhibition of garden cities at Letchworth, Bourneville (sic.) and Port Sunlight (sic.) in every conceivable detail, in plan, model and picture. In addition we saw examples of Town Planning as carried out on the continent and further afield and it was clearly demonstrated to us that Town Planning was not only practical but desirable."

We can see here that the concept of the "Garden City" as an independent, community owned entity set in its own farmland has faded (Read seems unaware of it) and we notice now that "Garden City/Suburb" is being used as a tool to drive "Town Planning". Indeed the year before (1909) the Garden City Association formally changed its title to the Garden Cities and Town Planning Association (having already created a company called Town Planning and Garden Cities Ltd. in the background) and first three new objectives of the association were listed as: *a) To promote Town Planning, b) To advise on, draw up schemes for, and promote Garden Cities, Garden Suburbs and Garden Villages, c) Housing and the improvement of its sanitation.* (Garden City and Town Planning Association Vol. IV No. 34, Aug 1909)⁸³

The councillors contrast the bustle of central London with the tranquillity of Hampstead "this lovely village". They note the wide streets and the cottages which were a "perfect study in red and white" (red plain tile roofs and white rendered walls) and contrast this with the "brick boxes with slate lids"⁸⁴ that formed the first expansion of Scunthorpe village. Read is then quoted as saying that the "Garden Suburb" is ideally suited to the rapidly developing area around Scunthorpe and Crosby because there are views to be had from the cliff over the Trent valley and that it would be best to "train the growth" of the town.

Although the Star gives prominence to this scheme and urges its further consideration we find another piece in the Star (Scunthorpe Councillors in London – how they enjoyed themselves 1910). This piece purports to give a running commentary on the three councillor's itinerary over the two day round trip to the town planning exhibition. It has such detail that presumably one of the three must have supplied them, yet all are made out to be buffoons to a degree. Thus the idea of the scheme is tangentially attacked with a passing line that what they did look at in Hampstead Garden Suburb was "...one street and saw several houses which were not the best possible examples for an

⁸³ Note the title of the association journal seems to have changed from The Garden City to Garden Cities and Town Planning with issue 26 in March of 1908.

⁸⁴ This is most probably from Councillor Quibell, a builder himself and a frequent user of the phrase which is attributed to both Ruskin and Morris.

industrial town like Scunthorpe..." without addressing why that might be the case. Having had a lot of fun at the expense of the councillors it concludes with the thought that at least they hadn't charged a lot in expenses and that was a good thing as the report they wrote was pretty poor. There is a sense here that anything as highfaluting as a "Garden City/Suburb" is inappropriate for an industrial town like Scunthorpe. There may well be unfounded fears (at least according to Unwin (1912)) that this was to be a costly enterprise. A recurrent theme in the discussions of amalgamation of the five villages is the profligacy of Scunthorpe, particularly from Frodingham which sees itself as something of a financially "tight ship". Despite the flaws in Read's proposals, and it is, after all, only a document to stimulate discussion, it nevertheless shows progressive thinking on behalf of the town itself. Read was a manufacturer of toffee and sweets so was independent of operations in iron & steel. If we recall that this was at a time when the population of the five villages in total has not yet reached 20,000 and amalgamation is still some time ahead then we can see the scale of the ambition which was to lead ten years later to the appointment of Patrick Abercrombie, then one of the leading advocates of Town Planning. Of course all councils had been encouraged by the 1909 Act to consider "town planning" in some way.

An article in the Grantham Journal (Housing wanted for 30,000 people. 1917) alerts us to a meeting of the LincoInshire Ironmasters Association (LIA)⁸⁵ and "*the local authorities at Scunthorpe*" the LIA stated there would be a requirement for homes for 30-40,000 people in "*a very few years*" and that a town planning scheme should be prepared at the expense of the LIA. At a second meeting in November the secretary of the LIA stated that it wanted to work in harmony with the local councils and that the LIA felt that if they were going to keep their men after the war they would need better living conditions which he goes on to describe in the LincoInshire Echo thus;

"They were anxious that any houses erected should be of a different class to the ordinary kind, with their unattractive and dull streets. Another 3,000 houses meant 15,000 additional population. It was not a matter of putting a large number of houses in one area, but to erect them in several different areas. The idea was to erect about 16 or 18 houses to the acre, and sites would have to be left in each area to provide bowling greens, institutes, churches and chapels, and all things the people needed." (Needs of the Ironstone District 1917)

This description would seem to be outlining "Neighbourhood planning", a theory credited as being developed in 1915 and so quite an advanced concept for the LIA to be suggesting. The Lancashire Evening Post records that the LIA put forward proposals for a "*New Town in Scunthorpe*" of 4,000 houses to the Yorkshire and East Midlands Demobilisation and Re-settlement Council (Proposed New Town 1919).

The LIA members did not act entirely in unison in the housing question. Four companies joined together to form the Frodingham Estate Company and the fifth company formed the Redbourn Village Society. The sixth company, John Lysaght's, also drew up proposals for housing to the east of its plant on Sheffield land.

The Hull Daily Mail reported a conference in Scunthorpe between the LIA, the Councils and the Housing Commissioner for Northern Counties (Ironstone Area Housing 1919) at which it is said that

⁸⁵ Formed in 1891 as a response to unionisation in the workforce.

the LIA had been trying for 18 months to get support from the government for its scheme without success. The scheme was generally liked except it required a through road from Grimsby to Doncaster. The LIA were generally against the provision of tied housing but was prepared to do so if necessary but this would mean providing houses for only its workers. The calculations it puts forward suggested that a working man's house would cost £700 to build and that a worker was not prepared to pay more than 10s per week in rent and that as a result the LIA would lose £10/year on every house they built (about £480 today). The report concluded that the LIA then offered the Council half the land for the scheme. Further economic setbacks in 1921 forced the abandonment of the plans with only a small number of houses completed, of which more detail follows below. This was not just a problem with Scunthorpe but was a general problem throughout the country. The difficulties in providing the ambitious "Homes for Heroes" plan were hampered by materials, skills and affordability problems.⁸⁶ There is clearly something of a cusp at this point. The LIA clearly want more housing and indeed a small amount was completed but equally they are keen to shift the burden of housing from a cost of production to a cost to the ratepayer. The impetus of operations in general is to reduce or eliminate costs for which no return was likely.

The crash in iron & steel in 1921, however, left the Ironmasters with a large landholding in Brumby, in what was the middle of the future "Scunthorpe". Frodingham Estate Company sold a small amount to the Council for Central Park, which eventually housed the new Civic Centre, kept sports facilities for its own employees adjoining Central Park and sold the rest to private builders. Armstrong quotes them as saying in 1936 "*the policy has been to keep up the value, particularly in certain areas, and so to keep the neighbourhoods more select.*" (1981, p 140) Assuming that the land sold to form Lincoln Gardens estate was the last to be sold then the Ironmasters took almost 30 years to dispose of their land. FEC seems to have had some sales policy for the subsequent development of the land but ultimately the development of Brumby is a reactive one. With the failure of the LIA's 1918-21 plan the LIA departed from housing provision and the mantle fell to the council and private developers.

Municipal development in Scunthorpe was held up by on/off negotiations between the five settlements over amalgamation, which was not settled till 1919 when amalgamation finally took place.

What, then, was the feeling about the town from its residents? For a snapshot of that feeling I reproduce below a school child's short essay from 1921. I have no details as to the context of this and it is rather pessimistic but nevertheless it paints a picture of the town as experienced and as it's a school essay we must note that the child is being asked to compare the Coketown of Dickens "Hard Times" with the Scunthorpe of 1921.

"Scunthorpe is, in my idea, a very monotonous town. Perhaps not quite so much so as Coketown for it has its differences and diversions but it is neither picturesque nor pretty, gay nor grand. It is not the kind of place one would chose to stay for a holiday. The town is rapidly growing but I think its late growth is on a very poor plan. The houses are small and poorly built and seem crowded together; these being the kind of houses that quickly become dirty and ill-cared-for.

⁸⁶ See: (Davenport-Hines 1990)

At one end of Scunthorpe stands the great iron & steel works, their tall chimneys towering in the sky like sentinels guarding the town at their feet. The station is also near here, all this tending to make this end of the place grimy, smoky and dull. The interior of the town is old. There is one main street around which all the others are clustered: streets with a medley of shops and small dwelling houses intermingled, all possessing dirty unpaved "ten-feet"⁸⁷ in which sometimes equally dirty dirty children live – I say live for they eat and play there and that consists the living for most of them. The other end of town is not so old and consequently slightly cleaner. Here most of the 'powers' of the town reside, although it is not the 'West end' but the north east!

Scunthorpe has a good sprinkling of public-houses and lodging-houses, the latter keeping the former in money and the former keeping the latter in beer, they work well together and are quite an institution in the town!

There are certain 'nooks' and 'crevices' in Scunthorpe where on might easily lose oneself. The streets here are not old but new and have been built with a small bay window at the front, they are all of the same length and a stranger could not possibly distinguish one from the other.

Whatever Scunthorpe is it is not a holiday resort; for it is dull, dirty and sleeping, and the weather, at all seasons seems to be out of season. It is altogether a most undesirable place where one could not live for a single year without being 'fed-up' with ones surroundings."⁸⁸

And here we begin to see the effect for Scunthorpe of two narrative themes that have develop over the years nationally. The first narrative is a negative view of our relationship with operations that are often referred to as "heavy industry", which form the bulk of operations in Scunthorpe, and the second is our relationship with "nature" i.e. that a version of Arcadia was the ideal to aim for. These are somewhat intertwined. I noted above that the houses of Hampstead Garden Suburb were considered "unsuitable" for a town like Scunthorpe, with the implication that they were too good for Scunthorpe, and now we see that children are recursively learning to compare the campaigning, hyper-realism of Dickens with their own reality and the implication here is that the comparison will not be favourable to Scunthorpe, which it isn't. Narratives that Scunthorpe local government produces, therefore, have to be considered against this background.

That essay, then, is a word picture of the Scunthorpe that the newly amalgamated council of Scunthorpe and Frodingham appointed Professor Patrick Abercrombie to masterplan. It's not a particularly pretty picture of the town and, of course, it's not an objective assessment but it's not perhaps untypical of industrial towns of the period.

⁸⁷ A ten-foot is a service road/path between the back gardens of two rows of terraced houses. So named for its (sometime) width.

⁸⁸ Essay discovered on "Scunthorpe Memories" Facebook page and dated 10/5/21

Abercrombie.

One might think that a council far sighted enough to hire a prominent "garden city" associated planner and the planner being prominent within his profession would make the achievement of a successful plan something of a certainty. However this was not so and in order to explain this clearly I need to go into some detail about the character of Abercrombie, the relationship between Abercrombie, the Council, the Ministry, and the needs of operations as well as the plan process itself. As much is later claimed for the Abercrombie era and used to link him and Scunthorpe to "Garden City" it is worth our time to examine just exactly what happened in the period of his engagement with Scunthorpe. We will also see the issues of trying to draft a plan against the evolving requirements of operations.

Patrick Abercrombie was originally articled as an architect. By 1907 he was lecturing at Liverpool University, assisted by Lord Leverhulme⁸⁹ who funded a chair in Civic Design, a journal and a research fellowship. Abercrombie became the fellow and edited the journal⁹⁰. Upon the retirement of the first incumbent he also took the chair. Dix tells us that:

"It was Abercrombie's ambition to produce students with a breadth of outlook and technical skills, adopting Geddes's fundamental triad of 'Place: Folk: Work' as the basis for his teaching." (1981, p 104).

Geddes took his triad from a French social scientist, Le Play, who used Lieu, Travail, Famille, for analysing society. Like others Abercrombie was concerned with the, as he saw it, positive effects of planning on health.

⁸⁹ Creator of Port Sunlight workers village. From 1888 and eventually numbering some 900 homes.

⁹⁰ The Town Planning Review.

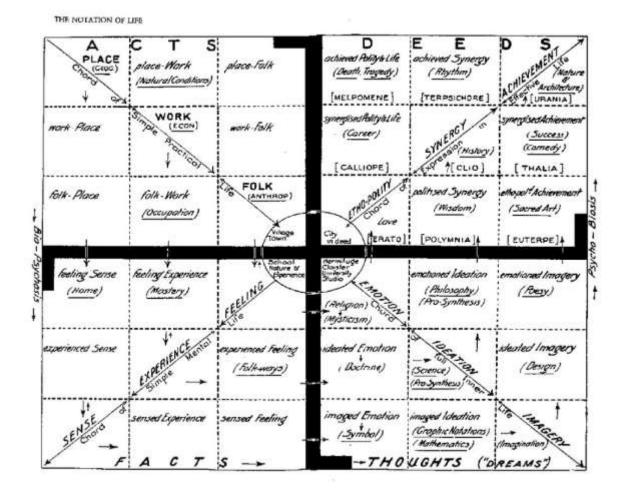


Figure 38 A rather unfortunately outlined diagram by Geddes relating to Place: Work: Folk (see upper left quadrant) (Defries 1928) The Notation of Life. Reproduced under fair use copyright exemption.

Throughout his long career Abercrombie planned many cities in the UK most of which we know about in detail but of his work with the Scunthorpe and Frodingham U.D.C. we have no published sources and neither are there surviving records in Abercrombie's own archive or that of his partner in the venture T.H. Johnson⁹¹. So it has been necessary for me to reconstruct and interpret the involvement from the records of the Ministry of Health and a small number of plans he published in relation to particular aspects of the scheme with universal relevance, such as highways design and playground provision.

Early involvement with Scunthorpe, and steel.

Following winning the 1914 competition for a Dublin plan Abercrombie is usually noted for his 1920 work on Dormanstown, an industrial housing scheme for Dorman Long (iron and steel producers) near Middlesbrough. In that same year he started the Doncaster regional plan. I had considered that

⁹¹ From Doncaster and who also worked with Abercrombie on the Doncaster regional plan.

working for a steel company and working on the (neighbouring) Doncaster regional plan was the link for bringing Abercrombie to the notice of the S & F UDC. However in researching the minutes of the preceding Brumby and Frodingham U.D.C.⁹² I found this entry:

"It was stated by the surveyor that he had had interviews with the representatives of the Appleby Co. and their advisors, Professor Abercrombie and Beetham with reference to their Town Planning Scheme, that they proposed to erect no more than 12 houses to the acre, each house to have three bedrooms and a bathroom and that the land that they acquired was 26 ½ acres in extent and was situated in Brumby near the Cemetery.

Resolved to recommend the council to give every facility towards the carrying out of the housing scheme of the Appleby Co., the Redbourne (sic) Hill and any other firms, but the committee advised that in passing such schemes they should suggest that such schemes should provide for the erection of not more than 8 houses per acre so as to give a piece of garden to each house but the committee realise, however, that this might not be possible in every case." (6th Dec. 1917 p383)

This clearly puts Abercrombie in Scunthorpe several years earlier than usually imagined. Hartley says "They (Brumby and Frodingham UDC) *exploited the Ironmaster's desire for excellent town planning by insisting on quality and, like the Ironmasters, consulting experts like Abercrombie, and using the results during 1918 to delay progress.*" (1969, p 221)

The Minute Book entry is interesting in other ways too. The Frodingham Estate Company land purchase was, however, not "near the cemetery". The Redbourn Hill Iron and Coal Co., which decided to plough its own furrow with regard to housing, did hold land and build in that area. This would seem to suggest that either Abercrombie and Beetham⁹³ were master planning for both companies or that they were each working separately for one of the two groupings involved in Brumby. Analysis of a 1923 plan for the Frodingham Estate Company (held in the Ministry files at Kew) shows a partial layout that fits with a full town plan in Town Planning Review journal of the same year. This might suggest that if Abercrombie was not working for both then he was probably working for the Frodingham Estate Co. A point mentioned several times in correspondence from the Scunthorpe and Frodingham U.D.C. to the Ministry is Abercrombie's conflict of interests between the Council and his other, unspecified, clients. It seems a reasonable assumption that these other clients were one or both of these steel company housing offshoots. In the official history of the Ministry of Munitions we find this interesting statement:

"In two instances direct grants were made unconditionally to firms. In this way Dorman Long and Co. received 25% of the cost of their scheme for 300 houses at Redcar as a grant and the remainder on loan at 1% above the bank rate. A small scheme for 15 houses undertaken by the Appleby Iron Co. Ltd. at Scunthorpe also received a grant from the Ministry of 20% of the expenditure." (HMSO 2012 reprint, p 9)

⁹² Held at the North Lincolnshire Archives in Grimsby.

⁹³ I have not been able to identify Beetham.

These are not specifically dated but would be circa 1918 judging from the flow of the text. One can make the assumption that the Redcar scheme is Dormanstown, which Abercrombie collaborated on, and it would seem that the 15 houses mentioned for Appleby could have been those mentioned in the minutes quoted above. Also of note in the minutes is that Brumby and Frodingham U.D.C. is the one proposing the lower density. We can't blame Abercrombie for the higher figure necessarily as he might have been under his client's instructions however Brumby and Frodingham U.D.C. is usually painted as the more regressive of the then two U.D.C.s and cautious with its spending yet seems generous here.

The deed of an area of land sold to local builders by the Redbourn Hill Iron & Coal Co. in 1935 reveals that the Earl Beauchamp and family sold their large acreage in Brumby en bloc to the steel companies in August 1919. Those companies are listed as: "… The Appleby Iron Co. Ltd., The Frodingham Iron & Steel Co. Ltd. John Lysaght Ltd., The North Lincolnshire Iron Co. Ltd. and John Brown & Co. Ltd. of the third part The Redbourn Hill Iron & Coal Co. Ltd. of the fourth part and the Frodingham Estate Co. Ltd. ... of the fifth part."

Beauchamp's decision to sell, apart from the fact that the land was a long way from their main holding in Worcestershire, could have been motivated by the fact that it was already mortgaged to his stepmother, the dowager countess. He may also have been motivated to sell given he had been First Commissioner of Works for the Asquith government from 1914-1919, chair of the Central Land and Housing Council in 1913 and seen as a supporter of progressive Liberal policies towards improved workers housing, thus he may have been supportive of the steel companies initial goal of providing a workers "garden city" in Brumby.

Thus it is somewhat unclear exactly how Abercrombie came to Scunthorpe. To pursue the story further we now need to review the Local Board/Ministry of Health planning files held at Kew, together with additional information from Council minutes and other sources in order to gain a better understanding of the relationship between the term "garden city" and Scunthorpe.

Early planning efforts before Abercrombie.

The surviving planning files relating to Scunthorpe for the years c1910-1930 cover both the early involvement in putative planning and the involvement of Abercrombie at the end of which the town was structured for growth in a way that would not change fundamentally for decades. As such they are able to throw a light on how planning narratives collide with real world needs of operations. They show that however appealing a "garden city" plan was to individual councillors and planners if that plan didn't align with the requirements of operations in iron/steel then it didn't succeed.

Perhaps the first thing to say is that throughout these extensive files one phrase is conspicuously absent and that is "garden city". The closest we get to it is a file note is signed by Raymond Unwin. We know, as mentioned in appendix c, that he was another prominent advocate of "garden city" planning but that this was very much his own interpretation of the narrative. Returning to Councillor Read, in 1910 he wrote to the Local Government Board suggesting a combined scheme for Scunthorpe, Frodingham, Brumby and Crosby (but not Ashby). He was told that due to the un-

amalgamated nature of Local Government in these settlements⁹⁴ no joint scheme can be made under the 1909 Act. So I think it is worth sketching out some of the interactions leading up to amalgamation.

In January 1912 Scunthorpe wrote again regarding creating a joint plan and was told that only one Local Authority can submit a plan but that there could be a joint committee with others to determine that plan. In March Scunthorpe convened an informal meeting with the other authorities and local landowners after which it requested that a Board expert come and explain things to a similar gathering and this was agreed to. The expert's report of April was quite scathing and he writes that the majority of the questions were about who pays for the expense, what is liable for compensation and betterment etc. Stating further that there was "*no enthusiasm shown in favour of a scheme*" and "*There was also an obvious attempt on the part of one or two individuals to convey the impression that compensation payable would be substantial*". Worries were also expressed that once an area was fixed for the scheme then development might take place just outside the area where costs would be lower and that those within the area would have increased costs. The Board representative regarded the conference as a "*failure*" and stated that Crosby was "*sympathetic*" while Brumby & Frodingham were "*hostile*". Concluding that there was "*considerable jealousy and little, if any, public spirit*" he nonetheless stated that a scheme would be "*desirable*".

In August of 1912 the Board wrote to Scunthorpe regarding the desirability of a scheme and this was prompted by the County Medical Officers report for the previous year in which he recommended the desirability of a scheme that should run from Roxby-cum-Risby in the North to Ashby in the South. He was concerned that there are no open spaces or gardens of any size being built to act as *"lungs"* in the new housing areas. Here again we see the link with planning, health and gardens. His report also stated that Ashby had wanted to amalgamate with Brumby and Frodingham as early as 1894, that Scunthorpe proposed a merger with Brumby & Frodingham, and Crosby in 1903 but that Glanford RDC strongly opposed it. In 1909 there was an inquiry into the formation of a joint sewerage district between Scunthorpe and Crosby. In 1912 Scunthorpe applied to sell gas to Ashby, which would mean pipes running through Brumby and Frodingham, who duly opposed it seeing it as a *"lever towards amalgamation of the two districts"*.

In January of 1913 he referred to the Bishop of Lincoln writing advocating the amalgamation of the five towns. His report concluded that the Board think the "place is expanding so rapidly that town planning is an immediate necessity".

In Jan 1913 George Pepler⁹⁵ wrote to the Board that he had attended a conference with Scunthorpe, Crosby and Frodingham (no mention of Ashby or Roxby) and stated that things are *"looking more hopeful"* for amalgamation. Councillor Read *"who is most keen about it"* is noted as being back on the (Scunthorpe) Council.

By November it was resolved by Scunthorpe, Frodingham and Glanford that Scunthorpe would take the preliminary steps for a Town Planning Scheme but by May 1914 the clerk to Scunthorpe wrote to

⁹⁴ See Figure 29 for a timeline of local government organisation.

⁹⁵ Of Pepler & Allen, Architects and Surveyors. This is the same George Pepler who went on to work for the Ministry of Health from 1919 as Chief Planning Inspector and continues in a prominent role till 1946 (Dix 1981) and who has a keen involvement in future correspondence with the UDC and Abercrombie.

the board informing them that amalgamation was again on the agenda and that as such nothing would happen with a Town Planning scheme. He concluded with this paragraph which benefits from three large exclamation marks and underlining, in the margin, from a board official: "I have always had grave doubts of the expediency of my Council undertaking the Scheme at all having regard to the fact that all the onus and costs of the Scheme would fall upon them and the main benefit would be derived from (sic) Authorities at present outside their area." Board noted that they thought the "Clerk's antagonism has killed the Town Planning movement here." They didn't, however, see amalgamation as being a hindrance to the preparation of a Town Planning scheme, perhaps somewhat naively, and they again noted that a Town Planning scheme was an "immediate necessity" and there was "strong jealousy between Frodingham and Scunthorpe".

Departmental discussion continued but in October of 1914 there was a report on the proposed extension of the urban district area composed by E.J. Silcock, Civil Engineer. He stated that "*it must be perfectly obvious to even the casual observer that such an area is most inconvenient to administer*". Nothing much may have been happening in Brumby & Frodingham but Scunthorpe was "*overflowing*" into Crosby⁹⁶. Ashby was growing and in need of a water supply and if not included in the enlarged area could be "*a menace to the health and development of districts to the north*". His suggested boundary for the new U.D.C. is thus "*a very large area*" which could be administered more economically. Note here that what was gaining traction was the narrative that amalgamation could produce administrational economies of scale. Whilst initially ironmasters were keen to have multiple authorities, their workings were now spread over more than one authority and their growing workforce was similarly scattered. They too had begun to see potential benefits in a single authority.

Amalgamation: Scunthorpe councillors seize control.

There are no correspondence in the files for the duration of WW1 and the next papers in the file date from 1920. By then it was the Ministry of Health rather than Local Government Board with whom the correspondence was. Amalgamation of the district took place in 1919. From north to south; Crosby, Scunthorpe, Frodingham, Brumby and Ashby now form Scunthorpe and Frodingham U.D.C. The most westerly and sparsely populated parts of the former entities were ceded to Glanford Rural District council despite Scunthorpe's objections.

Just why there was such hostility between Frodingham and Scunthorpe is not that clear. Pocock tells us that all three major landowners were against amalgamation when Scunthorpe first proposed it in 1903 (1970). The increased output of steel required for the war effort, which resulted in the influx of new workers requiring homes, probably tipped the balance with some councillors. Certainly one Frodingham councillor credits this reason for changing his mind on amalgamation.⁹⁷

Nevertheless by 1918 the major landowners, the Ironmasters and the councils were minded to adopt some form of amalgamation with Frodingham insisting that it was entering the negotiations as equals. This may seem something of a trivial point but it isn't. The subsequent tussle over the

⁹⁶ This must refer to the decision taken by the Sheffield family sometime around 1900 to develop the area between the Scunthorpe boundary and Crosby village.

⁹⁷ Howden Wright, (Hull Daily Mail 1919)

naming of the settlement, which begins here, is crucial to the future negative narrative of the town. It is documented that Frodingham was given the assurance that the name of the new district would be Frodingham or that the name would be given serious consideration. But at the enquiry into amalgamation a grouping which called itself The Scunthorpe Citizens League, which according to Pocock,⁹⁸ was chaired by Rev. T. Broughton, the Church of England vicar of Scunthorpe and a councillor, protested and thus, as a compromise, the name of the authority became Scunthorpe and Frodingham U.D.C.. But from reading the report of a meeting of the new Scunthorpe and Frodingham U.D.C. in the Hull Daily Mail (What's in a Name 1919) it is clear the resentment simmered on. It reports a proposal at that council meeting to change the name of the new authority to Frodingham. At that post amalgamation meeting we see narratives drawn in economic terms deployed by both sides; Frodingham, it was said, was nationally and internationally known through the export of both steel⁹⁹ and ironstone, further the district was known as the Frodingham Ironstone District. On the other hand Scunthorpe was the post town and there were many more businesses using that name in their postal address and they would have to change their entire stationery etc. Several councillors felt that there has been too much discord and that any change would create even more. The Reverend T. Broughton said he was in favour of "Scunthorpe" and "would not let Scunthorpe play second fiddle to Frodingham" and stated that if the resolution were carried he would fight it "elsewhere" and in any case previous to the amalgamation Frodingham had allowed itself to be named second in its U.D.C. with Brumby. It has to be said that it is something of a mystery why it was Brumby & Frodingham and not Frodingham & Brumby as at that time Brumby, although larger in area, was practically empty of people. In the press of the time, what turned into Scunthorpe Borough is often referred to as "the Ironstone district" and in the press report of councillor Read's 1910 "garden city" proposal Scunthorpe is also called Ironstone City (although that is the only instance of that I have seen). With all the civic hubris and bluster going on in this period it seems never to have been seriously considered that the new district could have had a compromise new name other than by "Rambler", writer of the N. Lincolnshire Notebook column, who suggests tongue in cheek "Scunfrod" (1919). It is difficult to place oneself in the minds of the councillors of that time but the unfortunate four letter sequence in Scunthorpe must have been apparent to them then. But their choice, seemingly on trivial postal and stationery issues, had long term negative consequences as witnessed by the song lyrics at the opening of this thesis.

So here we see that amalgamation is not a coming together for the common good but a highly contested and partisan affair forced onto councillors largely by the requirements of operations in iron & steel for a single authority to deal with and named and controlled by the place with the largest number of smaller business operations i.e. Scunthorpe.

A plan is needed.

Returning to planning matters, following concerns from Unwin at the Ministry of Health that there were several large housing schemes in or near construction and yet there was no overall town plan,

⁹⁸ In Armstrong (1981, p 66)

⁹⁹ The products of the Frodingham Iron & Steel Co. were actually stamped "Frodingham" and distributed throughout the world.

a meeting was held with Henderson (Chair of the UDC) and others. Henderson is quoted as having said that he thought the town would have a final population of 50,000 and that the ironstone would last 50 years¹⁰⁰. The ministry asked if ore could then be imported to keep steelmaking viable and Henderson thought it could be, he favoured a port to the north or north-east (Humber) rather than the Trent side (west). The extraordinary suggestion was made that it might be better to "*favour*" the surrounding agricultural villages so that, in the event of a complete steel shutdown, workers could return to agriculture more easily. This shows that the narrative with some in the Ministry was that Scunthorpe was really only a temporary phenomenon. It seems a somewhat fanciful suggestion that after decades of industrial activity a labour force could somehow be reabsorbed into agricultural work. There was no sense here that anything permanent had been created, no sense that the surpluses created have any permanence or are integrated into a wider economic system.

It is at that meeting that the first mention of moving the "administrative centre" occurred and a site close to the intersection of the railway line and the main north south arterial road was identified. It was suggested that this would be the "geometric centre of the final town"¹⁰¹. The report of that meeting has a note by Unwin which states "It appears that as far as our housing schemes have gone there is nothing which will interfere with proper disposition of the town but think that a Town Planning scheme is very desirable".

Abercrombie and his plan.

The UDC decided to proceed with a Town Planning scheme and they advertised for a planner. It is not known how many responses they had but they decided to hire the firm of Abercrombie and Johnson. Abercrombie was at that time in partnership with Henry Johnson, who was based in Doncaster, to prepare a regional plan for the greater Doncaster area covering 169 square miles to the west of Scunthorpe. The Doncaster plan was published in 1922 and was positively glowing with praise for the region¹⁰².

Thus it would have seemed that Abercrombie was both professionally qualified, had experience with heavy industry and steelmaking as well as Ironmasters and their workforce and was familiar with the area. Further one can assume that having a teaching role in the subject he might have had good lines of communication with the Ministry and be on top of the technical requirements of the Acts of Parliament pertaining to the preparation and submission of a town plan. Indeed Mr. Pepler, of the Ministry of Health and who also appears in the files in connection with the Scunthorpe plan, gets a vote of thanks within the Doncaster plan "for his continued help, advice and criticism, the value of which is impossible to overestimate." (1922, p 4)

¹⁰⁰ Mining of ore didn't actually cease until the early 1980's although it had been supplemented by other UK and foreign sourced ore for some time before that and today the plant runs entirely on foreign sourced ore shipped to the port of Immingham, to the north east of Scunthorpe on the Humber, and thence by rail.

¹⁰¹ This must have been wrong even then as expansion to the north was by then blocked by the Normanby Park steelworks and the district already stretched to Ashby in the south so the geometric centre of the town would then have been further to the south.

¹⁰² Take this paragraph on page 4 for example; "The authors must be pardoned if they appear during the course of this Report to view the Region with enthusiasm. The picture of the future which they have endeavoured to call up is indeed one to excite this feeling, while it can in no sense be accused of speculative or misty idealism".

There are several things of note in the Doncaster plan. They write:

"On the other hand it may happen that it will be found more economical to bring Steel Works near to the Coal Pits rather than take the coal to the ironstone mines, in which case a system of mechanical stowage of the waste product from the steel furnaces could be devised by which the underground workings of the collieries could be filled up after the coal was extracted." (Abercrombie 1922, p 12)

Further on they write "As a centre for the establishment of Iron, Steel, or Engineering Works, the district presents many and varied advantages..." (1922, p 15) So whilst at the same time as they were engaged by Scunthorpe UDC to develop a town plan they appear to have advocated the wholesale removal of iron and steel making to the Doncaster region!¹⁰³

In writing about the historic basis of the town of Doncaster the report states that it is "*no upstart town like Middlesbrough*" (1922, p 7). Of course Abercrombie has just been working near Middlesbrough and there are significant commonalities between Middlesbrough and Scunthorpe to make you wonder if he also thought of Scunthorpe as an "upstart". I assume the word "upstart" is a derogatory term within the context of its use here and is a further example of the negative narratives that are given to industrial towns.

A further thing to note now is their attitude to "*low lying land*", of which there is a fair proportion in the Doncaster district, because it will become important to us when we later consider the promotion of the future "Lincolnshire Lakes" Scunthorpe expansion scheme. On page 10 they write "...it will become difficult to drain even for agricultural uses, and impossible to render healthy for residential purposes." Also on page 13 "From this Survey it would probably appear that in certain villages in the flood lands such terrible diseases as Diphtheria may be said to be endemic." It is clear from these extracts and the report in general that they believe "low lying" land is inherently unhealthy.

Abercrombie and Johnson envisaged a large area for the Scunthorpe Town Plan from the start. Scunthorpe UDC wrote to the Ministry, on the advice of Abercrombie, to ask if they could use 6" to the mile maps rather than the 24.344" to the mile stated in the regulations as the end result would be "quite unwieldy for the purposes of handy reference". They received a reply that "if the area can be accurately defined" at such a scale then the Ministry are "prepared to consider the application". This ambiguous answer dogged the submission for years and the subsequent costs were partly why the council and Abercrombie parted ways¹⁰⁴.

¹⁰³ In (Abercrombie 1922, p 18) there is mention of *"the steel-making and iron-smelting district of Frodingham"* but no mention of the word Scunthorpe, which would seem to confirm the idea that at the time Frodingham was the more widely recognisable name than Scunthorpe.

¹⁰⁴ I should just take time here to consider mapmaking in the 1920's. What the Ministry required were printed Ordnance Survey sheets onto which proposals were first hand drawn in pencil and, once approved by the council, then inked in by hand. Copies of the plan must be made on Ordnance sheets too and thus required the same laborious process to be gone through again making map production a slow, tedious and expensive business (and remembering here that it seems Abercrombie was liable for the cost of the maps in the first stage!). There existed a process of duplication usually referred to in the files as a "photo print" and it seems the Ministry were supplied with a number of these plans but they complain bitterly about them as they are flimsy and easily torn or creased, doubtless they were very much cheaper to produce.

By February 1921 a resolution adopting the Town Plan was passed, Map no.1 was complete and the scheme was advertised but the Ministry quickly identified errors in the procedure and the map stating that it is "*very badly drawn*". A revised map was sent. The area of the plan was a rather large 16,540 acres.

The geology and geography of the area, as previously described, largely dictated the logic of the plan area. Although this area contained slightly more land area outside the UDC area than in it, it made sense and the Ministry had seemed to think a large area was required. If one can determine a single aspect of Abercrombie's work that was of ultimate benefit to the UDC and its subsequent manifestations it was surely the vision to include this wider area of control in the plan. It seemed clear that the UDC must control development as far west as the Trent and in so doing it was this floodplain that accounts for the majority of the included land outside the UDC. Lindsey County Council were cautiously in favour of the area but Glanford Rural District Council, under whose remit the majority of the additional land lay, was not at all happy. With Glanford it was all down to potential costs. They feared that road improvements and construction would leave them heavily out of pocket and might generate compensation claims.

Aspects of Abercrombie's initial plan.

Moving on from the context we should now examine this initial plan, Abercrombie's narrative for Scunthorpe, and its components to see what he actually suggested, so as to be able to compare it with what the future North Lincolnshire Council will later claim for it. Accompanying the Town Plan Report is a list of 15 drawings of which I consider only one may still exist¹⁰⁵.

Abercrombie's written plan¹⁰⁶ had proposals laid out in 10 bullet points thus:

1 New direct road connection with Keadby Bridge¹⁰⁷.

2 A new railway station.

3 A Civic Centre.

4 A main internal road plan including a Ring Road and a main north-south backbone.

5 A districting (or zoning) plan.

¹⁰⁵ North Lincolnshire Museum collection. A number of printed plans survive in the Ministry of Health files but it is not always clear to which correspondence, if any, they should be attached. Further they are all of the dreaded "*photo print*" type and badly damaged and difficult to fold flat for photography. For example there is a beautifully drawn central area plan that may have been drawn by Abercrombie's own hand but is unsigned and undated.

¹⁰⁶ A copy of this can be found at the North East Lincolnshire Archives in the S.& F. U.D.C. minutes for 3/3/1921 and also in (HLG4/1956 1910-1923) dated 9/6/1921.

¹⁰⁷ The only crossing point of the Trent for some distance.

6 A park system.

7 A central stadium.

8 A racecourse.

9 A scheme for separating "light industries" from "heavy trades".

10 A new abattoir.

Although the plan identifies the requirements, flows and the pressures of the road system through the area to Keadby Bridge it fails to come up with the straightforward solution that exists today in Queensway/Kingsway which is first shown on plans dated 1930 and is the work of the council's in house planner who superseded Abercrombie and Johnson.

The existing railway station at the time was to the extreme east, very close to the Frodingham Ironworks, hence the requirement for a more passenger friendly station placed closer to homes. Indeed you may remember that a similar proposal was made for a station in that location in the 1910 "Garden City" plan. No purpose built offices existed for the UDC and the plan proposes a civic centre in the area suggested at the meeting held before the appointment of Town Planners as mentioned above.

Points 5 & 9, related to the classifications used on the various plans and statements, caused some confusion as we will see. The classification of light and heavy industries is not quite what it seems as at one point it is said that a rolling mill could be classified as light industry provided it was powered by electricity. In other words it seems to be how much smoke an operation might make that counts towards its classification.

I note in appendix c the differing interpretation of the role of "parks" in the "Garden City" prehistory and we will see that claims are later made for Abercrombie and parks so it is worth looking at what was actually proposed. Discussion about the plans for the provision of parks never really features in future Ministry of Health or council exchanges except on technical matters such as did cemeteries count as "open space" and have they been coloured in correctly on the plan, despite Abercrombie going into some significant detail in his report, such as how many football pitches are likely to be needed. Everyone seemed to accept the need for them and, indeed, modern Scunthorpe has a significant park provision. Here is what the report says:

"It is now generally recognised that there must be a systematic provision of open spaces acquired for different types of recreation and disposed in such a way that they are accessible to those who use them. It is no longer sufficient to buy up large houses and their gardens or parks as they come onto the market, without regard to whether they are the best for their purposes¹⁰⁸.

¹⁰⁸ Interestingly this is just what Scunthorpe Borough Council eventually did when it leased Normanby Hall from the Sheffield family in 1964 for 99 years.

Especially is Scunthorpe in need of this adequate provision of recreative facilities seeing that the majority of its working population pursue an arduous and exacting form of labour and require healthy relaxation as a necessary corrective.

Further, the conformation of the area and unusual disposition of the different districts, already pointed out under Section III, make it absolutely necessary to work out well in advance where the main park space is to be placed, seeing that the Residential Area is not capable of expansion in any direction, as is the case in most inland towns.

The area of open spaces in relation to population and the area of the town is usually reckoned as one acre to every 250 of the population (or 4 acres per 1000) or 1/10 the area. The former on the basis of 150,000 would give 600 acres.

The latter (taking the whole town area) would give 796.

The area shown is about 850 acres of which 500 acres are irregular slopes unsuitable for building and 300 for playing fields and 50 acres Playground. This figure should in no way be looked upon as excessive.

(A). General Parks.

For the reasons given it has been decided to locate the principal open spaces on and below the great slope which forms so distinctive a feature of the Landscape – here they occupy ground not suited or easily adapted for building and free the more level plateau for residential purposes. The Slope with its light soil diversified surface and wild vegetation is capable of the most attractive treatment, which should be strictly in accord with its natural character.

In addition to the Slope Park, a narrow strip, using certain existing plantations, has been shown as a screen between the Factory area and the Residential area on the Eastern side of the town.

Though feeling some diffidence about making the suggestion, as a logical outcome of the policy of placing the Parks on the Slope we suggest that the land at present scheduled as Sheffield Park, might be exchanged for some of the adjoining slope and the Sheffield Park Site freed for building land.¹⁰⁹

Key to note in the above is that the "slope park" is making use of land that Abercrombie considers might be otherwise unable to be built on. By dent of geology this land happens to be a continuous strip. It is not Abercrombie's desire to have a continuous park or connected series of parks through the town, as will later be claimed for him. These parks are seen as "recreative facilities" and they are required because of the arduous work the population do and thus they "require healthy relaxation"

¹⁰⁹ Not implemented.

as a necessary corrective." This seems a rather spurious comment as surely those engaged in less arduous work also use parks? Is this another negative comment about workers in heavy industry?

As a separate thing, sports facilities were required and so too were children's playgrounds, this latter to be provided within a ¼ mile radius spread throughout the town.¹¹⁰

As far as the racecourse goes it has been suggested to me, by a local historian, that Sir Berkley Sheffield was behind the suggestion, which seems plausible as he is believed to have taken an interest in such things, but I have yet to find any documentary evidence. No racecourse was ever built.

Densities mentioned in the report are interesting as an average density suggested is ten houses per acre¹¹¹. Further an available area of 3,000 acres is suggested as is an average occupancy of five per dwelling. Thus a potential population of 150,000 is suggested. This differs significantly from the built situation today in that considerably more land, including some of the "low lying" land, has been built on and yet the population is roughly half that suggested. I think this point is worth considering when claims are made in more recent times about the "Abercrombie legacy" and the kind of density he envisaged in the 1920's. Whilst undoubtedly he envisaged a less dense town than one which might have been constructed utilising "by-law" housing he did not envisage one with the low density it now has.

Struggles with the plan and its delays.

Moving on from the initial plan let us now consider how things progressed from there so that we can better understand why this was not implemented and in particular how the requirements of operations impacted on it.

On 29th June 1921 the Ministry of Health's Benson Greenall held an enquiry into the plan. The area given for the plan is 16,554a with 7,961a being inside the UD and 8,394a in Glanford and 189a in Roxby cum Risby. It emerged that as long as Glanford RDC did not incur costs they have nothing constructive to add. The small scale of the maps and the photo print nature were again remarked on. Regional communications were considered important and with some foresight, given the future importance of the port at Immingham, the inspector considered a joint scheme with the port might be useful. No real explanation was given as to why it was needed then or how a joint plan might work and the subject never cropped up again. The periodic question of better links with Hull raised its head as speculation about a tunnel or, more likely, an improved ferry was at a high point. The discussions on the links to Hull really impact on the plan in terms of the viability of routing traffic from the Trent crossing to the north round Scunthorpe and north out of Scunthorpe and thus crossing and sterilising¹¹² part of the ironstone beds.

From the 1921 enquiry plan it can be seen that connectivity and control are at the heart of the scheme. The inspector recommended approval of the scheme and in August the Minister approved

¹¹⁰ See Fig.57

¹¹¹ Remember in the earlier mention of Abercrombie working in Scunthorpe he was said to be suggesting 12 houses per acre and the council were proposing eight.

¹¹² Sterilizing – building on or near the orefield making extraction impossible or impractical for economic or other reasons.

the resolution to adopt the plan but not in respect of the developed land. This was a technical point about the inclusion or not of land already developed. This, one would imagine, was something that Abercrombie and Johnson should have known about and becomes yet another in a long list of technical issues that continue to trouble the relationship with the Ministry. The Minister also wanted the maps drawn to a larger scale so that the detail can be more clearly seen.

Thus from resolving to produce a plan in December 1920 the council had a plan drawn up and approval to proceed with it by August 1921, so far so good. Their next step was to prepare the Preliminary Statement and redraw the map. There was now some uncertainty for landowners and developers who might wish to erect buildings that may later need to be demolished as the plan was implemented.

In January of 1923 Abercrombie finally sent the Ministry Map no.2 and the Preliminary Statement. In February the Ministry responded by saying the map was only a paper copy, they can't tell how the plan conflicts, if at all, with what has been built and that it should have been on ordnance sheets. An internal memo by the Ministry found a number of contradictions, possible errors (the inclusion of what seem like estate roads) etc. in the plan they have.

In May 1923 there is a note that the Ministry talked to Abercrombie and he had said the council were "so difficult" and he had thought of "throwing up the job". Following a visit to Scunthorpe by the Ministry it was pointed out that due to the rapid growth the ordnance sheets were so out of date as to be useless and needed to be urgently redrawn, which would be a very big task. The Ministry deferred until September.

In July Henderson, chair of the Town Planning committee and MD of Frodingham Iron & Steel Co., visited the Ministry to discuss the councils power to block development contrary to the plan. It is noted that Henderson was "very keen that the town should be developed properly but has little support from the council." Further delays ensue and there was talk of the need to resubmit.

In May of 1925 a Ministry inspector visited Scunthorpe. He reported that the council blame the planners and that the "original proposals have to be <u>completely altered</u>" (underlined by a ministry reader) due to the railway company having changed its plans. The council stated that the planners had known this for some time and have had the new OS sheets for some eight or nine months now and done nothing. The council as a whole are "so incensed with them (the town planners) that they would like to throw them over altogether and would do so but for the contract between them." It was worse than that as there was a large proposal before the council for a development across a new arterial road proposed in the plan but that the town planners were preparing to knock this road out of the plan, the reason being, according to the council, that the town planners are "acting privately for the owner of this particular estate and for the owners of other estates in the district.."

Thus Abercrombie and Johnson appear to have had a conflict of interest. If one takes their view that all the delay was down to the council one could see how they might have decided to recoup some of their wasted time and knowing that Abercrombie and Johnson were the Town Planners it is not surprising that landowners may have approached them for advice and certainty given the delay. But this does seem to suggest that Abercrombie and Johnson were prepared to undermine their own plan.

The inspector stated that the council requested a strongly worded letter which they could use to put pressure on the Town Planners and this was duly sent in June. The Town Planners responded by blaming the LNER railway company for coming up with "*drastic*" proposals including new marshalling yards, high level bridge and other items. They said that as the railway was "*vital to the interests of Scunthorpe*" it had been necessary to enter into long and protracted talks with LNER which resulted in the "*entire re-modelling of the Town Planning Scheme which is now prepared and is virtually a new scheme in many ways..*" A reader has heavily marked these few lines in the margin as it's clear that the Ministry was looking for signs of a "new" scheme to force re-submission. This would have meant more delay and expense for the council and clearly the Town Planners knew this too and whilst previously they had played down the changes to the scheme they were now openly provoking the Ministry. Here we see that Abercrombie & Johnson had to bend to the evolving needs of operations. They had designed a scheme that, in attempting to unify the villages with grand avenues, resulted in a rigid structure over a large area that couldn't cope with changes to any one area.

In January of 1926 the Town Planners finally delivered the scheme to the Ministry along with the Preliminary Statement. No explanation for the delay was given. Also included in their submission were two estate plans "as an indication of the development to which these two portions of the area had been already committed." They were identified as the "Brumby Hall Estate" and the "Brumby Estate", which were probably both developments on the land of the Frodingham Estate Co. Ltd. and more than likely designed by Abercrombie and Johnson themselves.

In mid-February of 1926 the Ministry met Abercrombie and Johnson to discuss the scheme and they exclaimed that "their original plans had been severely cut about by the Council and that they were not now at all proud of them". They then blamed the railway and the local people's desire not to challenge anything that the railway wanted. A "new line" is mentioned and it is most probably a projected line departing the main line near Brumby Hall curving south towards Gainsborough. This line was a serious consideration for some years but was never built. Regarding the proposed railway bridges, or at least one of them, as the Ministry official said "It is quite obvious, looking at the plan, that to pull it together it requires a wide central avenue running north and south." The route of this central avenue can be seen in today's plan but it is interrupted by the 24 or so track widths of the marshalling yard which to cross would have required an expensive bridge. Here we see that the Ministry was of a similar mind to Abercrombie in that wide avenues are required. It would seem, however, that these are required to make the two dimensional plan look good. There was no discussion as to their practical purpose with the focus being on their aesthetic purpose.

Compare this undated but likely early 1920's plan (Figure 39) with the 1930 plan below it (Figure 40).

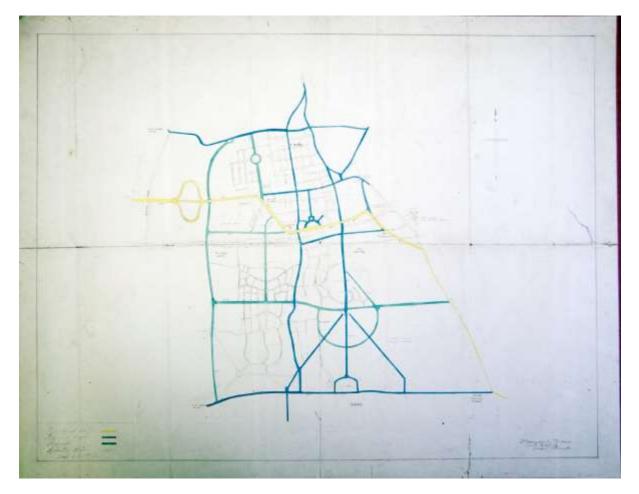


Figure 39 Abercrombie & Johnson, early road plan for Scunthorpe, Copyright North Lincolnshire Council, used with permission.

Here through traffic is directed past the proposed area for civic buildings (yellow road) or through Ashby High Street (blue road across the bottom). There is a pyramidal arrangement of roads north of Ashby and the north-south road running through the apex of the "pyramid" is the one commented as being needed to hang the scheme together but was not fully completed due to the failure to arrange a railway bridge. The road to the west of it is the road that already existed doing much the same thing but going through the centres of Crosby, Frodingham and Brumby thus avoiding the busy central parts of Ashby and Scunthorpe.



Figure 40 Map No.2 1930. My photomontage from an original at the National Archives, Kew. Photographed with permission.

In the 1930 plan you can see the elegant solution to through traffic, the curving diagonal (red road) through the then open fields of Brumby and constructed as a dual carriageway in 1933. This takes all through traffic away from all the then built up areas.

The Ministry official also wrote about an unidentified road that was to have bifurcated to deflect traffic from the built up core being deleted by the council as *"they have a rooted objection to anything except right angles"*. On the surviving Abercrombie road layout plans there are a number of reasonably complex junctions that come together more deliberately to create civic spaces than to aid traffic flows. But the level of car ownership in the '20's was low and these would have become difficult to negotiate by the 1950's. To some extent one experiences this today in parts of Hull where interwar "garden city" designed estates have become overwhelmed by traffic. This further illustrates the idealism of the plan compared to the operational requirements.

We see from Town Planning Committee minutes that in December 1926 it was resolved to ask Abercrombie and Johnson to relinquish control of the Town Plan work and hand over plans etc. for the sum of £600 due for the first stage. In January 1927 they agreed to relinquish work on the Town Plan but state that they have had extra work due to the railway and have also acted outside their brief and asked the council to "*consider*" paying them extra. Further delays ensue. May 1928 Council appointed in-house town planner, Mr. Farrar, and Abercrombie and Johnson departed. On September 29th 1928 the Map No.2 and Preliminary Statement were sent to the Ministry and in February 1929 an enquiry began.

Post Abercrombie approval.

At this point we might reflect that to have councillors with a desire for some notion of a "Garden City" (from 1910) and to employ a leading planner associated with the narrative is not sufficient to overcome the requirements of operations in iron, steel, ironstone, and railways. The cold logic of exploitation and geology overcomes any other narrative considerations. Some of that cold logic emerges in the plan enquiry.

We can summarise the objectors to the plan as falling into one of these types: those that want to keep their options for their land as open as possible, the distinction between "light" and "heavy" industry, compensation and the sterilization of ore due to road widening, the positioning of allotments, the positioning of shops, and building houses on the "low lying" land.

In July 1929 the Inspector produced his 66 page report. He commented on Glanford RDC's roll within the plan thus: "I am somewhat perturbed at this power being conferred on the Brigg Rural District Council who, either through ignorance or indifference have allowed development to proceed contrary to the proposals of the scheme and without reference to the Scunthorpe officials." We have seen that Glanford had always been averse to any impositions on their land due to the plan.

The Inspector also remarks on objections raised concerning Sheffield's land or that of his business interests: "the majority of these are too fantastic to be considered." And "It is hard to be patient with such futility especially as I am quite convinced that these people really know better." Further, "Area by Messrs. Lysaght's works. This, unfortunately, is also Sir Berkley Sheffield's land. The suggestion this time is even more futile." With this piece of land to the east of the Lysaght's steelworks it is suggested by Sheffield that it be zoned residential, as it is actually leased out for this, but with shops and business premises by consent but with industrial buildings without consent! Lysaght's themselves wanted it in the heavy industry zone in case they extend their works over the road. The inspector reluctantly recommended residential zoning. Unusually, then, the powerful landowner prevails over iron interests but only, one assumes, because housing would have been more profitable as it seems clear that no deference was given to Sheffield because of his status.

The UDC had been in operation for a decade but had still not constructed for itself a town hall or municipal offices. They were utilising the multiple offices in use prior to amalgamation. As mentioned the plan provided for an area of municipal buildings adjacent to the new station¹¹³. The inspector noted that the proposed buildings were *"badly needed"* but that the council, who were negotiating to buy the land, *"do not want to schedule the land for this purpose at present as they*

¹¹³ The land was eventually bought and a competition run for the design of municipal buildings but the only buildings built were the central Police Station, Magistrates Court, fire station and later a Civic Theatre. A large portion of the land was a model traffic area for cycling proficiency testing till recently developed for offices. The new town hall and offices did not appear till 1963 and on a completely different site.

fear that this would lead to an inflation of prices". Clearly the UDC hope to make this process work for them yet, regardless of the zoning, it would seem obvious to the owners of the land (trustees of the late Lord St. Oswald) that this is what the council needed the land for. This failure to have a single building to act as a symbol for authority in Scunthorpe is a significant contributing factor in the lack of a projectable public and direct narrative of what Scunthorpe is.

The Inspector found the overall density of 12 to the acre to be fine but thought it a mistake to apply it over the whole housing area, thinking that some areas might benefit from a lower density.

As to Abercrombie's idea that the side of the bluff, running north-south, be "open space" the Inspector and the District Valuer thought that it offered an opportunity for "good class residential property". And of the low lying lands to Scotter Lane (now Road) the Inspector suggested that it might be difficult for it to be zoned open space as the UDC were not likely to be in a position to "pay heavily for the acquisition of this land" so they may be better off putting a really low density of 2-4 per acre on it, though he disliked making the suggestion. Here again practical operational issues win out.

When the Inspector came to other "low lying" lands zoned for agriculture Sir Berkley Sheffield came in for more criticism. Sheffield proposed that, yes, it should be zoned for agriculture but industrial buildings could be put up without consent whilst at the same time houses for agricultural workers would need consent. The Inspector comments, "*This is a fantastic proposal and I do not think that the owner is really genuine in proposing it.*" He was in favour of retaining this as agricultural use only, not unnaturally considering he remarks that large parts of it were standing water when he visited it.

Having dealt with a number of details, in his report, the Inspector moved to more of a narrative summation. As regard the Ironmasters he said this:

"The council have throughout been in touch with the local representatives of the various firms who have works in the neighbourhood, and generally speaking, the relations between the parties have been amicable. It has not been possible to smooth out all difficulties but I think the council have gone to the limit in the way of concessions."

Of Sheffield and his associated corporate identities the Inspector remarked:

"They take objection to everything. A schedule submitted on their behalf is interesting. Their case practically is that they wish the whole of their land to be transferred to an "intermediate" zone with few exceptions. It is, of course, not possible to accede to this."

His "final remarks" read:

"The scheme is not a good one. The history of the case is a somewhat stormy one and what has happened is that the council have taken Professor Abercrombie's scheme as a basis and changed it out of all recognition. The area is certainly a difficult one to plan." He then recommended approval subject to 62 separate recommendations each of which one might describe as minor.

Reflections on the planning process.

All the way through the plan gestation process we see that the goal has always been too ambitious for the council to achieve. Perhaps many councillors and ratepayers in the district saw that there was plenty of room for growth and somewhat perversely, perhaps, didn't think that there was a need for a plan. Perhaps some felt, like the Ministry, that the ironstone/iron/steel industry would only be a temporary phenomenon and thus no need to plan. As we have seen post amalgamation progress on a town plan moves surprisingly quickly with them almost there in 1921 but they were still only almost there in 1929! The practical requirements of operations in iron & steel, along with the railways and mining accompanying it, were that a wide degree of flexibility was required for its growth and as such this conflicted with a plan based on imposing an inflexible order.

Councillor Read, we can assume, thought a Town Plan was going to make Scunthorpe into a Hampstead Garden Suburb of the North, Henderson probably looked on it as a means of bringing order to chaos. Abercrombie probably wanted to lay out a great central avenue a la Baillie-Scott and Lutyens but ultimately lost interest when operations required flexibility. For most of the council I think the town plan was really just a bit of a nuisance nagging away at them and yet in this sense the town plan serves a useful purpose (even though technically during this period it actually isn't approved) as it made those councillors consider a bigger picture. Thus it went from having an end goal of tree lined sweeping streets and Arts and Crafts architecture to becoming a useful thought process in in its own right, stimulating debate as to what Scunthorpe was and should be.

Abercrombie's "garden city" legacy.

What, then, actually remains of Abercrombie's "garden city" legacy in Scunthorpe? Locally it is said to be the Henderson Avenue housing scheme. For Example M.E. Armstrong writes

"But inspired planning was at hand. Patrick Abercrombie was for eight years coplanner for urban growth in Scunthorpe, and this was to mean that the next council scheme, Henderson Avenue, 1921, was designed by him in best 'garden city' tradition; there was landscaping, careful attention to facades and the overall appearance of the estate." (1981, p 138)



Figure 41 By-law housing (right) v "garden city" style (left) in Scunthorpe. Copyright Google 2019.

In Fig.41 the scheme can be seen laid out around a circular feature to the left of centre and you can contrast it with the "by-law housing" to the right. The housing on the extreme left is from a redesign of the proposed plan executed in the 1930's to a plainer design. In the council minutes it is known as scheme number four. In fact there is no doubt that the architectural firm of Brocklesby & Marchment were the designers of the scheme. They were appointed for site number four by the council in July 1920, the same month that Abercrombie and Johnson were appointed to design the Town Plan. It is clear that the council had purchased and allocated the site prior to the involvement of any firm. There is no mention of Abercrombie in the council minutes relating to this scheme and there is a minute that suggests the same architects should be hired for both the town plan and scheme number four though that clearly didn't happen.

John Sidney Brocklesby and Wallace Marchment were London based architects and were designing part of a large estate, called the Whatley Estate, in the London Borough of Merton at that time. This estate was said to be *"in the style of a Garden City suburb"* (Merton Council, p 2). Brocklesby was also the second principal architect for the Merton Park estate of John Innes. This estate was developed from 1873 and said to be *"the forerunner of the garden suburb movement"* (John Innes Society 2021). Utilising Google maps and streetview it can be seen that there are strong stylistic and layout similarities between the Henderson Avenue scheme and the work done by Brocklesby in Merton.

Brocklesby & Marchment had a plan out in 1920 (Fig. 50 below). Pocock writes: "In detail the eastern part of the corporation's Crosby estate, with its heavy and, at times classical design, is the tangible contribution of Sir Patrick Abercrombie." (1970, p 60) His note 13 says: "See Brocklesby and Marchment for P. Abercrombie, Crosby Housing Scheme for Scunthorpe and Frodingham U.D.C. (1920) 1:1,250 plan in Borough Museum". However the said plan would appear to have been written on at a later date in red ink "For Prof. <u>Sir</u> Patrick Abercrombie", (my underlining) which would make the date of the writing post 1945, when Abercrombie was knighted. It is not clear to me that an

involvement by Abercrombie in the layout or architecture can be proven one way or another. However it seems likely that he may have been consulted on how the scheme would connect to a wider road plan. We might also consider the volume of work Abercrombie was involved in at the time and the tardiness (as the council saw it) with which he completed work for them.



Figure 42 Semi-detached and detached houses on the Henderson Avenue scheme today. Originally circa 1921. Copyright Google 2017.



Figure 43 Short terraced houses on the Henderson Avenue scheme today, originally circa 1921. Copyright Google 2017.



Figure 44 Houses on the 1930's extension to the Henderson Avenue scheme laid out to an altered plan from that originally suggested in the 1920 scheme. Copyright Google 2017.



Figure 45 Brockelsby and Marchment's 1920 drawing. Of the area tinted most, except the north-west quadrant, seems to have been constructed to plan, although no building was placed in the circle. Streets to the east (right) were already extant. Inked detail to the south was not constructed as shown. Phase two, broadly the non-tinted area to the west, was not constructed as shown. Copyright North Lincolnshire Council held at the North Lincolnshire Museum, used with permission.

Some notes, held in the Scunthorpe library archives (uncatalogued), compiled for a local exhibition about the estate, state that it was Brocklesby who took the lead in his firm's design, that his ideas *"sprang directly from the Garden Suburb Movement"*, that his Arts and Crafts style was *"influenced by the vernacular architecture of Norfolk"* and that he *"reused plans from an estate in Merton, Surrey"*¹¹⁴ The writer also states that Brocklesby and the UDC fell out over fees, as with Abercrombie, resulting in the plainer redesigned west end completed in the 1930's. Thus we see that hiring Abercrombie did not produce a noticeable *"garden city"* legacy. What, then, of the Ironmasters proposals?

Ironmasters "garden city".

Of the bits of the Ironmasters original "garden city" proposals actually built the largest seems to have been that done by the Redbourn works. This area, around and south of Cottage Beck Road, is discussed here: (Foster 2013/4. Issue 94 Winter). My calculation of the area and number of houses presently standing in that part of the plan reveals a density of about 11/acre. Across these sites we see a broadly similar housing type with a mixture of a small number of detached properties (usually filling 'awkward' spots in the layout) semi-detached, and short terraces, all with front and rear gardens and with rendered or part rendered walls. Gables perpendicular to the road punctuate a roofline that is otherwise parallel with the road. These houses fall somewhat short of the kind found in Letchworth or Hampstead Garden Suburb in that they lack the vernacular details and variation but nevertheless offer superior space, both internally and externally, to 'by-law' housing.



Figure 46 This postcard shows part of the northern section of the Redbourn Village Society scheme not long after completion. The view is actually of Roland Road and not Cottage Beck Road. There are aspects of this photo that could be said to be "garden city" esque and these would be the trees, modulated frontages, low eaves, gables fronting the road etc. Unknown copyright, used under fair use exemption.

¹¹⁴ By this I think we must assume the writer meant house plans.



Figure 47 The same view today looks something less than a "garden city". Copyright Google 2019.

The only mention of new houses and "garden city" at the end of the First World War that I could find in relation to Scunthorpe in the BNA was a press release concerning John Brown and Co¹¹⁵.

"GARDEN SETTLEMENTS.

Famous Firm's Experiment for Workers Benefit.

A step that may prove the beginning of a new era in the conditions of employment in the British steel industry has been taken recently by John Brown and Company Limited, shipbuilders and engineers of Sheffield and Glasgow.

The type of house which forms the home of the vast majority of workers in our great manufacturing centres has, for long, left a good deal to be desired from the standpoint of comfort and hygienic qualities.

A considerable number of dwellings, in every way superior to those which the workers have been accustomed, is now being built by the famous firm named for the steelworkers employed at their new steel foundry at Scunthorpe, Lincolnshire.

Houses of Bungalow Type.

¹¹⁵ John Brown & Co. were part of the Frodingham Estate Co. venture.

These houses are of the bungalow type, constructed of concrete slabs with a careful regard to interior domestic conveniences. Each provided with an <u>allotment</u> <u>plot, or garden, so that the tenants may grow vegetables</u>, etc., at their own doors.

An extension of the idea is being carried out by Messrs. Brown, in conjunction with other large firms in the Scunthorpe District, and a considerable estate is being developed there on garden city lines.

Ample Open Spaces.

A large number of houses is being erected, mostly of brick, and all the resources of modern town planning are being utilised to provide this busy manufacturing centre a <u>healthy and picturesque</u> residential quarter, equipped with ample open spaces, and amenities <u>associated with country, rather than industrial life</u>.

Great interest is being taken in the experiment, which is expected to have considerable bearing upon future housing conditions in manufacturing districts." (Sheffield Independent 1920)¹¹⁶

At the time of this report it was over 20 years since "Tomorrow", Bourneville and Port Sunlight and yet it is still necessary to explain the concept of "garden" and defend it. It is still "an experiment". Of course this scheme has no community ownership and no relationship to commercial development is mentioned either. The mention of "growing vegetables" and "amenities associated with country life" bring to mind a sort of reverse "three acres and a cow"¹¹⁷ mentality where instead of giving people a bit of land and a cow so that they stayed in the countryside people are now being given room to grow their own vegetables in an effort to keep them in the town. This advert is, however, the first to promote Scunthorpe and "garden (settlements)" in the same public narrative, albeit in a modest way.

We notice that there is now a thing called a "garden settlement", an addition to the "garden" lexicon, further broadening the concept.

The reality of the scheme is shown below. It would seem that the dwellings have been heavily modified since completion so it's difficult to tell what the original features were, however we can see that aesthetically they again must have fallen short of the vernacular detail that one finds in Letchworth, for example. Density here was approximately 9/acre.

¹¹⁶ And other newspapers, my underlining.

¹¹⁷ (Impey 1886)



Figure 48 Rivelin Road bungalows by John Brown & Co. circa 1920 as pictured circa 2017. Copyright Google 2017.

"Garden" and meaning in Scunthorpe 1917-1930.

What we can say about what "garden city", "garden city style", "garden village" or "garden settlement" means in Scunthorpe from the period 1917 to 1930 is that firstly, as I have said, the term "garden city" or similar is entirely absent from official sources. Neither Abercrombie nor the Ministry nor the Council mention it. Rather we see the steel companies utilising the word "garden" to promote a more benign public narrative. Secondly there is never any suggestion about community ownership of land. Thirdly Abercrombie's proposed plan bears only some of the hallmarks of Letchworth and other "garden" settlements in that it would have had grand avenues, diagonal main roads and designed spaces; small squares and the like, at intersections along with a substantial area of parks and local play spaces. Elsewhere "estate" roads were to have been more curved although, as I have written, this type of layout has a lot to do with Unwin and the Ministry and less to do with Howard. Fourthly we have no faux medievalism, Queen Anne style and vernacular detail in the architecture, which typified Letchworth. Fifthly densities drop considerably leading to the creation of "garden" spaces adjacent to dwellings for a much larger number of families than before.

The situation in Scunthorpe, then, differs very little from the national picture. From the end of WW1 to the outbreak of WW2 some of the core elements that emerged in the building of Letchworth and as such come to be associated with "garden city" but which as we have noted are not necessarily "garden city" in Howard's vision, get enshrined in a series of planning acts throughout this period, thanks to Unwin. As a result of that it becomes less necessary to talk of "garden city" because the development that is taking place is of a kind dictated by principles that have evolved from "garden city" experience. There is, then, a thinning out of "garden city" ideals which meets a thickening up of

actual development to the point where the two become synonymous. Utilising the word "garden" in connection with development remains relevant, as a beneficial slogan only, well into the interwar period.

Transitioning from "Garden City" to "New Towns".

After working with Scunthorpe and Frodingham U.D.C. Abercrombie pursued what can be seen as a successful and high profile career. The particular direction of Abercrombie's "garden city" thinking was strongly directed towards the preservation of the countryside as much as anything else. Whereas Howard was trying to revive agricultural fortunes by decanting populations from large cities into the countryside and placing them in small, self-sufficient and community owned towns, Abercrombie became concerned with halting suburban spread by providing a band of open country at their edge and then building or expanding settlements beyond that. This was already apparent in his Doncaster regional plan but is usually quoted in respect of his Greater London (1944) plan and his plan for Glasgow (1946). Thus it was he who, having become a member of the National Garden Cities Committee in 1918 (set up by the "New Townsmen"), actually sets the seed for the realisation of "New Towns" with his Greater London plan leading to the New Towns Act of 1946. These new towns, although spiritually linked to "Garden Cities", are not referred to as "Garden Cities" or "Garden Towns" but are referred to as things called "New Towns". Of course "Garden Cities" were always de facto new towns and in the journal of the Garden Cities Association (and elsewhere) there is much use of the term "new town" but by the end of WW2 we now had a thing which is a "New Town". In Howard's view Government was seen as a probable hindrance but by the 1940's Government was seen as the only option for the delivery of New Towns. I would suggest that the shift away from the term "Garden City" to "New Town" was, at least in part, due to the associations with the less than successful "homes fit for heroes" promises emerging during and after WW1. Writing the forward to "When We Build Again"¹¹⁸, Lord Balfour says:

"During the last war people took it for granted that a better world would emerge almost automatically from victory. Hardly anyone doubted that Homes for Heroes and all that that phrase stood for would be achieved. This time we know better, and we realise that the defeat of Germany is not enough of itself to secure a perfect world." "Why has town and country planning failed to prevent those things? Because it has been too local and too negative. It could prevent bad things, but could not initiate good things on a large scale. It lacked central direction and inspiration. Above all because the key to good planning was absent; that is, the national control of the use of land." (Bournville Village Trust 1941, pp vii - viv)

Here we see an appeal for sweeping peacetime central planning powers which were already developing to aid the war economy. We will see this control of local authority building in the first post war council development.

¹¹⁸ It was optimistic in 1941 to suggest that there would be such a time.

Post WW2 Scunthorpe.

Following WW2 there was still land available in Scunthorpe for housing within the area Abercrombie allocated for development. The first post WW2 housing scheme by the council was called Lincoln Gardens. This large estate finally connected the urban area of Brumby with the boundary of Ashby to the south and from council minutes it is clear that the council already owned some land which contributed to this estate prior to purchasing 130 acres for it from Richard Thomas & Baldwin in 1945¹¹⁹. The naming of the estate as Lincoln Gardens derives from the existing name of a short piece of road, developed in the '30's, from which the estate was accessed from Ashby and not in relation to "garden city". Quite why the original road (and an adjacent road, Lindale Gardens) was named "Gardens" is not clear but fortuitous or not the decision to continue to use that name, when another could quite easily have been chosen, suggests bringing the "garden" idea to the fore. Many of the new streets are named after tree species.

Planning for Lincoln Gardens estate was clearly extant in 1944 and in reviewing the council minutes I found this entry from 1946, the year in which construction began, that shows the detailed level of control over design matters that the MoH is enacting.

"A letter dated the 3rd inst. from the Ministry of Health was read stating that the proposed lay-out of the above site was considered satisfactory subject to the linkage of out-houses in Blocks 5 and 6, and the erection of curved linking walls around shrubberies at the south end of Blocks 3 and 6. The house type plans submitted were also considered generally satisfactory."¹²⁰

There was also significant financial control, and there are mentions of tenders needing to be approved by the MoH . On top of that there are allocations of materials, plant and labour also discussed (as one might expect given post-war shortages). At that stage the council has no direct labour force and tight financial controls lead to protracted arguments with local builders over the acceptable build price for the houses.

¹¹⁹ The RTB land is part of the original Redbourn purchase from Beauchamp in 1919 and thus bringing to completion the "Garden City" idea planed by the Ironmasters.

¹²⁰ Scunthorpe Borough Council Minutes held at Scunthorpe Library.

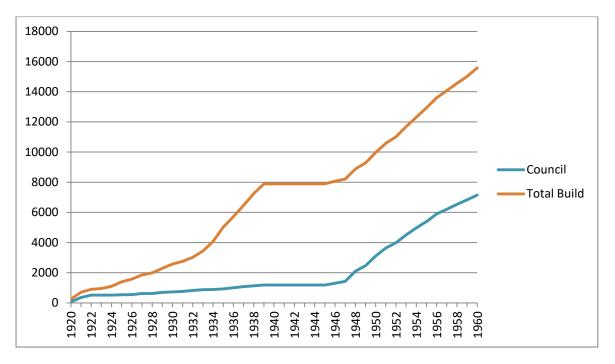


Figure 49 By 1939 council housing had declined from a high in 1922 of 58% to represent 15% of new houses built since 1920 but by 1960 almost 46% of all houses built since 1920 were council houses. Interpreted from data in (O. A. Hartley 1969)

A public narrative for a thing called Scunthorpe emerges.

Whilst the naming of the Lincoln Gardens estate may have been accidental the next engagement with the "Garden City" name comes in the 1960's, when Scunthorpe Borough Council gives Scunthorpe the title "Industrial Garden Town", is deliberate. As we shall see this appears to be connected both to fears of competition from designated New Towns like Corby as well as continuing the previous associations with "Garden City".



Figure 50 Scunthorpe guide published in 1964. Copyright North Lincolnshire Council, used with permission. Copy held in the North Lincolnshire Library in Scunthorpe.

The phrase "Industrial Garden Town" appears first on the cover of the 1964 Scunthorpe Borough Guide¹²¹. Figure 55 shows the cover of that guide and we see that this is a "Resident's Guide to the Industrial Garden Town". Just in case you miss the subtle symbolism used here the circular feature is a stylised flower with the near vertical word "Scunthorpe" providing the stem. Two "leaves" complete the "flower" which alludes to the "garden" word. To include the "industrial" part you will note that the edges of the flower and the leaves have been toothed as in a gear. What this indicates to us, by the fact that the artwork is tied to the phrase and that this appears to be the first use, is that a concerted effort has been made in the use of the phrase and it is deemed important.

Given the timeframe we can see this promotion of Scunthorpe as an Industrial Garden Town in the context of the post war New Towns movement. By the early 60's the New Towns were gaining much publicity. One of these New Towns, designated in 1950 with work commencing in 1954, was another Steel town – Corby - the town where Stewarts & Lloyds had built an integrated steelworks, in 1931, which had previously been slated for Scunthorpe. Scunthorpe also blended the same Northamptonshire bed iron ore as Corby along with its own. Without doubt those in local government in Scunthorpe would have been well aware of what was happening in Corby and could have thought that although Scunthorpe had not been designated a New Town it was a de facto new town and should be recognised as such otherwise Scunthorpe could be disadvantaged in attracting new and retaining old industry and people however the then Labour controlled council, under the Mayor and chair of the New Industries Committee Les Hornsby, realised the fragility of reliance on

¹²¹ (Scunthorpe Borough Council 1964)

steel but was also constrained by the ironmasters, as this later recollection from Councillor Tierney shows:

"Councillor Leslie Hornsby, chairman of the committee responsible for attracting new industry, was deeply conscious of the town's dependence on steel. However campaigns to attract alternative employers in fields that would compete with the steelworks for labour were actively discouraged by top works management. Indeed it was suggested that such attempts could lead to investment being diverted to other steel areas." (Steelmaking has provided jobs for thousands since first historic cast 2020)

"Other steel areas" was surely code for Corby. Irrespective of the perception of a direct Corby threat or not the council, under the leadership of Councillor Len Hornsby, J.P. leader of the Labour group and Mayor for 1963/4, was certainly thrown into action in an attempt to encourage new business and improve the image of the town. 1963 was an important year for Civic life in Scunthorpe with the opening of the prestigious new Civic Centre adjacent to Central Park.¹²² Finally Scunthorpe was to have an iconic and symbolic building, and a distinctive direct and public narrative to go with it.

Another council produced brochure entitled "Scunthorpe: Portrait of Progress"¹²³ was also produced (Scunthorpe Borough Council 1965 (circa)). On the first inside page the text begins with:

"The Industrial Garden Town. Someone recently coined this phrase to describe Scunthorpe – a paradox? Only to those who have not yet had the pleasure of coming to Lincolnshire to see for themselves."

Thus admitting that the juxtaposition of the words was something of a challenge that had to be seen to be believed. Although anyone who did venture to Scunthorpe at that time may well have found the juxtaposition valid.

Can we narrow down the origins of the phrase? In October of 1986 the Scunthorpe Evening Telegraph published a special supplement celebrating the borough's jubilee¹²⁴. In that supplement was an article which celebrated the work of the Parks Department and its head, George Haynes. It states:

"But one man can lay claim to having given the steeltown its title of Industrial Garden Town. It was the horticultural expertise and planning of George Haynes which gave it an image to enable visitors to exclaim, with some surprise, that it was nowhere near the black spot it had been painted." (Scunthorpe? It's blooming lovely! 1986)

But it is not clear that this means Haynes actually came up with the phrase or that the work of the parks department inspired the phrases creation and/or made it plausible. Haynes came to Scunthorpe in 1954 to take the position of Parks Superintendent which he held till 1985. It is correct to say that the number and standard of parks increased measurably during Haynes tenure. The first public park was Sheffield Park in Crosby in 1926, a park Abercrombie tried to have relocated at the

¹²² So not in the position previously suggested in Abercrombie's plan.

¹²³ Copy in my possession.

¹²⁴ Borough status was achieved in 1936.

planning stage. In the mid '30's Manor Park, Kingsway Gardens, Jubilee Park and part of Central Park opened. However these were not all fully maintained and developed until Haynes' appointment when the parks department seems to have been expanded significantly (including gaining its own plant nursery) as did the number and acreage of parks following the post WW2 housing boom. This growth probably reached its zenith with the acquisition of a lease of nearby Normanby Hall¹²⁵ and its associated parkland.

Returning to "Portrait of Progress" we can pick out some key phrases from the publication. Under the section titled "*Thousands of Homes*" it says:

"Wide, welcoming approach roads, flanked by tree lined avenues; generous open spaces for recreationthese will be seen of his first impression."

And:

"Nearly 7,000 houses ... grouped in eight new estates have been built by the local authority since 1946".

Here we see references to the visual appeal of Letchworth, Welwyn etc. with tree lined avenues and generous open spaces but also subtle reference to the New Towns with the mention of 1946 (date of the New Towns Act.) and the creation of eight new estates. This continues further on in a section titled *"Community within a Community"* where it says *"each estate has become a community within a community"* as well as praising the secondary centre of Ashby hinting at the more prominently espoused neighbourhood units of New Towns¹²⁶. Under the section *"Civic Centre"* we have:

"The Civic Centre, standing majestically in more than one hundred acres of lovely park land, is a compelling answer to those who decry contemporary architecture"

Which neatly puts the large park at the centre of Scunthorpe, as in Howard's garden city design and it also effectively borrows playing fields and sports facilities adjacent to Central Park, but not actually owned by the council, to bulk up the figure to 100 acres.

As car use grows and wages rise, significant housing development begins to take place in the villages surrounding Scunthorpe from the late 1950's and is particularly noticeable by the mid '60's. This period also sees the contiguous urban area extend into the previously separate settlements of Bottesford and Yaddlethorpe to the south, which were outside of Abercrombie's suggested urban area. The expansion of villages such as Winterton, Broughton, Messingham, Scawby etc., which form a ring round the urban area, now make it difficult to write about specific number for the population of "Scunthorpe" in a complete sense as these villages are increasingly becoming dormitory settlements for Scunthorpe workers. By accident they do somewhat mirror Howard's diagram of slumless, smokeless cities with Scunthorpe as Central City. There is no legislative "green belt" round Scunthorpe but a policy of tight development lines round all rural settlements constrain encroachment between settlements effectively creating the scenario seen in Howard's diagram.

¹²⁵ From the Sheffield family who were, anecdotally, said to be pleased to be rid of the monetary burden A move of which Abercrombie warned against in general terms

¹²⁶ Although Neighbourhood Units go back to Perry in the early 1900's and were advocated by Unwin they became more widely publicised in the UK with the New Towns of the post WW2 era.

This then is an interesting period where Scunthorpe, through its council, appears to promote a "garden city" heritage whilst at the same time attempting to merge this with the modernity of the New Town movement. It successfully manages to develop a direct public narrative which expresses a confidence in a thing called Scunthorpe and direction for its future.

Decline and downgrading of an official voice.

The bravado of the mid 60's led to a focus on the redevelopment of the town centre with the Crosby flats development of 3 twenty story residential towers and additional 4 story blocks completed in 1966. The retail centre at the western end of High Street, which included the market, was demolished and rebuilt as a pedestrianised shopping area, completed in 1970, but the council failed to bring on-board the Scunthorpe Cooperative Society whose then large retail empire was situated in central and eastern High Street thus continuing the sprawling retail provision. However doubts about the future of the steelworks began to surface again and the attempts to attract other industry had only minor success. Some clothing manufacture had arrived aimed at soaking up at least some of the under employed female population but after the various steel and related industries the next largest employer was Riley's Crisps, a Scunthorpe business, born in 1946, that by 1986 was employing 1,750 people. The harsh economics and inflation of the 1970's was followed by the steel rationalisation of the 80's. The ability of operations in Scunthorpe to narrate themselves as "port based" led to the massive government investment of the Anchor project but at the cost of all blast furnaces closing, other than Appleby Frodingham's four, and all ironstone mining ceasing. Thoughts of expansion, expenditure and civic pride were replaced by a battle for survival. Remnants of a once vast army of iron & steelworkers began to arrive in Scunthorpe again as works elsewhere were closed and Scunthorpe (along with Port Talbot) became the last refuge of the industry. Operational focus seemed to shift to the (south) Humber bank petro-chemical industry. Political power moved north to Beverley with the creation of Humberside in 1974, an unpopular move that many felt left Scunthorpe to "rot" at the expense of shoring up the port of Hull¹²⁷. However in 1996 political power was returned when the unitary authority of North Lincolnshire was created. This new authority could be seen as the expansion of Scunthorpe Borough, encompassing Glanford Brigg as it now did, giving it the kind of impetus that the Abercrombie plan did. A Scunthorpe centric official voice returned and with it the ability to create narratives.

Return of a Scunthorpe centric official voice and the development of a new narrative.

As the millennium approached the need for new housing and the opposition to its placement were both rising. If government was to make development more palatable it needed to come up with new ways of portraying "new towns". One way was through programs such as the Urban Renaissance Program, which I talk about below, but another was the relatively short lived Eco towns initiative¹²⁸ which proposed towns of high environmental standards, in an effort to channel "green" opposition,

¹²⁷ Coincidentally also the subject of an Abercrombie & Lytyens plan in 1945.

¹²⁸ From 2007

as well as a high percentage of "affordable homes" and a high percentage of communal green space. Some of the shortlisted sites were on former MoD land and it could be said that this and the subsequent government's new "Garden City" initiative were at least partially focused on converting the surplus of government owned land into cash for the Treasury.



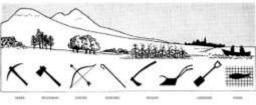


Figure 51 Interesting similarity between the Scunthorpe Town Team logo and the Geddes diagram "Valley section with basic occupations". Logo copyright North Lincolnshire Council, used with permission. Section is in the public domain.

It is in this atmosphere, then, that we see the next entanglement of Scunthorpe with "garden city" in the guise of the "Lincolnshire Lakes" concept for the expansion of Scunthorpe to the west. This can be traced back to an "Urban White Paper" produced centrally to which the development agencies, in Scunthorpe's case Yorkshire Forward, responded in 2000 with initiative called the "Urban Renaissance Program". This had six pilot towns - Scarborough, Wakefield, Huddersfield, Doncaster, Barnsley and North East Lincolnshire and in December 2002 the prospect of Scunthorpe being one of a further six towns to be added to the program was brought before North Lincolnshire Council.

Note that North East Lincolnshire makes it into the pilot project ahead of Scunthorpe. North East Lincolnshire is not, of course, a single town and it is included under the bracketed subtitle Grimsby, Cleethorpes and Immingham. Grimsby and Cleethorpes are a contiguous urban area and you would be hard pressed to know where one ended and the other began. Immingham is about 8km away from Grimsby to the west. You may recall that in the Abercrombie period there was a suggestion from the MoH that Immingham ought to be incorporated in the Scunthorpe plan, despite it being some 26km away, due to its importance to Scunthorpe as a port but in 2000, and for some time prior to then, it was clearly to be seen within the context of Grimsby and the much wider range of industries that have accumulated on the banks of the Humber.

The briefing note for the council describes, in summary, what is on offer. "World-class" (their parenthesis) urban centres are to be created and these will attract "investment, people and jobs". Not quite Geddes' "work, place, folk" as place has lost out to investment and note that two factors relating to the production of surplus bookend people. The means to achieving this is with the help of one of an "international panel of architects, urbanists, landscape designers, engineers and planners".

The strong narrative here is that settlements in the region, and indeed other regions, have nothing that is "world class" already or that the classes or standards presently applied in the region fall well short of world standards. This is further enhanced in the next sentence with the stated need for an *"international panel"* of *"experts"*.

Certain outcomes have been pre-determined as Yorkshire Forward will only be advance funds if reasonably constrained actions are taken. There is a claim that there would be "ownership at a local *level*". Other hyperbolic language is used such as the claim to use a "visionary and creative approach to urban planning". The result of this process was to be "The production of an exceptionally high quality Urban Renaissance Strategic Vision that will drive the regeneration of the town."

There's a strong sense here of the negative anti heavy industry, anti-northern narrative creeping in here. The actors in this process were to comprise Yorkshire Froward Urban Renaissance Team, North Lincolnshire Council (officers and members), Gillespies (the chosen consultants) and a "Town Team", this latter to be recruited from the "*North Lincolnshire Strategic Partnership and its stakeholders*". We also notice here that the NLSP has already endorsed the idea and is keen to take a "*leading role*" in the next step, which is the development of an "*Urban Renaissance Charter*".

NLC agreed to join the scheme and by the autumn of 2003 progress had been made and proposals had been put to the public in what was described as a *"Crucible weekend"*. More powerful language is in use here.

At some point prior to that weekend a series of lakes were suggested for the area to the west of Scunthorpe. I attended one day of the "*Crucible weekend*" and it is my clear recollection that the lakes element of the scheme was already a permanent feature at the time of the "Crucible weekend" and that this event was more about showing what was going to be the plan than it was about soliciting opinion on the creation of the plan. I remember talking to a senior planner and of him being confident that lakes were the way forward. Whilst undoubtedly some fine tuning was done as a result of the weekend, and indeed fine tuning of the LL development continues today, the core decisions seemed to be already in place.

It is noted in some of the literature I have read that alternative urban addition solutions had been looked at in addition to the westward expansion solution. I've not seen anything of these other possible solutions and it may be that the die was cast when the M180 (1977-79) and M181 (1978) were built and thus some options were constrained. Back in 1966 the then Scunthorpe Borough Council commissioned Leeds University Planning Department to consider the future path of expansion for Scunthorpe and they proposed expansion to the north and south.



Figure 52 Cover of the 1966 Leeds University planning revue depicting where it saw growth potential. Copyright North Lincolnshire Council, used with permission.

When considering improved road connections in 1966 Scunthorpe Borough proposed a new road passing to the north of Scunthorpe (indeed not a lot different from the ideas of the '20's) from thence it would proceed directly to the end of the proposed Humber Bridge after which it would proceed to Grimsby following closely to the southern bank of the Humber. The Borough were opposed to a southern bypass of the town but in the end we have the layout as exists today which is a southern bypass upgraded to a motorway. A north south spur was not required to the east of the town as the dual carriageway A18 took industrial traffic to a new motorway junction only a short distance away but a north south spur (the M181) was created parallel and to the west of Scotter Road on the west side of the town. As soon as this was created it became obvious to me that there would eventually be at least some expansion to the west as far as this new road if not over it. Abercrombie and Johnson identified Scotter Road, which runs north-south along the bottom of the ridge, as the western limit of expansion, although this was breached north of the railway in the 1930's, and the M181 effectively "moved the goalposts" further west. The Lincolnshire Lakes proposal actually goes further and straddles the motorway (which has now been de-trunked).

"Lakes" are essentially holes in the ground and digging those holes is expensive, particularly so if you are not going to be able to sell that which you dig up or fill the hole you create with waste for which you are paid. Thus it raises the question as to why you would saddle this development proposal with this large cost. The "Scunthorpe Strategic Development Framework" (Yorkshire Forward 2005) provides a possible answer. In 1996 Humberside County Council commissioned Gillespies to provide a "Landscape Assessment" for the county and I suspect that this identified the flat lands to the west of Scunthorpe as a place for attenuation of possible Trent and/or Humber flooding. Certainly other documents I have seen relating to development of the Humber banks do emphasise the potential flooding threat and the Gillespies report is cited.

On page 45 of the SSDF, the beginning of the Lincolnshire Lakes section, it states:

"The starting point for the lakes concept arises from the fantastically flat landscape to the west, the existing gullies and abandoned quarries that naturally fill up with water, and the tantalising closeness of the River Trent to Scunthorpe. These combine with the need for flood alleviation capacity in the region and a new external image for Scunthorpe to create a compelling case for a new waterside setting in the town."

Here, hiding in plain view, is the main reason for the lakes – flood attenuation. The lakes are not, then, an expensive piece of landscaping for the housing, the housing is a way of paying for the flood attenuation.

The SSDF document would seem to be the first published document to use the phrase "*Lincolnshire Lakes*". A theme running through the document is the need to rebrand Scunthorpe and change its public image. It would appear that this has been seen as a requirement since the start of industrialisation.

Reconnecting with "Garden Town"

The SSDF document contains another item of interest for us with the renaissance of the idea of the "Garden Town". As we know the connection of Scunthorpe with the Garden City movement goes back to 1910 and in the SSDF we see a chapter entitled "*New Century Garden Town*". Clearly in 2005 it is felt that there is still useful life left in the narrative. North Lincolnshire Council's Lincolnshire Lakes Area Action Plan –Submission Draft 2014 states at 2.3 that "*Lincolnshire Lakes builds on the rural Heritage and Garden City tradition of North Lincolnshire…*" and at 2.24 there is a bullet point "*New Century Garden Town*: the legacy of Abercrombie's Garden Town is conserved and reinvigorated for Scunthorpe in the 21st century by connecting and enhancing the towns green spaces." As I stated Abercrombie never mentions "Garden Town" in any of the surviving planning documentation and as we saw he wasn't even proud of the plan he eventually produced. Further one thing he was really adamant about was not building on the "*low lying*" lands and this is exactly where the Lincolnshire Lakes development, which is so proud to associate itself with him, is going to be built. As a result it is hard to imagine Abercrombie's plan being associated with the proposal.

Page seven of the SSDF is titled "*Patrick Abercrombie* – *His Vision for Scunthorpe*". Considering the page layout first, we have a photograph of a smiling Abercrombie, a plan of Welwyn Garden City – little to do with Abercrombie or Scunthorpe, Ebenezer Howard's 1898 well known plan "Group of Slumless Smokeless Cities" which is from the founding work on "Garden Cities" but also nothing to do with Abercrombie or Scunthorpe and lastly an image of one of Abercrombie's several road layouts for Scunthorpe overlain onto a modern plan with some inaccurate shading of buildings. The description of this plan is titled "*The Industrial Garden Town*". I have established that this phrase did not exist till the 1960's, well after Abercrombie's time.

Ewart Culpin's book lists only "Garden City", "Garden Suburb" & "Garden Village" (1913). In more recent times Bicester was referred to as a potential "Garden Town" in relation to the government's plans for the disposal of ex-MoD land for housing development but at the same time Biddulph,

Staffordshire (Biddulph, Garden Town of Staffordshire 2022) and Carmarthen, Wales (Daffodils Planted)¹²⁹ were both being talked of as "garden towns" because of their flower displays and general floral abundance as well as, in the case of Biddulph, the ease with which you can get into the countryside from the town centre.

So when the SSDF talks about the "Garden Town tradition" it is not particularly clear what that means at this point in the document and, indeed, it suggests that this is deliberately so. As for Abercrombie and "Garden Town", if we look in English Garden Cities: An Introduction (Miller 2010) we find a list of what are considered to be the 57 major developments of this kind and Abercrombie is listed as co-designer of only one (Dormanstown, Redcar 1918) and that particular example is not one that could be said to have many of the "features" of most typical of the genre. If they are meaning "Garden Town" as in Scunthorpe the Industrial Garden Town then that is a phrase not seen, as I have said above, till 1963.

It would seem that the SSDF is trying to lend legitimacy to its plan proposals by re-interpreting both Abercrombie and Howard. Whatever we may think of Abercrombie and the reality of what he actually did versus what is written of what he is supposed to have been involved in, he was, both in his time and now, a well-known name in British planning history and, thus, adding the perception of gravitas to the SSDF proposals by association.

The SSDF states that "The overriding principle of Abercrombie's plan was to link the five villages...Firstly by establishing a comprehensive road network with strong north-south connections and, secondly to join Ashby and Scunthorpe by developing the land between Brumby and Frodingham, which would merge all five villages." As all five villages are almost exactly aligned north-south and the natural features of the area are too, a north-south axis was already there. The ironmaster's scheme to build in Brumby also predates his appointment as planner, though as we have seen there is some suggestion that he might have had some role in that. As far as his road network went his new main north-south axial road was blocked by the new railway marshalling yard built in its way. Further the through route of Kingsway/Queensway, created by his successor, proved a much better solution to traffic which Abercrombie appears to have routed through the town centre.

As I stated above the notable success of Abercrombie's plan must, however, lie in his definition of the land area S&FUDC must control in order to create the anticipated town. This is not, however, recognised in the SSDF. Other things he wanted were a network of children's play areas so that no child was more than a ¼ mile distant from one. The western cliff he proposed as playing fields, woods and parks not because he wanted to create an "uninterrupted band of landscaping" but largely because he didn't believe it economic to build on. Neither was all of this a "greening strategy" per se, he made no suggestions for the parts of the town already built in terms of redevelopment. The large "Central Park" that exists now is absent from his design too.

¹²⁹Unfortunately this link no longer exists.

Of course the major thing left out of this potted history in the SSDF is Abercrombie's absolute insistence that no residential development should take place west of Scotter Road on the floodplain, a rather inconvenient piece of information when the SSDF is dedicated to doing just that.

So, not unusually, we see that the history of the development of "Scunthorpe" has been selectively shaped to prepare us for the proposals and conclusions later on in the document. Nevertheless this re-telling of what we already think of as the known subconsciously helps confirm the correctness of the future conclusions the document makes. What they are really doing is unfolding both the past and the future in a way that gives the appearance of alignment. However, as I have demonstrated, their historical view is partial, skewed, and in some places plain wrong.



Plan abarring proposed system of small children's playgrounds: the efficiency circles have a radius of $\frac{1}{2}$ mile: the playgrounds on area of abast 2 areas based upon a minimum of 30⁴ of play space per child. The plan isomposedes large areas laid out for baseling selectors

Figure 53 Page from the "Town Planning Review", 1923 showing Abercrombie's suggested positioning of children's playgrounds so that no child was more than ¼ mile from one. There is no suggestion that they are connected to each other per se. Public open space is mainly confined to the western slope, which Abercrombie felt unsuitable for housing. This is one of the few "Scunthorpe" drawings that Abercrombie chose to publish. (P. Abercrombie 1923)

Perhaps the real failure in the SSDF document, if it were to build on "Garden City" thinking, is the failure to realise that the drawing included on page 7, Howard's "group of slumless smokeless cities" could be a solution and that Scunthorpe is at the centre of a group of villages that have already been expanded as dormitory or semi dormitory settlements, as car ownership increased post WW2, and could form the basis for a similar group of settlements as opposed to a bolt on extension. Whereas I have suggested that Abercrombie's strongest contribution was to see Scunthorpe at the centre of an expanded area it needed to control, the problem with the SSDF is that it fails to take that further.

This is not necessarily the fault of the people who created the document but is a constraint of the "Renaissance Town" programme which begat it.

On page 35 we see that a further expansion of the term "*Garden Town*" is made. Scunthorpe is to be a "*New Century Garden Town*". In that title we have a curious mix, we have the whole notion of "Garden Town" being historically linked to Abercrombie Howard and the Garden Cities movement, this being done to give Scunthorpe an historical and intellectual planning gravitas, yet because this is a document about the future and not the past it is felt necessary to give those words some other words to qualify them.

It is interesting to see the quote (in the SSDF) on the right of the page: ""A Garden City is a town designed for healthy living and industry ... of a size that makes possible a full measure of social life." Garden Cities & Town Planning Association 1919". It is tantalising to think that someone has taken this quote because it links the word "town" to "Garden City" and thus gives legitimacy to "Garden Town" but perhaps this is coincidence. However if we unearth the full quote we find an important bit missing. The statement and its origin can be found in the preface, written by F.J. Osborn, to the 1919 edition of "Garden Cities of To-morrow". He states that Howard and the Association were concerned about the misuse of the term Garden City and so a short definition was adopted in 1919 thus: "A Garden City is a Town designed for healthy living and industry; of a size that makes possible a full measure of social life, but no larger; surrounded by a rural belt; the whole of the land being in public ownership or held in trust for the community." Clearly the missing section, underlined, would make no sense in the context of Scunthorpe and is thus omitted. Of course the town was already more than twice the 32,000 population that Howard conceived for a "Garden City" and in excess of the 58,000 he saw for "Central City".

Osborn also states, in relation to the term "Garden City", that "Howard, who chose the term as meaning as much a city in a garden – that is surrounded by beautiful country – as a city of gardens," (1945, p 26) Clearly this, too, is inconvenient for the SSDF as the focus is on further "greening" within the town which aligns the concept more with a "city of gardens" rather than a "city in a garden". We see this in the prominent quote under "New Century Garden Town" where it says "To create a cohesive green structure and a network of sustainable connections for people and nature." (unattributed). Clearly Howard did not feel that anything in that statement was essential for his short definition.

Ideas centred on the modern use of the word "green" were being conflated with the "garden" part of "Garden City". At the bottom of page 35 are the three "*principal elements of the New Century Garden Town*", which are: "*The Green Structure, Renaissance Routes* (and) *Gateways*". None of which has relevance to the origins the SSDF has pinned to "Garden Town". A definition of a narrative could be the citing of historical events, the linking of them to present events, and the extrapolation of that to the future and this seems to be what the SSDF is doing. Unfortunately the linkage is rather weak.

Of their legacy they write: "Scunthorpe's existing green structure is substantial, which is both an asset and a burden." The "burden" presumably being the maintenance cost because later on they write: "As with many towns across the country capital investment is relatively small for open space and resources for maintenance are stretched." We see in the SSDF where two interests see mutual cause and reinforce one another. That is to say the desire to cut costs on maintenance works with some ecological "green" thinking in that, for example, a wildflower meadow alleviates the need for regular cutting/weeding whilst at the same time it is able to be said that it provides important habitats and as such provides environmental benefits. The interesting thing about this is how coalitions form around words or groups of words where mutual benefit is perceived. Thus the fiscally

minded latch on to words like "green", "environmental", "sustainable" because it enables them to make cuts, whilst the ecologically minded can also offer support. Meanwhile the uninvolved see these words and actions apparently gaining traction as "progress", unaware of the divergent undercurrents. These coalitions of mutual benefit around narratives are the way courses of action are enabled and that in order to be successful a narrative must align with an economic rationale.

Returning to page 36 of the SSDF we note that "Abercrombie's unfinished legacy" makes another appearance in order to lend legitimacy to the proposed linking of existing open spaces. Abercrombie's writings whilst he is working with S&FUDC do not suggest he needed the parks to link up, we have already noted the topographical restriction he felt needed addressing. In his Scunthorpe plan he goes to considerable length working out how many football pitches are required for the population because he feels that vigorous exercise is an important mental and physical health benefit. I don't think that it is going too far to see the other green spaces he proposes as coming out of the English Romantic Landscape tradition associated with Arts & Crafts and much more to do with human phenomenology than ecological concerns. His campaign to establish the Campaign for the Preservation of Rural England¹³¹ in 1926 would seem to have been more about development control than environmentalism per se.

Government returns to the "Garden City".

The SSDF was, then, the blueprint that was adopted for the future development of Scunthorpe it was justified on spurious connections to the "Garden City" narrative. But in 2014, before any of the Lincolnshire Lakes development had been started, the coalition government produced a paper called "Locally-led Garden Cities" (Department for Communities & Local Government 2014) in which it asked for expressions of interest and mapped out the areas of government help available to a suitable scheme. A section concerning definition is reproduced below with underlining by me:

"What do we mean by 'Garden Cities'?

6 There are many reasons why local areas and communities should embrace Garden Cities. As well as the many benefits for future residents, a major Garden City is an opportunity for councils to take a strategic development decision about how they should meet housing need over the next decade and beyond. For existing communities, this offers the opportunity to plan to maintain and extend what people value most: high quality design, appropriate infrastructure and accessible green space within towns and nearby. However, we recognise that for any new settlement, there will be some disruption during development; local areas will need to consider how to engage and respond to the concerns of existing residents during this phase.

7 There has been a great deal of debate nationally in recent years about how large scale new settlements could and should be delivered, and what their guiding principles should be. <u>The Government does not wish to impose any definition of</u> <u>what Garden Cities are, but instead intends to work with localities to support them</u> <u>in developing and delivering their own vision</u>. Localities may find it helpful to consider some of the thinking which has already been done by bodies with an

¹³¹ Now the Campaign for the Protection of Rural England or CPRE.

interest in this area. For example, in the view of the Town and Country Planning Association, at the heart of the Garden City concept is the development of holistically planned new settlements which enhance the natural environment, tackle climate change and provide high-quality affordable housing and locally accessible jobs in beautiful, healthy and sociable communities. The Town and Country Planning Association have set out a number of principles that localities may wish to consider:

- strong vision, leadership and community engagement
- land value capture for the benefit of the community
- community ownership of land and long-term stewardship of assets
- mixed-tenure homes and housing types that are affordable for ordinary people

• a strong local jobs offer in the Garden City itself, with a variety of employment opportunities within easy commuting distance of homes

• Beautifully and imaginatively designed homes with gardens, combining the very best of town and country living to create healthy homes in vibrant communities

• generous green space linked to the wider natural environment, including a surrounding belt of countryside to prevent sprawl, well connected and biodiversity rich public parks, and a mix of public and private networks of well-managed, highquality gardens, tree-lined streets and open spaces

• opportunities for residents to grow their own food, including generous allotments

• strong local cultural, recreational and shopping facilities in walkable neighbourhoods

• integrated and accessible low-carbon transport systems – with a series of settlements linked by rapid transport providing a full range of employment opportunities

8 In essence, we think Garden Cities are liveable, viable, modern communities with the resident at the centre of planning. In addition, previous experience of large scale settlements suggests that there are particularly important considerations around local support, scale, connectivity, delivery arrangements, and land. "

We can see that the bullet points, provided by the Town and Country Planning Association, bear strong similarities to Howard's original ideas, which is not surprising as the TCPA¹³² was formerly the

¹³² From 1941

Garden Cities and Town Planning Association¹³³ which was formerly the Garden City Association¹³⁴. But more interesting and somewhat baffling is the government had no definition of what a "Garden City" is, applicants are invited to tell the government what they think a "Garden City" is!

The TCPA bullet points still emphasise community ownership, engagement and capture of land values, all things Howard would have recognised, whilst including the more recent and growing additional meanings of the word "green", with important buzzwords such as "biodiversity", "low-carbon" and "integrated".

The application period for the above ran from April 2014. The paper was withdrawn in September 2016 and replaced by a similar paper in March 2016 and in July 2016 North Lincolnshire Council applied for Garden City status for the Lincolnshire Lakes project.

The replacement paper contains this revised statement:

"What do we mean by garden villages, towns and cities?

10. We do not consider that there is a single template for a garden village, town or city. It will be important for the new community to establish a clear and distinct sense of identity. We want to see local areas adopt innovative approaches and solutions to creating great places, rather than following a set of rules.

11. Equally, we are clear that this prospectus is not looking to support places which merely use 'garden' as a convenient label. Rather, we will support local areas that embed key garden city principles to develop communities that stand out from the ordinary. We do not want to impose a set of development principles on local areas, and will support local areas in developing their own vision for their communities. But, we will want to see evidence of attractive, well-designed places with local support." (Department for Communities and Local Government 2016)

We notice that the TCPA "guidance" has gone but we also see recognition that the word "garden" might be just appropriated to promote any kind of development. Thus we see that the government is still not clear on what "garden city" (towns and villages are also included) actually means but is aware that it could be misused. But so long as projects are "well designed" and have "local support" they will probably qualify.

¹³³ From 1909

¹³⁴ From 1899

The Council applies for "Garden City Status"



Figure 54 Any interest in a "garden lake"? Poster to promote public consultation on applying for Garden City Status for the Lincolnshire Lakes. Photo copyright the author.

The council held two general public consultation opportunities prior to their application at which explanation of the process was limited to a short briefing paper (reproduced below). I attended and consulted with a planning officer over the bid. It transpired that, in order to qualify, the council had needed to include additional smaller outlying schemes to bring the previous number of 6,000 homes for the Lincolnshire Lakes development up to a required 10,000 homes.

A briefing paper was available and some key extracts follow below:

"What exactly is Garden City Status? – Essentially is a <u>badge</u> that allows the devolution of planning powers to the LPA level through the New Towns Act and ATLAS support.

What will status mean in terms of extra support – *The support is from the HCA* – *ATLAS. Its officer time and expert advice.*

.why are we going for it other than Government asking for proposals from local authorities – It's the associated powers and the <u>badge</u> we are after.

. what is it we actually want people to comment on – seems unclear to me do you want them to come up with ideas/ if so on what? – I think we want people to provide support for the project and add ideas to the prospectus. I don't think we are asking whether we should be bidding at all.

.....

The transformational principles of the Lincolnshire Lakes development are:

-Residential development including affordable and sustainable low density housing.

-Business developments that diversify the employment offer of the town, including offices with an attractive waterside setting.

-Flood alleviation to both the new community and the existing Trentside villages through mitigation provided by the water bodies.

-Community facilities (including schools, health facilities, libraries, community centres, ect.)

-Leisure facilities (including water sports, football stadium and recreational opportunities).

-Sustainable tourism associated with the lakes unique waterside landscape setting.

-Green infrastructure throughout which compliments and improves the location's biodiversity character and

-Sustainable transport infrastructure through improved access into the town, strong public transport, park and ride facilities and walking and cycling routes within the site that provide direct links to the existing networks. (See fig.62 Appendix B, my underlining.)

What is quite clearly stated is that NLC see "Garden City Status" as merely a "badge" with which they can access ATLAS (Advisory Team for Large ApplicationS) and other planning resources as well as powers for the authority which, under the New Towns act include compulsory purchase. In some respects NLC would become the development agency. These significant powers that the NLC would acquire are hidden behind softer language like "*bring forward development faster*". Clearly NLC wants these powers but it is not really interested in whether or not the public should debate if it's a good thing for it to have them or not. What it is interested in is getting your support for the scheme.

As to the list of LL principles you will note how well this dovetails with the sorts of policies the government are in favour of. It would, of course, be a rather futile application if it did not. Third on the list we again see the flood alleviation which I suggest was the main driver for the scheme in the first place.

Scunthorpe & the "garden city".

We have travelled a long way from Read in 1910 wanting to develop Scunthorpe into the kind of development he saw in Hampstead Garden Suburb, which he considered to be a "Garden City", through to NLC describing "Garden City Status" as "just a badge".

Read was, I think, trying to make the expanding Scunthorpe a more picturesque place and his reasons must surely have included making the areas of future housing a counterpoint to the areas of

operations in iron & steel, although we can't know for certain. I will be discussing this general attitude in the next chapter. Read's narrative was a public one but for a relatively small Scunthorpe based audience and in this case not including Ashby and parts of Brumby.

Abercrombie brings with him some associations to "Garden City" but, as we have seen, the narrative he comes up with is not particularly connected to anything Howard had to say and is one that is largely played out in private between himself, the council, and the Ministry, only breaking out into the public domain at the time of enquiry where the audience is limited. As we have seen above, though, much will be later claimed for his narrative.

Hornsby's "Industrial Garden Town" narrative is a public narrative aimed at a wide audience. It's about what Scunthorpe is and why you should come there, it's about attracting people and industry. Somewhat ironically its objective, like that of Abercrombie's, seems to have been hobbled by the requirements of operations in iron & steel. Ironic because a clear motivator for it was to capture some of the investment going into New Towns such as its competitor Corby. It was a competent effort though its achievements were limited and after a surge of activity in the mid-sixties it was neither exploited nor replaced until the 2020's. I have stated that this is largely due to a combination of poor economic outlook and the taking away of the ability of an elected body in Scunthorpe to produce a narrative with the creation of Humberside County Council.

The return of a voice, with the creation of North Lincolnshire Council, led to a new opportunity for the creation of a narrative for Scunthorpe but drawn in, understandably, by government needs to find a narrative to promote more housing and other government objectives on flood relief, it revised its historical narrative to align better with those governmental objectives. As far as any "garden city" narrative goes today we see that this has now openly been admitted to be just an empty "badge". What we have been left with is a narrative called "Lincolnshire Lakes" but as we are approaching 20 years since this was first revealed and not one lake or house has been built one must wonder what the promotion of this has achieved. Whilst the "Industrial Garden Town" narrative at least tried to unify the major operations and the urban area the "Lincolnshire Lakes" narrative pushes them away completely and, indeed, distances itself with the existing urban area. We can but wonder if this has been a wise move.

Chapter Seven

Conclusions.

Principles necessary to the investigation.

A key principle of the investigation was avoid falling into the trap of thinking that what exists today, the creation within Manley of an urban area of the scale and nature of that now called Scunthorpe, was somehow inevitable.¹³⁵ On the basis of the foregoing it is absolutely clear that this was not the case. Multiple strata, in the realist sense, had to emerge, multiple technological, scientific, and geological aspects had to come to a point where their emergent powers could influence one another. Multiple actors had to emerge, motivated, and capable of working towards their differing goals. Landholdings were restructured in light of those goals providing potential for land to come into the orbit of those actors who were able to respond. Multiple narratives emerged as all this progressed. The thesis draws out the unlikely nature of this process at every turn.

This leads to a second potential trap and that is talking of a "Scunthorpe community" that has a voice. No such thing exists except in the minds of actors who try to will it into existence to bolster their own narratives. I have chosen to describe the events as occurring in Manley as this is a suitably neutral and broadly defined space within which events occur and I have introduced the term Scunthorpe, which as a name for the greater urban settlement was in itself contested and never certain until given "official" sanction, as it becomes defined (differently) by government actors, both local and national as well as by actors involved in the major operations. I also use the name Frodingham (the name of the village that shared a contiguous border with the village of Scunthorpe) because this was the name initially favoured by operations in iron, hence the Frodingham ironfield etc.

This same problem of making assumptions about "a voice" also applies to other collective actors. One cannot make the assumption that an official body or an operation puts out a narrative that such a narrative "speaks for" a unified "community" because it doesn't, however we must also realise that these narratives do have meaning and may have effect.

A further trap to avoid falling into would have been to assume that narratives produced by "official" bodies of some sort which reference a place, i.e. place promotion/marketing, large scale planning narratives (such as the "Lincolnshire Lakes", examined in chapter six) or their counter narratives (should they be produced), are the only narratives that matter in the creation of place or urban area. Indeed some, such as the 1960's proposals for a large urban area at the head of the Humber and another for one on the South Bank of the Humber came to nothing. All that has gone before in this thesis confirms that there are many and varied narratives occurring at different levels, times, and by different actors that are important. Further it shows that the most decisive have been those generated by operations.

¹³⁵ Historic England 2017 par 1.50 refer to this as "some of the most remarkable settlement change of the entire period" since 1851.

Necessary analytical steps and pre-requisites.

1) Develop an overall methodology for identifying and characterising narrative in use in different contexts.

The broad framework of Critical Narrative Analysis has informed my reading of narratives covered in this thesis but much work has been needed to make it operations. I have examined the narratives utilising the six related headings developed in chapter two, namely; Actor, Content, Location, Time, Reason, and Contingency. This brought the narratives and the functioning of operations into the same frame of reference. Where I deemed it necessary to the understanding of events I moved from looking at narratives in a broad sense to examining them at the word or sentence level in order to pull out the nuances, implied meanings, and intertextuality. The choice of which narratives to examine and at which level they were assessed was guided by what I felt the narratives role within a causal structure was.

2) Form a view of Operations.

I developed a view of "the economy" as operations engaged in for the pursuit of a surplus, and by surplus I wrote that this is simply more of something that those involved in operations deem to be an objective of the operation (It might be more product, it might be a higher share price etc. or a combination thereof. I explained this in detail in chapter two so I will not repeat that here. I did this because it enabled me to cross boundaries between feudalism and capitalism as modes of production as well as between agricultural and industrial "sectors", as these were boundaries that I did not see as being particularly helpful. It also brought into sharper focus the emergence of causal mechanisms as understood within critical realism.

3) Deal with relations in space and time.

The thesis operates two essential views of time. The first view of time is in the realisation that operations must inevitably seek to contract space and time in order to reduce costs and avoid devalorisation of capital, doing so in part through technology. Operations will always seek to shorten the time between production and payment, between product and market, and so forth and to do this operations exploit technology, for example railways and credit cards. Harvey (2016), comments on Marx, as anticipating that aspect of capitalism. We, however, are concerned with collapsing of time and space, enabled by technology, as an enabling factor in creating connectivity over wider space. Thus we see that it would be difficult to consider the creation of place without having developed or utilised a theory of operations (or some other theory of economic activity against which the role of narrative might be related) because of the integral nature of space and time to operations.

The second view of time is the study of events over the "longue durée". It is only by looking at this subject that we can see the contingent build-up of strata and the enabling mechanisms that lead to the formation of an urban area. In other words I show the flow of people, capital, technology and

narrative, across space and over time to manifest themselves in the creation of a place and thus potentially forming the basis of narratives of a place itself. A "history of Scunthorpe" therefore emerges as a contingent product.

Narratives and categories of narrative which may be demonstrated to have causal effect and in what context.

The narratives that I have considered, I should remind you, are, of course, are from the mid-19th century through to the present and are particular to Britain. It might be useful for us to broadly categorise the narrative that we have encountered and perhaps the most useful way to do that is based on i) what kind of actor is projecting the narrative, individual, corporate, governmental etc. and ii) what the intended audience is, another individual, internally within a corporate entity, a section of the public etc.

In the case of operations in ironstone, iron, and later steel the truth of the narrative that, say, superior bridges, ships etc. could be built with iron was verified to those with potential to use it– it was seen to be true. You will recall that in chapter two we looked at pragmatic versions of truth and the verification of narratives. This verification of the narrative of iron and later steel created rising demand for those products which in turn required technological solutions to produce greater surplus. This in turn moved operations across space over time, thus eventually creating potential for the exploitation of the known, but not fully understood, Frodingham ironstone deposits.

It was then that we had the emergence of narratives about operations in Frodingham promulgated by actors involved in the attempt to establish and grow those operations (Leading to the utilisation of phrases such as the "Frodingham ironfield", "Frodingham deposits", and "Frodingham iron" both nationally and internationally). Those narratives were primarily between those individual actors with a capacity to assist in that process of growing those operations but they did begin to appear in print in order to appeal to an emerging class of investor actors

We looked at the narratives of "discovery", which were primarily aimed at other actors involved in similar operations but which drifted into a wider public consciousness through their reproduction in newspapers. We saw that such narrative reproductions were almost always at odds with reality. It was also clear that there were similarities between the "discovery" narrative of the Cleveland deposits and those used approximately ten years later for the Frodingham deposits. These narratives are about "professional" standing as locators of exploitable reserves when they were deployed by "mining engineers" but as mechanisms to minimise the importance of upper class involvement when deployed by others. Thus altering the perception of which actors were in an enabling position and further implying that discoveries are happenstance rather than the result of informed endeavour dictated by the particular requirements of operations.

It is also important to note that these narratives of "discovery", although they implicate a location, are not narratives of a place because, as we have seen, differing locations and actors can be substituted into what is essentially the same narrative.

More typical of the narratives of actors involved in operations are those we read of Winn and Adamson, with each having a conflicting narrative concerning the development of ironmaking in Frodingham. Winn, as we noted, was driven by debt to utilise his assets to his best ability and to seek to leverage as much control over them as was possible, and as quickly as possible. This began with having to convince those holding mortgages over his land assets to let him lease land to others for extraction, subsequently extraction and smelting, and following that smelting and purchasing ore from him, and culminated in having his own furnaces. All this, as well as building his own railway line, within the space of about twelve years. It cannot be stressed enough how crucial Winn's goal of locating smelting on the orefield (or on other adjacent land of his ownership) was. Winn's narrative completely eclipsed all the contemporary narratives about what economic role his land was to play. It was no longer to follow the "agricultural" narrative of Young (1813 (1970 reprint)) or Healey i.e. that of warping and agricultural improvement promoted by the Board of Agriculture. It is entirely possible that without Winn and his railway no exploitation of the Frodingham deposits would have taken place at all or that only extraction, rather than smelting, may have taken place at some time when demand was ramped up, such as during either world war. In which case we could just be considering a hole in the ground.

Once the extent and the quality of the ore was determined (in general), and the railway is built, and the smelting is established it emerged that the ore is cheaper to extract and process than any other UK deposit, which in turn leads to it eventually accounting for more than ten percent of all ore raised in the UK.

Adamson felt that producers, like him, should have the ability to site works where they wanted, buy ironstone from various owners as they saw fit, and have railway companies build lines for them to give them greater flexibility to "open up fields". These and similar competing narratives were mostly restricted to a narrow audience and represented one that would have dispersed ironstone production into small and vulnerable units, giving us a very different settlement pattern such as we see in areas of the Northampton beds like Colsterworth.

As to the narrative concerning the quality of the ore, it did reach a wider audience when legal proceedings were started by Adamson and subsequently in newspaper reports quoting Adamson expressing his opinion at a meeting of engineers - *"The earth is the Lord's and the fullness thereof", except in Frodingham, which is Mr. Rowland Winn's"* (Hull Packet and East Riding Times 1876).¹³⁶. That narrative was an existential threat to the orefield as it suggested that the quality of the ore was not sufficient for surpluses to be made. By the time Adamson eventually took action it would seem that there was enough momentum behind the orefield to counter his narrative. Enough other producers, such as Dawes and Cliff (both actually using their own mining operations and thus able to be selective) were verifying Winn's narrative to make it true and Adamson, although not the only producer to have concerns, looked like an outlier.

Another significant change of narrative was the ability of Scunthorpe steelworks management to portray itself as a port based steelworks to senior management in BSC and the government despite being significantly inland from the sea. Key to this was the railway line to Immingham docks, the presence of which is down to Winn. To paraphrase Heraclitus, "the (rail) road out of Scunthorpe is

¹³⁶Reported elsewhere too. What Adamson is saying is that if the ore was more carefully selected from the face it could be amongst the best in Britain.

also the (rail) road into Scunthorpe". This change of narrative saw significant investment in the steelworks but also significant restructuring and redundancy. Somewhat ironically the closures that came in the late '70's and early '80's also saw the complete closure of steelmaking at Corby, Scunthorpe's once feared rival. But this narrative, of being a port based steelworks, was one of operations, particularly as the restructuring plan called for the ending of the original reason for the location of production in Frodingham, that of the use of local ore, and hence severing the need for operations to be in that physical location.

This leads us to my first research question.

(1) When and in what ways does narrative have causal power in the development of an urban centre later called Scunthorpe?

I found, in answer to guestion one that the narratives that had causal power in the creation of an urban centre were the narratives within operations, and the narrative of those actors involved in them. We can look back, now we have a thing called Scunthorpe and assign them to the creation of Scunthorpe but in reality these narratives are mainly implicated in the creation of operations rather than of place. Those more concerned with place emerge later. That place could have been the expansion of another Winn controlled village in Manley such as Appleby, or Gunness, or if smelting had been located on Winn land on the banks of the Ancholme River then perhaps Brigg, or if Robey had been more successful then it might have ben Kirton. The location of the smelting would appear to be crucial and any other potentially exploitable reserves required for operations could have, indeed almost certainly would have taken Scunthorpe's place if there hadn't been development of the Frodingham orefield. Changes in demand and technology within the iron industry mean geological deposits acquire floating potential which may or may not be crystallised, that is to say that the orefield at Frodingham has been in the same physical and chemical state for millennia but had no "value" until developments in process, use, and market emerge to bring it to a point where it can be said to have potential but, as we have just discussed, that potential might never have been actualised. Indeed we can, with reasonable confidence, say that orefields of this broad type in the UK has floating potential from about 1850 to 1980, before which technological changes had not emerged to make them exploitable and after which technological change had emerged that gave potential to higher grade foreign ore as a replacement. These form the preconditions within which the far more limited potential causal power of narrative may operate.

These narratives are only concerned with place in so far as operations require a location and a workforce. Winn's narrative was to regain control of his mortgaged land assets by developing his mostly ring fenced holdings in Manley (his land was mostly in a contiguous block). This development not only created a pathway for Winn to overcome his family financial problems but also created the potential for an urban area to develop. Adamson's alternative producer centric narrative, had it been enacted, would have dispersed and separated smelting from mining and consequently impacted on settlement patterns making an urban settlement of the ultimate size of what is Scunthorpe today less likely.

Nor must we forget that without Healey's narrative of warping (a technology in itself) being the future of farming then the land, under which the iron ore lay, would not have come under the control of Winn and no exploitation may have taken place. We also saw that it was technological change within the iron industry, facilitated by increasing demand, that moved the industry

geographically which gave the Frodingham deposits potential. Thus we can begin to see that there is some connection here between technological developments, the future orientated narratives they create and were created by, and their adaption by actors into their own personal narratives. We must remember that specifically with chemical and physical structure of the ironstone, the available technologies, the extent of demand for iron (for capital and consumer goods), and finally the power of narrative (given the context of semiosis) we can't be certain that such causal power will come into play in a particular place but we have seen the role of narrative that did and hence could have.

This brings me to my second research question.

(2) How and why did the urban centre, Scunthorpe, develop official public narratives associated with the "garden city" narrative, and with what aims and effect?

Firstly, following my discussion of "garden city" in chapter six and of its origins in appendix C, we know that in moving from ideas to concrete implementation key ideas forming the narrative proved at odds with the requirements of operations and were either abandoned or muted. As I have stated above the urban centre in Manley is dependent upon the prior development of extractive metal manufacturing. Put crudely operations develop in advance of urbanisation in Manley.

What the "garden city" narrative seeks to do is to turn that about and take the emergent potential of low value "agricultural" land and transform that along the lines of the narrative into low density urban settlements. In doing this it expects that small to medium sized, locationally fluid operations will follow. In many ways this is an expression of the phrase "If you build it, he (they) will come."

The preceding "model" settlements that are usually listed as precursors to the "garden city", and some of whose actors were also involved with the development of "garden city", were intimately tied to and indeed owned, by operations in textiles, chocolate, soap etc. and thus were created for emerging operational requirements.

The "garden city" narrative has, however, no consideration for operations at scale or operations that are geologically based such as those that develop in Manley. So one has to ask oneself what are actors in Manley thinking when the associate themselves with "garden city"?

Let's remind ourselves who these actors are. Our first engagement is by a Scunthorpe UDC councillor (along with two other less enthusiastic colleagues). As such he was an actor with some potential to persuade the UDC in the area of planning and he was, along with many others, encouraged by the Ministry to visit an exhibition that they had devised and to subsequently visit the developing Hampstead Garden Suburb. Thus we see a crude attempt from the Ministry to promulgate ideas that it sees as an acceptable narrative through to actors with potential influence.

But was it a "garden city" narrative that the Ministry was promoting? Hampstead Garden Suburb was a controversial "variation" on "garden city" from its conception because of its nature as a suburb. What was actually being promoted under the "garden city" narrative by the Ministry was a particular form of town planning with a particular look, brought about by lower densities. Thus we already see the hollowing out of the "garden city" narrative.

We also saw that such a "garden suburb" design was suggested as being to highfalutin for an industrial town. This was different from it being ill fitted, in the sense that the original narrative didn't take account of such operations as were carried on in Manley. It suggested a "garden suburb" was too good for and possibly implies that it was too expensive for Manley. This was clearly a general problem that Unwin felt he had to eventually address (Nothing gained by Overcrowding 1912).

We next saw that before the end of WW1 operations in steel were being encouraged by government to provide ever greater surpluses in steel and it was recognised that this would require significant increases in labour and the housing needed for that. Increasingly, by this time, the version of "garden city" that has emerged through narrative processes within the various departments of government is backed up with legislative powers.

Following a crisis of oversupply in steel leading to severe stress on operations in Manley the "garden city" that operations was to provide was abandoned and it was being realised before 1921 that housing provision was increasingly difficult to justify under the forces inherent in operations (as mentioned in chapter two). For example we see in appendix c that Cadbury were only able to justify their model village because they moved out of Birmingham and utilised cheaper land.

If we consider here what the purpose of the use of the "garden city" narrative was at that time, we can conclude that it is, apart from a "Trojan horse" for town planning, a counterweight to the antiindustrial metanarrative that has been associated with "industrialisation" from its inception. There may be nothing much that we can do about the working environment you are subjected to during your shift but you can go home and sleep in paradise.

With the failure of the steel manufacturers "garden city" in 1921 we saw a clean break point between the provision of housing by operations and the take up of housing provision by local authorities and an invigorated private sector. The issue is less clearly seen elsewhere but was still happening across the country.

Somewhat controversially I attribute this "calving off" of housing provision by operations to the forces inherent in operations as outlined in chapter two. That is to say that within internal narrative debate in operations housing provision comes to be seen as non-core activity. It moved from an enabler of surpluses to a drain on surpluses. Let's be clear here, there was no single point at which an actor said "we're not doing it anymore; get the council to do it". But there come multiple points where actors present narratives along the lines of "we can either reline the blast furnace or we can build 100 houses, but we can't do both". Such practical narratives, over time and under particular conditions, drift operations out of housing provision except in exceptional circumstances.

But this process of restructuring productive operations had provided opportunities to unlock the power of entrepreneurs to enter house building and in so doing turn it into a large scale operation in its own right. This in turn develops its own various narratives of what the purpose of a house is and how it might relate to narratives forming around "consumer goods" and "leisure time" and, at the same time, as a stimulus to government through local authorities to widen their power by bringing in "housing provider" into their portfolio and further developing what will later become a "cradle to grave" narrative of a beneficial state. At this point it is pertinent to bring in the causal links I saw within the development of the urban area between the sizes of parcels of land becoming available

for development, enabled by the structure of landholdings emerging from enclosure onwards, and the small to medium sized landholders created by that, and the actors that enabled such as the builder, developer, and builder/developer within the provision of private housing.

At a very similar time we saw that the newly amalgamated council chose to flex its newly acquired powers firstly by clearly establishing, in something akin to a coup, Scunthorpe as the name for the urban area, which became the sole name for the area from achievement of Borough status in 1936 when the "& Frodingham" was dropped.

Shortly thereafter the council decided, based on enabling legislation and "encouragement" from government, to pursue a town plan. This "town plan" was to be a significant and defining narrative of a thing called Scunthorpe and its projection into the future, although as we saw it faced challenges. So it is really from this era that we see emerging narratives purporting to be about a thing called Scunthorpe and it is here that we could fall into the trap that I highlighted at the beginning of this chapter in believing that Scunthorpe "has a voice" or is a "community with a voice", it hasn't. What emerge are narratives the council (in connection with others) want to be projected for differing reasons.

We saw that the decision to hire a big name planner such as Abercrombie was likely heavily influenced by operations in steel. There is some evidence he may have been working for those operations on their "garden city" housing scheme. Abercrombie is not closely associated with "garden city", having only been involved in one scheme, where he was not the lead, that was at the time considered in the "garden city" genre. I have gone into detail about Abercrombie and his relationship to the "garden city" in chapter six and appendix c so I will not repeat that here but the important thing to mention here is the subsequent re-casting of him as a "garden city" designer in the "official" history of Scunthorpe, (Armstrong 1981) and in the various official reports promoting the "Lincolnshire Lakes". Indeed in the former he seems to be given credit for a housing estate that is designed by others. The reasons for doing this seem to be different in each case even though they emanate from similar actors. In the former case it would seem reasonable to assume that it was to enhance Scunthorpe's reputation by association with Abercrombie as a significant figure in British planning circles who reached into the wider public consciousness to a degree. In the case of the "Lincolnshire Lakes" the narrative is clearly using Abercrombie to retrofit a false continuity between what North Lincolnshire Council thinks central government wants to hear given that central government has itself returned to a "garden city" vision, despite admitting that it can't define what a "garden city" is. Following on from that we saw that NLC blatantly admitted that the term "garden city" was "just a badge" that would enable it to access funding and resources.

In between Abercrombie and the "Lincolnshire Lakes" we saw the "Industrial Garden Town" narrative that tried to allude to both the "garden city" and the subsequent "Newtowns" of the post war period. On the face of it this was a straightforward piece of place promotion but as I explained this had several facets to it. Despite the council of the day being dominated by steelworkers it saw the reliance on operations in steel as unbalanced and despite resistance from that quarter it strove to attract other operations of a different nature as well as attracting additional population. In so doing it sees it as advantageous to shift perception from the unavoidably obvious operations in steel to the low density urban area which is well provided with parks and "green" spaces and this is what the "garden town" is alluding to, quite correctly in this case. But the other facet of this is the

perceived competition for investment, both within operations in steel and for other operations, with Corby a designated "Newtown" and a town to which Scunthorpe had lost an integrated steelworks to in the 1930's.

The conclusion we can reach, then, is that the process of hollowing out of the "garden city" narrative, which begins almost from its inception, allows actors like Scunthorpe & Frodingham UDC, Scunthorpe Borough, and North Lincolnshire Council to weave a narrative that suits their ends around this empty signifier.

Reflections and opportunities for further study

I suggest that this research has been worthwhile though it has not been without its difficulties. Covering such a wide topic both in terms of the timespan, the spatial area over which the actors were engaged, and the diversity of topics contained within operations was, for a single researcher, time consuming. It produced too much data that made it difficult to condense into the word limit of a thesis. I am hopeful that I have been able to present this to the reader in a coherent form.

Having said that, though, I am at a loss as to how one could present such a layered argument in any other way. The layers of narrative concerning the formation of a place we call Scunthorpe stretch back in history and across space as well as including many operations and actors.

Another issue, one not confined to this study, is that in general the further back in time one goes the less data one is going to find. Indeed one can only deal with what survives and, of course, that may lead one down a particular path. I am reasonably certain that in this thesis I have not allowed that to happen. I went to considerable trouble to reach into the fine details of actors lives (business and private) to ensure a balanced view of them. Where actors chose to obscure their part in the development of "Scunthorpe", as with Abercrombie, I reconstructed their role from alternative sources (in this case the Ministry Files). Where their contribution was present but degraded, as with Adamson, I utilised Photoshop and Lightroom skills to reveal text and bring their contributions out.

I scoured many social media history/memories sites for both photographs and information. I constructed family trees of actors on Ancestry and confirmed details on the British Newspaper Archive. The information required to conduct this research was to be found in a multitude of places, some of which were reasonably novel.

As I stated in chapter two, Critical Narrative Analysis guided my thinking. You will also recall that I made some additions of my own to it, also in chapter two. I think these were absolutely necessary to make it a viable prospect for a study as wide ranging in time as this one. CNA seems to have primarily ben used in studies where interviews were a significant part of the research, something that would have significantly skewed the research in my case or significantly shortened the time period available for study.

Thus I think my contribution to extending CNA is a particularly pertinent secondary outcome of this thesis. My additions may benefit from further refinement but they certainly extend the scope for CNA into areas that involve deeper timeframes.

Thus we see that this thesis, in addition to its contribution to the understanding of narrative and both in its methodology and its conclusions, could be of use to anyone studying causality over deep time. Further this study could be of use to those studying economic change over time, such as "evolutionary economic geography", as well as those with interest in the making and shaping of "place".

The assertions I made with regard to the sizes and numbers of land plots available, the implications for capital required to buy them and the creation of actors to do that over time seems as though it might be an area for further study. This would have relevance not just for the history of housing construction but, potentially for the present state of the housebuilding industry (as well as in agriculture) where there appears to be an issue with land availability for new entrants.

But perhaps the main issue for further study is not, as with this thesis, how narratives played a part in the creation of a place but what we can do to utilise narrative in a better way, a way that goes beyond place marketing, to sustain existing places in the face of the fluidity of employment dictated by globalised capital. How we create a narrative of a place that is both flexible to technological change and yet rigid enough to enhance the security of those who live there now and in the future. Not to market or sell place but to validate it.

Appendix A. Family Succession Chart, Major Landowners

	Family	Beauchar 3rd	4th	5th	6th	7th	8th	Winn/St. Charles	1st	2nd	3rd	4th	Sheffield 5th	6 th
	Person Born	Earl 1784	Earl 1784	Earl 1829	Earl 1830	Earl 1872	Earl 1903	Winn 1795	Baron 1820	Baron 1857	Baron 1893	Baron 1916	Baronet 1824	Baronet 1876
	Died	1853	1863	1825	1850	1938	1905	1874	1820	1919	1957	1984	1824	1946
Year														
and age in														
year	1850	66						55	30				26	
	1851	67						56	31				27	
	1852	68						57	32				28	
	1853 1854	69	70					58 59	33 34				29 30	
	1855		70					60	35				31	
	1856		72					61	36				32	
	1857		73					62	37				33	
	1858 1859		74 75					63 64	38 39				34 35	
	1860		76					65	40				36	
	1861		77					66	41				37	
	1862		78					67	42				38	
	1863 1864		79	35				68 69	43 44				39 40	
	1865			36				70	45				41	
	1866			37				71	46				42	
	1867				37			72	47				43	
	1868 1869				38 39			73 74	48 49				44 45	
	1870				40			75	50				46	
	1871				41			76	51				47	
	1872				42			77	52				48	
	1873 1874				43 44			78 79	53 54				49 50	
	1875				45			,,,	55				51	
	1876				46				56				52	
	1877				47				57				53	
	1878 1879				48 49				58 59				54 55	
	1880				50				60				56	
	1881				51				61				57	
	1882				52 53				62				58	
	1883 1884				55				63 64				59 60	
	1885				55				65				61	
	1886				56				66				62	
	1887 1888				57 58				67 68					10 11
	1889				59				69					11
	1890				60				70					13
	1891				61	20			71					14
	1892 1893					20 21			72 73					15 16
	1894					22				37				17
	1895					23				38				18
	1896 1897					24 25				39 40				19 20
	1897					25 26				40 41				20
	1899					27				42				22
	1900					28				43				23
	1901 1902					29 30				44 45				24 25
	1902					30				45 46				25
	1904					32				47				27
	1905					33				48				28
	1906 1907					34 35				49 50				29 30
	1907					36				51				30
	1909					37				52				32
	1910					38				53				33
	1911 1912					39 40				54 55				34 35
	1912					40 41				55				35
	1913					42				57				37
	1915					43				58				38
	1916					44				59 60				39
	1917					45				60				40

1918	46	61		41
1919	47	62		42
1920	48		27	43
1921	49		28	44
1922	50		29	45
1923	51		30	46
1924	52		31	47
1925	53		32	48
1926	54		33	49
1927	55		34	50
1928	56		35	51
1929	57		36	52
1930	58		37	53

Figure 55 Succession of the major landowners.

Appendix B. Additional Maps & Documents.

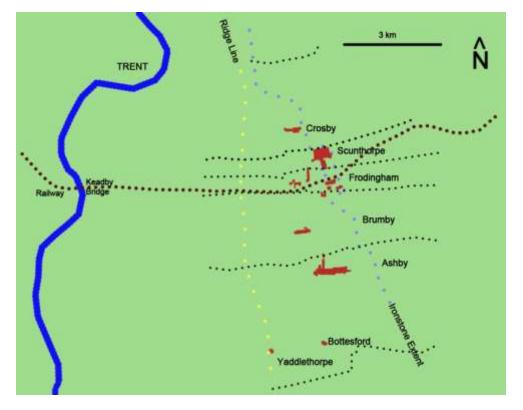
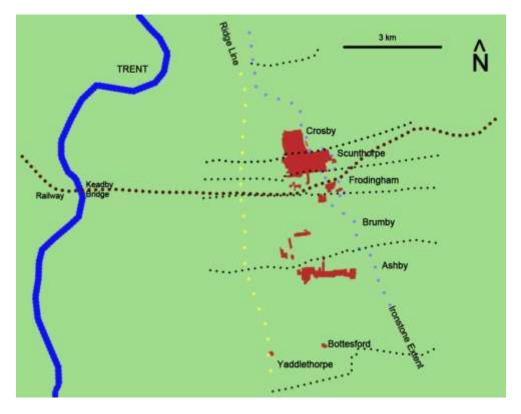
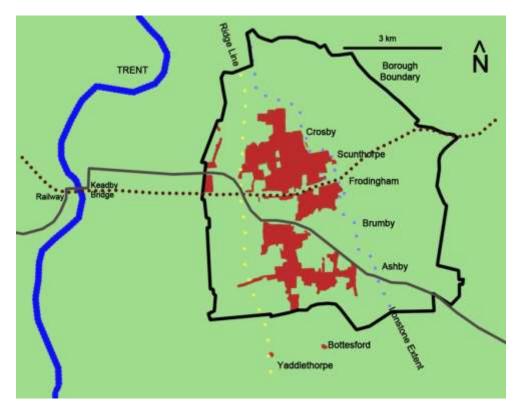


Figure 56 (below) A sequence of maps showing the major changes in the development of Scunthorpe. Derived in part from (D. Pocock 1970) redrawn, enlarged, coloured, and expanded by the author.

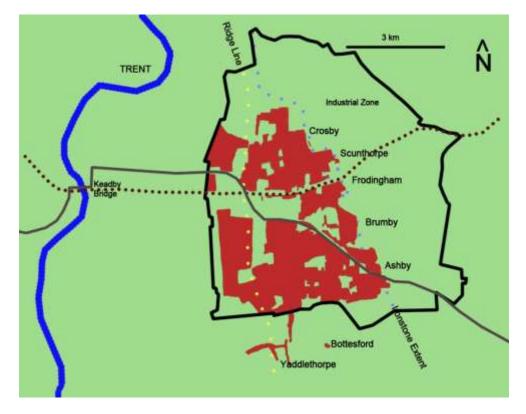
Above is the situation circa 1885. Some new development has taken place in Scunthorpe (by Parkinson, Wells-Cole, and a smaller bit by Winn. New Frodingham and New Brumby have been built.



Above is the situation circa 1919. Parkinson has developed west in Scunthorpe and Sheffield has made a major intervention connecting Crosby to Scunthorpe.



Above is the situation circa 1939. Scunthorpe Borough Council has been formed and a through road has been constructed.



Above is the situation circa 1969. Significant amounts of council housing have now been built.



Above is the situation today. The as yet unbuilt Lincolnshire Lakes is shown as is the extent of the industrial zone covering existing and former works, quarries, and so forth.

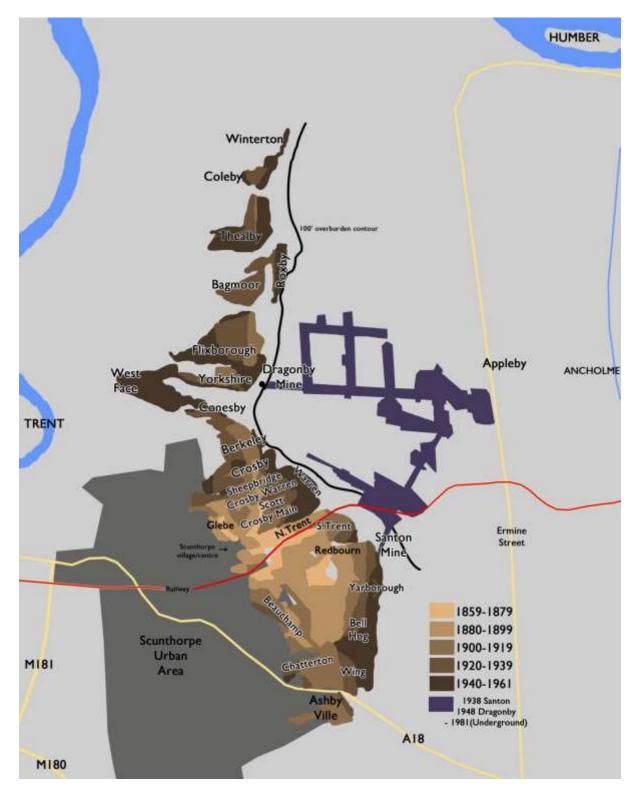


Figure 57 Extent of ore mining operations with dates. After Pocock (D. Pocock 1964) with the addition of underground mines and colour by the author.

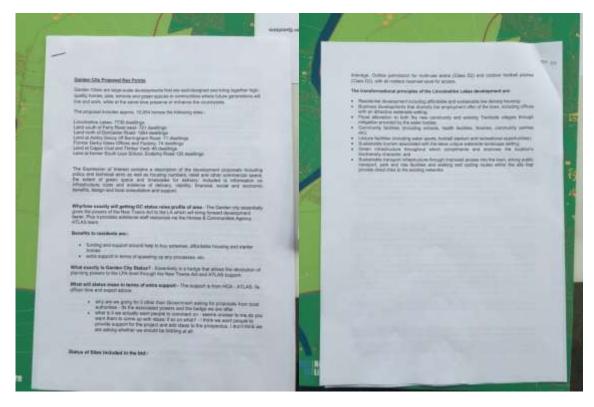


Figure 58 Relevant portion of Garden City Status document. This is not available online so reproduced here.

Appendix C. The development of the "Garden City" Narrative.

Origins and development of the "Garden City" narrative.

Scunthorpe was formed by the amalgamation of five villages (Crosby Scunthorpe, Frodingham, Brumby, and Ashby) and as we shall see this involved narratives that were for the most part concerned with operations in iron and some of which was private (i.e. the narratives of particular private individuals as economic actors). A major narrative that Scunthorpe engaged with multiple times, from 1910 to the present, is that of "garden city". But it did not do that in the same way or for exactly the same reasons over time. Neither is it ever recognised in any official way as being a "garden city". In order to understand how Scunthorpe did this we must first tear apart "garden city" and find the threads of meaning that are knotted together to make it and then trace it from that *point de capiton*¹³⁷ through time explaining the shifts in meaning that take place. Only then can we contextualise the shifts in the meaning that Scunthorpe is applying in response to these threads.

The "garden city" narrative is associated with Ebenezer Howard who wrote a text, first printed in 1898, titled "To-Morrow: A peaceful path to real reform" (1898 (2010)) (implying that there are other paths that are not peaceful, leading to class conflict).

¹³⁷ See: (J. Lacan 1993) "quilting points" a word or phrase that comes to act as a banner for a wider meaning or thread. Has similarities with Schiller's expanded definition of narrative referred to earlier.

Howard spent approximately five years, from the age of 21, in America, firstly on a failed farming enterprise in Nebraska and then as a court reporter in the city of Chicago. Upon returning to London he became a stenographer for Hansard, taking shorthand of parliamentary proceedings. He seems to have both cultivated friendships amongst influential people of the day and also read widely on social matters. Howard lived in a London that was experiencing high levels of inward migration bringing with it overcrowding and unsanitary conditions. This population shift from the countryside to the towns is partly due to the towns offering different kinds of employment opportunities and social experience but also due to a prolonged agricultural depression as steamships make the large scale importation of American and Canadian wheat, as well as other agricultural produce, an economic reality¹³⁸. In other words the effects of time-space compression. This was compounded by sector related industrial depressions in the latter part of the 19th century¹³⁹. The paucity of government action led Howard to the conclusion that intervention in social problems through the state, apart from bringing on clashes between "vested interests"¹⁴⁰ was unlikely to achieve anything significant. In this he differed from many social reformers of the day who pushed for both a greater role for the population in the functioning of the state¹⁴¹ and a greater remit for what the state could/should be concerned with. Thus Howard was motivated to improve the nature of city living which he concluded was best done by decanting people, particularly from London, back to a new kind of city set in the countryside. Further he believed his proposals would improve the rural economy by creating new markets for agricultural produce, produced from the land surrounding this new city. It is very much an holistic and utopian view of organising a society.

Initially Howard favoured calling his plan "The Master Key" following an annotated diagram of a key with the parts that were cut away to make the wards function. His diagrams "The Master Key", "Three magnets", "Group of slumless, smokeless cities" and his various plans for "Garden City" are often given prominence in writings by and relating to Howard , thus giving visual aspects of his proposal undue prominence. ¹⁴²

Whilst "The Master Key" might have been his first title for the whole plan, the initial name for the model settlement used to explain the idea was to be Unionville. This was to emphasise the "union" between town and country. A further –ville connection is Bournville, the site of Cadbury's chocolate factory and model village. Moving their business out of Birmingham they found a site on the banks of the Bourn Brook which they began to develop from 1879. They then named their chocolate Bournville and subsequently built a model workers village of the same name. Howard was certainly aware of Bournville as he cited it as a case in point of manufacturers being willing to move production from central sites to greenfield sites and thus suggesting that he could lure business and industry to his new settlements, key to their success.

¹³⁸ For example imports of staple grains & maize rose 424% from 1850 to 1885, total farm incomes dropped from about £40 million in 1855 to £21 million in 1885. A real example of space/time compression.

¹³⁹ Including a depression in the iron trade during the 1880's which closed some works in Scunthorpe temporarily.

¹⁴⁰ perhaps his euphemism for "class war"

¹⁴¹ Although the Chartists movement had fizzled out by the time of Howard's writing their Land Plan, enacted between 1844-48, aimed to resettle people on subdivided estates with the intention of them gaining the vote by property qualification has resonance. The Fabian Society, from 1884, was a prominent agitator for an increased state roll.

¹⁴² I will be considering this form of shorthand explanatory use later, particularly in reference to documents produced to justify change in Scunthorpe.

However Howard dropped Unionville and started to use Rurisville¹⁴³. W.H.G. Armytage quotes Howard as saying that:

"The phrase Rural City is, I think, even a better, a truer, and more descriptive title of what a Garden City should be than 'Garden City' itself, which I then chose as the name of a then purely imaginary town, Indeed, ...I discarded the name 'Rurisville' which I had first chosen, in favour of the title 'Garden City', only because I did not like the mixture of Latin and French in one word." (1961, p 371)¹⁴⁴

Rurisville does not disappear completely as the name is used as one of the towns in the "group of slumless, smokeless cities" diagram, as indeed is Garden City. Figure 1¹⁴⁵ shows each city in Howard's original 9,000 acre setting (later reduced to 6,000). In the diagram there are seven settlements. Six are arranged around a larger settlement (of 58,000 inhabitants) called, descriptively, "Central City". In this drawing, believed to be from 1888, the other settlements are named: Rurisville, Philadelphia, Concord and Christos with no names given for the two remaining settlements.

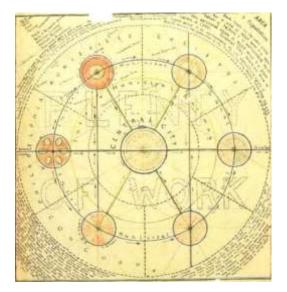


Figure 59 Early "group of slumless, smokeless cities" draft drawing. Copyright Welwyn Garden Heritage Trust. (Howard's Drawings 2022)

The later diagram, Figure 2, (from the 1898 first edition) which is the more often reproduced drawing has the six satellite settlements as: Rurisville, Philadelphia, Concord, Gladstone, Justitia and Garden City.

¹⁴³ (Beevers 1988) notes indicate some overlap of usage circa 1893/4

¹⁴⁴ Original quote in: Garden City and Town Planning Journal , September 1909

¹⁴⁵ http://www.welwyngarden-heritage.org/photo-gallery/category/30-howard-drawings#&gid=1&pid=7

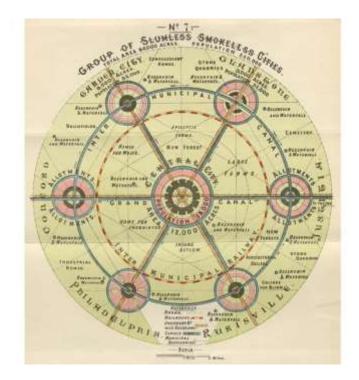


Figure 60 Later version of the "group of slumless, smokeless cities" drawing. Copyright Welwyn Garden Heritage Trust. (Howard's Drawings 2022)

These "cities" set in their 9,000/6,000 acres have a total envisaged population of 32,000, some of whom live on the farmland, so these are not the large settlements that "city" might imply.

The city chosen for the worked example in Howard's book was named Garden City. By the time of the revised second edition (1902) the title, "To-morrow: A Peaceful Path to Real Reform" changes to "Garden Cities of To-Morrow". We note that mention of reform has also been dropped from the title. This makes for something of a conundrum for, as we have seen, "Garden City" seems not to have been Howard's first, second or even third choice, if we are to count "Rural City". According to Robert Beevers (1988, p 7) Howard denied certain origins for the name but we don't get any clear explanation concerning its provenance. Certainly it has some practical association with his proposal. His first use of the term comes, according to Stephen Ward (2016, p 11), in a prospective but rejected article he wrote for the "Contemporary Review" in 1896

Prior uses and meanings of "garden".

However the use of "Garden City" for a settlement pre-dates Howard's proposals by some decades and what exactly do we mean when we say "garden"? The connection, which Howard denied, but which seems most obvious given his time there, is the use of "Garden City" as a tag line for Chicago. Chicago has the official motto "Urbs in Horto" (translated as "city in a garden") from 1837 and, I found, is being referred to as "garden city" in British newspapers from at least as early as 1850 (and carries on well up to the publication of Howard's book) viz. this extract from the Preston Chronicle and Lancashire Advertiser. "Extracts from a Letter From America" – "It is now the largest city on Lake Michigan, or in the State of Illinois, and has been designated the "Garden City", and not without cause, for there are more gardens, and prettier, too, attached to the dwelling-houses, than in any other part of America I have visited, excepting Philadelphia."¹⁴⁶ (1850)

The official website for the Chicago Park District¹⁴⁷ gives a different take to both the motto and the "nickname" in that it suggests that it is the extensive system of parks i.e. public open spaces, rather than the gardens attached to properties, from which the name arises. From their website we have this:

"In 1849, real estate speculator and city booster John S. Wright imagined a much more ambitious scheme of park development that would benefit all of Chicago:

'I foresee a time, not very distant, when Chicago will need for its fast increasing population a park or parks in each division. Of these parks I have a vision. They are improved and connected with a wide avenue, extending to and along the lake shore on the north and the south, and surrounding the city with a magnificent chain of parks and parkways that have not their equal in the world.'" (Chicago Park District - About Us 2022)

From this we see that public parks, and the generous provision of such, is, in America, associated with boosterism. That is to say that having a parks system is necessary for the projection of Chicago as a world ranking city.

This is a piece written by John S. Wright in 1868:

"The rich loamy soil affords a natural velvet turf of blue grass and white clover, and rapid growth to shrubs and trees; and when the land about the city shall be properly laid out for suburban residences, and beautified with parks and fountains, we shall become fairly entitled to our soubriquet, The Garden City." (1868, p 250)

¹⁴⁶ Via The British Newspaper Archive.

¹⁴⁷ And also here (Chicago Park District - Origins of an Idea 2018) now deleted and can be found here (I Love Chicago - Chicago Boulavard System - ix 2004).

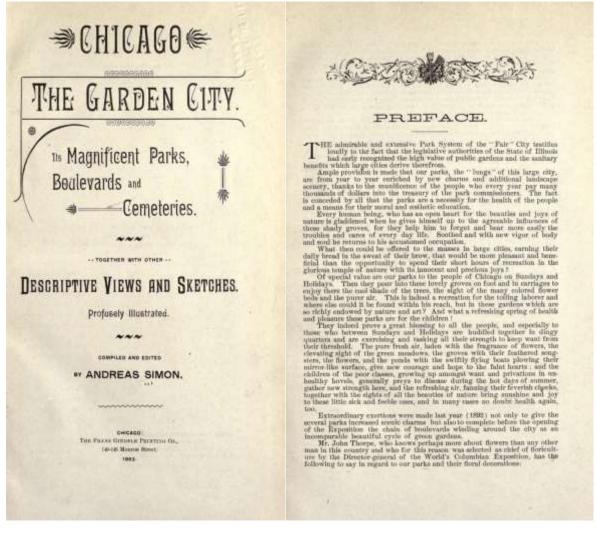


Figure 61 The frontispiece and preface of the 1893 book "Chicago: The Garden City" (Open Library 2022). Used under "fair use" copyright.

Perhaps contrary to modern interpretation, the root sense of "garden" is enclosed space i.e. with a hedge or a fence and would seem to come to us from Germanic roots, for example Stuttgart deriving from a time when managed horse breading within an enclosure was carried out there. If one considers early planted gardens, usually referred to as parterre gardens and dating from the 16th century, we get a strong sense of garden meaning enclosure or series of enclosures rather than the plants therein or the whole ensemble.

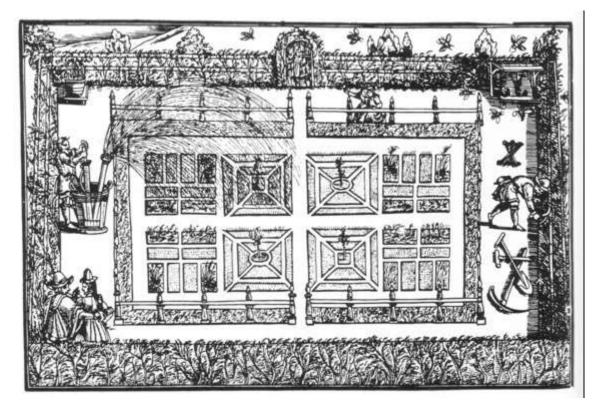


Figure 62 One of Thomas Hill's designs for a garden from The Gardener's Labyrinth, showing 'a great Squirt' watering device on the left (1594) (The Tudor Garden at Trerice 2018)

Thus we open up an anomaly: is the "garden" a public space, such as a park or private space attached to a dwelling, or both? We see some crossover with "garden" in the use of the word "park" which also comes from a similar source with a similar meaning of enclosure for livestock, perhaps most notably for deer. In England deer parks evolved from hunting enclosures to (deer) farming enclosures. Deer parks required a royal licence and hence were expensive and became associated with royalty and the aristocracy. Meaning drifts away from the deer park as the taste for formal parterre gardens gives way to the naturalistic landscapes created by Lancelot "Capability" Brown, and Charles Bridgeman, and William Kent before him. Thus we see the cross over between the terms garden and park. Because of the royal associations with park, the generally larger size, the fact that many of the parks associated with stately homes are now open to the public, and the licencing previously required one might see how, in the UK, the term tends towards being the name for municipal public open space provision.

In "Paradise Planned: The Garden Suburb and the Modern City" Stern, Fishman & Tilove (2013) detail many developments prior to Howard's book that they categorise as "garden suburb" developments. What is noticeable and relevant at this point is that a number of American settlements of this period use the term "Park". This term was sometimes used in the UK before Howard's book and the Bedford Park development (1875) is a notable example. Very broadly these "park" settlements are for higher income families (excepting those settlements specifically tied to a particular manufacturer and workforce). In the USA Fredrick Law Olmsted) and Calvert Vaux, Vaux having been born in England, became one of the most well-known proponents of both parks, in the municipal sense, and settlement parks in the American tradition. Some sources suggest that Olmsted and Vaux's plan for a dormitory community, nine miles west of central Chicago, called Riverside, was an inspiration for Howard, though he apparently denied this too. (Ward 2016, p 11)

In addition to Riverside's possible influence and the "nickname" for the city of Chicago itself, there was an actual Garden City, begun in 1869, on Long Island, New York, by A.T. Stewart, a very successful textile and dry goods retailer and manufacturer, originally from Northern Ireland. Stewart acquired 10,000 acres of "almost treeless plain" and the 10,000 homes envisaged were to be built on a mostly grid iron pattern of roads, which differs in plan from Howard's idea, however the intention was that the houses would be "for clerks and …businessmen, and it is known that he intended that not one single house should be sold in Garden City. It is conjectured that he desired to bequeath to the world a city that should own itself – a city whose every inhabitant should pay a house-rent to the city treasury direct – a city that should ultimately become so wealthy that it might support schools and encourage art." (Stern 2013, p 242) ¹⁴⁸. This concept has similarities with Howard's plan, although I do not know why Stewart subsequently called it Garden City after first calling it Hygeia.

What is of interest is the resonance that the "garden city" name had and continues to have above all these other possible names and given that it was a name actually already in use. Graham Livesey (2011) attempts to use Gilles Deleuze and Félix Guattari's Assemblage Theory to explain the legacy of the early garden city movement. In doing so he writes about the actual act of gardening. Whilst the act of gardening can be tied in with political thought on land ownership via the Diggers and it can be tied into phrases such as "honest toil" and Morrisian ideals of "medieval" craft based socialism, I sense little from Howard about the actual act of gardening. Livesey seems to think that this is ironic but if you look at the situations surrounding Howard's choice of the title and the wider sense of the word then we see it is not really about gardening. Livesey is correct in saying that Letchworth (the first of Howard's built "Garden Cities"), as it became established, did foster a spirit of gardening as good for the soul and the body. Letchworth also effectively made the act of gardening compulsory with maintenance of the garden to a reasonable standard being a condition of the lease.

It is not unimportant, then, that the second edition of Howard's book (with some amendments to content too) has the name changed from "To-morrow: A peaceful Path to Real Reform" to "Garden Cities of To-morrow" (1902). The promotion of "Garden City" to the title, as well as the demotion of all that potentially divisive talk of "reform", indicates that someone, not necessarily Howard, realised the power of that title. We do not, however, generally consider Chicago to be "the" or a Garden City anymore. We do not remember A.T. Stewart as the "father" of the "Garden City" movement, we remember Howard. The narrative relating to Chicago was one of making Chicago a unique place that would attract inward investment leading to growth, it was not about making itself an iterable prototype. Similarly Stewart's Garden City was intimately connected to his business (as with Saltaire, New Lanark, et al) and neither was he setting out to provide an iterable prototype. Howard's idea was intended to produce an iterable city.

¹⁴⁸ Quoting the New York Herald.

Influences on Howard.

In order to understand Howard's model and the subsequent drift from it we should examine some of the influences shaping his idea. Howard never claimed originality for the themes in his book, merely the unique combination of those themes. In terms of social and political reform he was influenced by William Morris and particularly the American writer Edward Bellamy, indeed he pushed for UK publication of Bellamy's book, "Looking Backwards: 2000 - 1887" (2007 (1888)), and compiled the index for it. Bellamy utilises a Rip van Winkle type plot device to project "Julian West", a Boston (USA) resident in 1887, into the imagined Boston of the year 2000, by which time it has been transformed into a "socialist" (some might say "statist" or even "totalitarian") utopia. The book was wildly successful in its time with "Bellamy Clubs" being set up to promulgate the ideas in the book. It was successful in the UK too but its state-centric socialism brought a riposte from Morris in the form of his book "News from Nowhere"¹⁴⁹ (2004 (1890)) where he utilises a similar time shifting plot device to portray a more decentralised, cooperative, craftsman based socialist society. Whilst there is nothing to suggest that Howard had any particular interest in Morris' artistic endeavours per se, Morris' interest in a much idealised medievalism was a great artistic as well as political inspiration to many of the people who would give Howard's idea a built form. It was architects that would ultimately define the "look" of "Garden Cities". It is not, perhaps, incidental that those drawn to both the political writings of Morris and to his nature and medieval inspired designs should be drawn to Howard's conception of a "Garden City" seemingly at one with its environment.

In terms of land reform the American writers Henry George, Thomas Spence, and Herbert Spencer are influences. Each advocated some form of common ownership of land, which we can trace back through to at least Winstanley and the Diggers. Land Nationalisation was a much-debated topic in the late 19th century and whilst Howard is supportive of it he is keen to distance himself from any revolutionary reform by seeking his "peaceful path". Beevers makes this interesting point:

"English Puritanism, in short, was the source of Howard's inspiration. From childhood almost he had been clothed in its mode of religious feeling which, for all his later doctrinal objections, he could never slough off. And when he reached maturity he found there the ideas he needed to provide his own answer to the 'social question'. All the chief contributors to the stock of ideas from which Howard distilled the concept of the garden city – not only Spence but also Richardson, Spencer and even Henry George – were dissenters by upbringing or steeped in its tradition. Kropotkin apart, none of the continental thinkers appear to have touched him; if he was prompted by the reference in Spencer to read Fourier and Louis Blanc he never said so. More surprisingly perhaps is the absence of any mention of Marx whose ideas, at least in broad outline, he was familiar with from reading Hyndman. If he knew of the reference in the Communist Manifesto to the devastating effect on the countryside of the growth of enormous cities, he did not think it worth citing." (1988, p 24)

¹⁴⁹ Clearly the "Nowhere" is a play on the Latin meaning of utopia.

From an architectural and planning perspective, there are a number of both realised and unrealised influences on his model city. Perhaps the most widely known is "New Lanark" (from 1786). Robert Owen and his partners improved working conditions and provided better quality planned accommodation for their workers and, eventually, educational and recreational facilities, all of which were substantially better than the norm for the time. This settlement is a waypoint for the single industry/employer provided planned settlement adjacent to industrial premises and ultimately spawns Saltaire (begun 1851), Port Sunlight (begun 1888), Bournville (from 1893) and many others¹⁵⁰. Accommodation that promoted better health also provided more productive workers, having the labour force close to hand provided greater certainty those workers will be available to keep machines producing. Where educational services are also provided this educated general workers to a level compatible with performing their job and organising their life so as to be available for work. Thus there are pragmatic capitalistic and production driven reasons for the provision of worker accommodation as well as philanthropic or moral ones. This is a really important point in that many, if not all, of the "welfare" provisions enacted by capitalist actors do end up benefiting operations whether or not those actors are bringing forward those changes because of some moral imperative, even with many of those actors being committed to religious narratives. However the provision of housing and (sometimes) education are a cost of production that operations will seek to rid themselves of at the earliest opportunity.

In Howard's "Garden City", then, you have many lines of thought and enquiry brought together under one expression. Pulling all those strands together widens the appeal of the narrative but also opens up the narrative to being pulled in the direction of any one or more of those influences. In particular any parts that are missing are available for completion by others, as we shall see.

Having looked at the emergence of the name "Garden City" and the influences on the idea we now need to see what the proposed elements of the model are so that we can determine what, if any, parts of it are subsequently used.

Howards "Garden City".

Howard's book and his revised edition, together with his other essays and speeches of the period define his model. In my view (and not stated as such in Howard's book) there are essentially four interconnected aspects to Howard's Garden City narrative and these are; a social model, an economic model, an organisational model and a model layout.

Dealing firstly with the model layout we must say that Howard was not a planner nor an architect, builder or anything other than a casual observer of the built environment in the modern senses of the words. He was concerned with space and density but he appears to have no particular view on the kind of dwellings and their visual appearance that would actually be built. His "plans" are little more than diagrams, which help keep the clarity of his ideas to the fore in the readership's mind more than say an as built drawing would. It is not thought that he actually intended his city to be absolutely circular but some features he probably did expect to see and these include the grouping of municipal buildings, the separation of industry the "neighbourhood unit" (though this term

¹⁵⁰ We might also note here that Rowland Winn's extensive farm cottage provision in Appleby and his New Frodingham development fall into this latter trend.

develops somewhat in future use), park and open space, mixed housing, a separate retail area and most importantly a fixed size population within a mutually supporting surrounding agricultural area.

In terms of his social model he tended towards a more co-operative society and this feeds into his economic model. He was not against individualism or capitalism per se but generally tended to see most things organised along community lines. He appears to have thought that residents would want to spend amounts of time on committees and in meetings organising things for the good of the community. The social model also involved the voluntary decanting of populations from existing large towns and cities into the "Garden Cities" eventually greatly reducing the size of those large towns. I have not seen any calculations by Howard to suggest how the population numbers might work, how many "Garden Cities" might be required and where space might be found for them. No rate of building is suggested and no consideration is made of either general population growth or population growth within a "Garden City" that has reached maturity.

In terms of an organisational model we have mentioned the diagram "A group of slumless smokeless cities" in which we see how such cities might be arranged round a slightly larger city and how they might be interconnected by road, rail and canal whilst being separated by what we would now call a "green belt".

The economic model involves philanthropic individuals¹⁵¹ buying the required land at agricultural value, i.e. cheaply, and vesting it in a company that would be owned and controlled by the inhabitants who in turn would pay a rate/rent, some of which would go to repaying the investors, some to developing the estate and its services and some for future maintenance. The surrounding agricultural estate would also be owned by the community as would the industrial land. Thus this portion of the plan provides *a peaceful path to real* (land) *reform* by buying out, albeit at low agricultural value, the vested interests and taking the land out of circulation as a speculative asset whilst retaining the uplift in value from development for the community and all without conflict and the aid of government¹⁵². Aside from heavy industry, which seems not to have been considered, and some higher level services the "Garden City" is conceived as a self-contained economic unit with the majority of inhabitants finding employment in the industrial, farming or retail zones of the settlement. The lack of any provision for the sort of large scale heavy industrial operation is interesting in view of Scunthorpe's association with the term "garden city". Growth is by replication of the "Garden City" unit; otherwise it would appear that the "Garden City" is a steady state concept.

Whilst it is clear that Howard believed in his entire model it is also clear (from his original book title, if nothing else) that the economic model, the capturing of the uplift in value and the transfer of ownership to the community were at the forefront of his beliefs.

¹⁵¹ They have to be philanthropic because it is not intended that they are to get much return on their investment. Nevertheless there were such people, George Cadbury comes to mind.

¹⁵² In reality and despite an agricultural depression deception as to the true nature of the land acquisition was required in order to obtain it at a "workable" price.

From plan to reality, Unwin drives the narrative.

Having looked at the influences and the model we should now give some consideration to the subsequent executions of that plan with Howard's involvement.

The public narrative created by his book attracted growing support and led to the creation of The Garden City Association (1899), aimed at promoting the ideas in the book, and gained the support of two Peers, three Bishops, 23 MP's, the industrialists George Cadbury, Joseph Rowntree (chocolate manufacturers), W.H. Lever (soap manufacturer) as well as Cecil Harmsworth (brother of the owner of the Daily Mail and later a Liberal M.P.) and the well-known writer and socialist H.G. Wells amongst some 1300 members. So you can see that very quickly Howard's narrative attracted substantial backing.

Following the republishing of the book in 1902, with an amended text, and title which Beevers says he only agreed to reluctantly (1988, p 80), the Garden City Pioneer Company Ltd. was set up to develop the first city and Howard was made the managing director. Many people were now involved in making the book a practical reality and, as the detail of building the prototype at Letchworth¹⁵³ progressed, enacting its ownership and financial structures in law and particularly making it attractive to employers to locate there, required compromises to be made which would create divergence from Howard's vision. Howard's lack of commercial ability and his inability to inspire hardnosed investors that their capital was safe led to him being eased out of his job as managing director.

But clearly somethings about Howard's narrative were sufficiently appealing for significant momentum to gather behind it in the period 1898-1902. The key to this may be in this extract from a published letter:

"Mr. Cadbury is able to provide at Bournville semi-detached houses with 600 square yards of garden at from 7s. to 9s, per week, after taking reasonable interest on his capital outlay. The same house costs from 18s. to 20s. with 20 yards of garden, in London. What is the reason of the difference? It is simply because he acquired the land at fair price, and is dividing the increase of land values with his tenants. This is undoubtedly the basis of the success of Bournville, and is one of the underlying principles of the Garden City scheme." (Adams 1902)

Here we see that Cadbury has had to divert substantially less surplus from his core business into housing by buying agricultural or "cheap" land but he is still left with the maintenance and administration of the development. Howard's model is even better, particularly for smaller industrialists as they can pool a portion of surplus into cheap land which they could sell back to the community whilst gaining a modest return. Further they are now divorced from the production of housing, which many industrialists would have viewed as a burden. As I suggested earlier the moral imperative for action also appears to coincide with the aims of capital reproduction. A tenant in

¹⁵³ Another site was considered before Letchworth but deemed too risky due to its greater distance from London.

Bournville, according to the above letter, potentially has more than 10s now available, some of which could be spent on additional "luxuries", such as the chocolate they manufactured.

After a competition the architect/planners appointed to design Letchworth were partners and brothers-in-law Barry Parker and Raymond Unwin. Unwin had been consulted about a previous site before Letchworth was chosen in its place. Unwin had heard lectures by Ruskin and Morris in Manchester and became secretary of his local Socialist League, of which Morris was a founder member.

Parker and Unwin are strongly rooted in what becomes known as the Arts and Crafts design movement. As with all these terms what Arts and Crafts actually belies is a complex set of themes and strands. In the case of Parker and Unwin we have a strong influence from Morris in both his socialist principles and his Medievalism resulting in a preference for a rural village vernacular¹⁵⁴ in housing design and placement. Unwin was influenced in urban design by Austrian Camillo Sitte.

Unwin and the garden city movement in general make much use of the term cottage for dwellings. This harks back to an actual medieval usage implying a simple dwelling on enough land for the occupants to achieve a level of self-sufficiency. Despite being used in more urban settings, cottage generally implies a sense of rural aspect or at least the sense of some land (i.e. garden) adjacent to it. This use of cottage also plays into the late 19th century idea promoted by Frederic Impey and Joseph Chamberlain to reinvigorate the tradition of the cottager as outlined in "Three Acres and a Cow"¹⁵⁵ (1886), which put simply is another attempt at repopulating the countryside which was a real political concern at that time.

To gain an insight into Unwin's thinking on "Garden Cities" it is worth quoting at length his words from the opening of his 1912 pamphlet "Nothing gained by Overcrowding":

"The Garden City movement, as the name implies, stands for a more harmonious combination of city and country, <u>dwelling house and garden</u>. The rapid growth of towns and cities in the eighteenth and nineteenth centuries, due to the organisation and concentration of industries, took place without any proper regard being shown for <u>health, convenience or beauty¹⁵⁶</u> in the arrangement of the town, without any effort to give that combination of building with open space which is necessary to secure adequate light and fresh air for health, adequate unbuilt-on ground for convenience, or adequate parks and gardens for the <u>beauty</u> of the city.

Many attempts and proposals had been made to counter this evil, but it was only after Mr. Ebenezer Howard had put forward the bold proposal to build a city on new lines, and with his supporters actually commenced to carry out that proposal,

¹⁵⁴ Though without the damp, cold, vermin and disease of the original.

¹⁵⁵ Also of note is that in that book there is a chapter devoted to conditions in the Isle of Axholme, which lies adjacent to the Scunthorpe area.

¹⁵⁶The use of the wording "<u>health, convenience or beauty</u>" is similar to one that we see in the introduction of Abercrombie's Scunthorpe Plan report where he talks of the town requiring the essentials of "convenience, health and amenity".

and only after Mr. Horsfall had explained what was being done to regulate the growth of towns <u>in Germany</u> that the public realised either the extent of the evil or the possibility of the remedy.

Mr. Howard's suggestions included then the proper planning and limiting of a town, so as to keep it always within reasonable touch of open country; this may be called the larger aspect of the question; but they also include the proper arrangement of the individual buildings and <u>the amount of building in relation to</u> <u>the area of open space</u>, and that may be called the detailed aspect of the question.

What is meant by the founding of a new Garden City is now fairly generally understood, but it is perhaps too often assumed that the Garden City principle is only applicable where it is possible to start a new and entirely independent town right away in the country. Mr. Howard in his book recognised that it is not possible to regulate the aggregations of population in such a way that there shall be only detached towns of a limited size scattered about independently of one another. He fully recognises that one such town having reached the proscribed limits might need to provide for the development all round it of subsidiary towns at a short distance, intimately connected with it; that in fact there might develop a federated group of towns recognising one general centre. It is important to regard this principle as forming a constituent part of the Garden City movement because of its <u>applicability to existing towns</u>."(My underlining) (1912, p 1)

In this introduction to the pamphlet, that for the most part is an economic justification for low density development, Unwin is shifting and extending the meaning of "Garden City" away from Howard's text. In an article Ralph Neville QC, the president of the association writes:

"...it is necessary first of all to remember what is the evil with which we have had to grapple. It is this: the concentration of population in great industrial towns, with its accompanying evils – evils both moral and physical."

He goes on to say:

"I do not myself believe that the conditions of life in towns of excessive size can ever be made consistent with satisfactory development, physically or mentally. The multitude of impressions received by the brain, and the rapidity of their succession, tend to induce shallowness of thought and instability of purpose. An increasing emotionalism and a loss of steadfastness are marked characteristics of town dwellers. I speak of towns of such a size as to make the practical divorce of man from nature and solitude. With regard to physical development the superiority of rural conditions to urban are recognised beyond controversy,....." (1909, p 227)

These quotes have in them a hint of social engineering and even eugenics. Neville's remarks would also seem to run counter to the more often used narratives of the quick witted city dweller and the

country bumpkin. But perhaps more importantly here we pick up anti-industry sentiments, something that Scunthorpe will be bedevilled with in its desire to create its own narrative.

Unwin shifts emphasis to the relationship between the dwelling and its plot, making it as important as the relationship between the dwellings and open space. Also in the excerpt above he utilises the "Group of slumless smokeless towns" idea and shifts it towards the expansion of existing towns by the creation of "Garden Suburbs", which he had already engaged in with his commission to design Hampstead Garden Suburb in 1906. In designing Hampstead Garden Suburb he and Parker, along with Edwin Lutyens , create what can reasonably be argued is the actual antithesis of a "Garden City" in that it is an urban expansion dormitory settlement with no industry and only limited retail and service provision. They are thus ignoring some of the essential tenants of Howard's narrative of a self-sustaining community set within agricultural land. What is carried over from Letchworth is the curving tree lined streets, the general density and design of the houses indeed what we might call the "look" of the thing. Parker & Unwin fill the visual void Howard had in his model.

Unwin, when confronted by his critics as to the perceived high cost of the Arts & Crafts design for lower wage earners, remarks:

"for if a Garden City stands for anything surely it stands for this: a decent home and garden for every family that come here. That is the irreducible minimum. Let that go and we fail utterly. And if we succeed utterly what then? A beautiful home in a beautiful garden and a beautiful city for all." (1904, p 111)

Surely Howard's idea of the "irreducible minimum" of what a garden city stood for would have emphasized social and land reform which Unwin has transmuted into a strong aesthetic narrative, more iterable and more saleable, of beautiful homes with beautiful gardens in the spirit of this, though it is the securing of the site at low, agricultural value that permits the space standards and the possibility of beauty.

Institutionalisation

During WW1 Unwin was recruited into the Ministry for Munitions to design and layout worker accommodation. He then moved to the Ministry of Health where he took increasingly senior and influential positions where he was able to ensure that his narrative of settlement layout/look dominated both public and private provision of housing in the inter-war period. This gave the interwar period a superficially "Garden City" look . Clearly Unwin saw the way forward through government intervention, a complete opposite to Howard's initial desire. One of the unintended outcomes of WW1 was the command and control, direct and indirect, over the means of production, by government in order to focus it on war aims, something that was to happen again in 1939-1945. Officials, like Unwin, undoubtedly thought that government was capable of significant beneficial action¹⁵⁷. Unwin played an influential role in the Tudor Walters Report of 1919 which was adopted in

¹⁵⁷ Numbers of civil servants increased approximately four fold in WW1 and although dropping back after, the interwar years saw approximately double pre-war numbers. WW2 saw almost a tenfold increase dropping back to approximately seven times interwar levels.

the Housing and Town Planning Act 1919 (aka the Addison Act) and replaced the 1875 Public Health Act "by-law terraces" with housing layouts visually similar to those in "Garden City" developments. Thus Unwin was very influential in shaping the phenomenological outcome of new housing developments in the inter-war period. George Pepler, former Chairman of the Executive of the Garden Cities and Town Planning Association also entered the Ministry of Health and was active in promoting "Garden City" style schemes. Thus Unwin and Pepler represent the bureaucratisation of "garden city"¹⁵⁸.

A second "Garden City" was begun at Welwyn in 1920. A more aggressive development company was set up to construct the project. For example it set up sub-companies to make its own bricks and for a while it ran its own general store, exploiting opportunities to create monopolies for itself. In this respect it is very much the forerunner of the post WW2 "New Town" development corporations. The "New Town" narrative, as opposed to just new town, has its roots in WW1 when Howard aids F.J. Osborn and Charles Purdom (associates in the garden city movement), along with a Letchworth publisher, in producing a book, which presents a further revised idea of what a "Garden City" should be, called "*New Towns after the War: An Argument for Garden Cities*" (Townsmen 1918). They style themselves anonymously under the title "The New Townsmen"¹⁵⁹. Beevers says of this:

"If To-morrow assumed in the reader an earnest idealism tempered by science and technology, its successor (New Towns after the War) appealed to a kind of hardheaded, no-nonsense pragmatism. This pragmatical approach was to have a critical and permanent effect on the New Towns movement of the future, which came to be characterised as a housing programme rather than a scheme of social and economic reform. This was of course the last thing that the authors intended, and, indeed, they were at pains to emphasise that the garden city was much more than an experiment in housing and town planning." (1988, p 151)

So we can see that from the publication of Howard's book in 1898 through into the 1920's there is considerable drift in terms of what a "Garden City" actually is. Not the least in Letchworth itself where an early promotional advert aimed at manufacturers suggests the benefits of moving there are: "*Cheap gas and water. Good cottages. Low rates. Cheap electric power. Up-to-date facilities. Bracing Air. Ample and efficient labour.*" (Ward 1998, p 168), hardly the priorities Howard would have listed, perhaps.

Any putative town, like Scunthorpe, that decides to link itself with the notion of "garden city" could, as we have seen, legitimately choose from a wide interpretation of that title. We will examine the particular reasons for Scunthorpe's actions in later chapters.

¹⁵⁸ We shall encounter them again in connection with the Scunthorpe plan.

¹⁵⁹ Possibly because Osborn is avoiding military service and has no desire to be noticed.

Bibliography

Works Cited

British Steel Corporation. *Appleby-Frodingham Works, Scunthorpe Anchor Developments*. British Steel Corporation, circa 1974.

Stewarts and Lloyds Ltd. Stewarts and Lloyds Ltd. 1903-1953. Stewarts and Lloyds Ltd., 1954.

Ancestry.co.uk. n.d.

https://www.ancestry.co.uk/imageviewer/collections/1904/images/31874_222942-00227?pId=5949661.

- Abercrombie, P., Humble, J. & Johnson, T.H.,. *The Doncaster Regional Planning Scheme*. Liverpool University Press, 1922.
- Abercrombie, Patrick. "Scunthorpe Open Spaces." *The Town Planning Review Volume 10 No.1*, January 1923: Plate 7 & p70.
- Adams, T. "Letter." London Daily News, 19 April 1902: 3.
- Adamson, Daniel. "GB124.B.ADM." Letterbooks. Manchester Libraries, 1851-.
- Addison, P. London Review of Books, Vol. 8 No. 13, 24 July 1986: 6-7.
- Agnew. The United States in the World Economy. Cambridge: Cambridge University Press, 1987.
- "Alfred Davy." Grace's Guide to British Industrial History. n.d. https://www.gracesguide.co.uk/File:Im1872v13-p420hd.jpg.
- Andrews, P., and E. Brunner. Capital Developments in Steel. Basil Blackwell, 1951.
- "Appleby Iron Company." *Grace's Guide to British Industrial History*. n.d. https://www.gracesguide.co.uk/Appleby_Iron_Co.
- Ardrossan & Saltcoates Herald.1 January 1883.
- Armstrong, A.E. *An industrial Island: a History of Scunthorpe*. Scunthorpe Borough Museum and Art Gallery, 1981.
- Armytage, W.H.G. *Heavens Below: Utopian Experiments in England 1560-1960.* London: Routledge, 1961.
- Arthur, W. Brian. The Nature of Technology. London: Penguin, 2009.
- Arthur, W. Brian. "PART II Prospects for Complexity Science in Helping Solve Business and Technology Problems." *YouTube*. 25 March 2004. https://youtu.be/Glsl1BRtx-o.
- Ashton, T.S. *Iron and Steel in the industrial Revolution.* Manchester University Press, 1924 (3rd edition 1963).

Barnett, C. The Audit of War. Macmillan, 1986.

- Bateman, John. *The Great Landowners of Great Britain & Ireland*. Cambridge Library Collection, 1878 (2014 reprint).
- Beastall, T.W. Agriculturel Arvolution in Lincolnshire. History of Lincolnshire Committee, 1978.
- Becker, H.S. Sociological Work: Method and Substance. Routledge, 1970.
- Bedford, The Duke of. The Story of a Great Agricultural Estate. London: John Murray, 1897.
- Beevers, Robert. *The Garden City Utopia: a critical biography of Ebeneezer Howard.* London: Macmillan Press, 1988.
- Bell, Isaac Lowthian. Principles of the Manufacture of Iron & Steel with some Notes on the Economic Conditions of Their Production. Routledge, 1884.
- Bellamy, Edward. Looking Backward: 2000-1887. Oxford World Classics, 2007 (1888).
- Biddulph, Garden Town of Staffordshire. 2022. http://biddulph.co.uk/.

Birmingham Daily Post.5 October 1882.

Birmingham Journal.10 January 1846.

Birmingham Journal.18 March 1826.

Birmingham Journal.25 October 1845.

Booker, Christopher. The Seven Basic Plots. London & New York: Continium, 2004.

- Boston Guardian 22nd August 1885.22 August 1885.
- Boswell, Jonathan S. *Business Policies in the Making: Three Steel Companies Compared.* George Allen & Unwin, 1983.
- -. Business Policies in the Making: Three Steel Companies Compared. George Allen & Unwin, 1983.

Bourdieu, Pierre. Language and Symbolic Power. Polity Press, 1991.

Bournville Village Trust. When We Build Again. London, 1941.

- Bowyer, F.J. The Development of Scunthorpe. Scunthorpe Borough Council, 1964.
- Broad, J., ed. Bishop Wake's Summary of Visitation Returns from the Diocese of Lincoln 1706-1715, Part 1: Lincolnshire. Oxford University Press, 2012.
- Broadberry, Stephen, Campbell, Bruce M. S., van Leeuwen, Bas. *English medieval population: reconciling time series and cross sectional evidence.* Warwick University, 2010.
- Bulmer, M. *The Chicago School of Sociology: Institutionalization, Diversity and the Rise of Sociological Research.* University of Chicago Press, 1984.

- Burnham, T.H., & Hoskins, G.O. Iron & Steel in Britain 1870-1930, A comparative study of the causes which limited the Economic Development of the British Iron and Steel Industry between the years 1870 and 1930. Allen & Unwin, 1943.
- Butler, Judith. "Performative Acts and Gender Constitution: An Essay in Phenomenology and Feminist Theory." *Theatre Journal, Vol. 40, No. 4*, 1988: 519-531.
- Cantillion, Richard. An Essay in Economic Theory. Indianappolis: Liberty Fund, 1755, 2015 translation.

Carlisle Patriot.13 March 1891.

- "Chicago Park District About Us." Chicago Park District. 2022. http://www.chicagoparkdistrict.com/about-us/history/.
- "Chicago Park District Origins of an Idea." Chicago Park District. 2018. http://www.chicagoparkdistrict.com/history/city-in-a-garden/origins-of-an-idea/.

Collingwood, R.G. The Idea of History. Oxford: Oxford University Press, 1946 (1994 ed.).

Cooke, Reg. British Steel Plc, Scunthorpe Works, The History of Burden Preparation. British Steel Plc., 1990.

Cresswell, Tim. Place: a short introduction. Oxford: Blackwell, 2004.

Cross, David S. *Coal mining on a Yorkshire estate: land ownership and personal capital 1859-1914. PhD Thesis.* Sheffield Hallam, 2015.

Crouzet, F. The First Industrialists, The Problem of Origins. Cambridge University Press, 1985.

Culpin, Ewart G. *Garden City Movement Up-To-Date.* The Garden Cities & Town Planning Association, 1913.

Czarnianaska, B. Narratives in Social Science Research. Sage, 2004.

"Daffodils Planted." Carmarthen Journal. n.d. http://www.carmarthenjournal.co.uk/Daffodilsplanted-bid-make-garden-town/story-28061962-detail/story.html.

Dahl, R.A. Dahl, R.A., "Who Governs? Democracy and Power in an American City", Yale University Press, 1974, second edition 2005. Yale University Press, 1974 (2nd ed. 2005).

Davenport-Hines, R.P.T. Business in the age of Depression and War. Routledge, 1990.

- "Davy Brothers." *Grace's Guide to British Industrial History.* n.d. https://www.gracesguide.co.uk/Davy_Brothers.
- Dawson, P., Buchanan, D. "The Way it Really Happened: Competing Narratives in the Political Process of Technological Change." *Human Relatins* v58(7), 2005: 845-865.
- De Soto, H. "The Mystery of Capital: Why Capitalism Triumphs in the West and Fails Everywhere Else". Black Swan, 2000.

Defries, A. The Interpreter Geddes, The Man and His Gospel. Routledge, 1928.

- Department for Communities & Local Government. *Locally-led Garden Cities*. April 2014. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/549617/L ocally-led_Garden_Cities_prospectus_archived.pdf .
- Department for Communities and Local Government. "Locally-led garden villages towns and cities." March 2016.

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/508205/L ocally-led_garden_villages__towns_and_cities.pdf.

Derby Daily Telegraph.25 June 1883.

Dix, G. In *Pioneers in British Planning*, by G.E., (ed) Cherry, 104. Architectural Press, 1981.

Edinburgh Evening News.25 October 1875.

Ekwall, E. The Concise Oxford Dictionary of English Place Names. Oxford, 1981.

- Erickson, C. British Industrialists Steel and Hosiery 1850-1950. Cambridge University Press, 1959.
- Ermakoff, I. "Causality and History: Modes of Causal Investigation in Historical Social Sciences." Annual Review of Sociology 45, 2019: 581-606.
- Essex, University of. *Histpop.* 2004-2007. http://histpop.org/ohpr/servlet/Show?page=Home.
- Fairburn, W.A., Bateman, M.D. "A new multi-stage recession model for Proglacial Lake Humber during the retreat of the last British & Irish icesheet." *Boreas, 45,* n.d.: 133-151.
- Fairclough, N. Analysing Discourse : Textual Analysis for Social Research. Abingdon: Routledge, 2003.
- Fisher, Nigel. "Memories of a golden age for Scunthorpe steel." *Grimasby Live.* 3 June 2018. https://www.grimsbytelegraph.co.uk/news/nostalgia/memories-golden-age-scunthorpesteel-1631912 (accessed 10 28, 2022).
- Flood, A. "3,6 or 36 how many basic plots are there in all stories ever written?" *The Guardian*, 13 July 2014.
- Foster, James. "The Redbourn Garden Village Trust." *Journal of the Society for Lincolnshire History and Archaeology*, 2013/4. Issue 94 Winter: 11-15.
- Foucault, M. The Order of Things, An Archaeology of the Human Sciences. Routledge, 1966.
- Fuller, Heather A. "Landownership and the Lindsey Landscape." Annals of the Association of American Geographers, Vol. 66, No. 1, March, 1976: pp 14-24.
- Garden City and Town Planning Association. *Garden Citiy and Town Planning*, Vol. IV No. 34, Aug 1909.
- Gavriely-Nuri, D. "Cultural Approach to CDA (CCDA) from theory to practice." In *The Routledge* Handbook of Critical Discourse Studies, 120-132. Routledge, 2017.

- "George Grant Sanderson." Grace's Guide to British Industrial History. n.d. https://www.gracesguide.co.uk/George_Grant_Sanderson.
- Gertner, David. "Unfolding and Configuring two decades of research on publications on place marketing and place branding." *Place Branding and Public Diplomacy Vol. 7, 2*, 2011: pp 91– 106.

Giddens, Anthony. The Constitution of Society. Cambridge: Polity, 1984.

Glasgow Herald. 30 September 1869.

Globe.8 September 1837.

- Godson, I.F., Scherto, R.G. "The Narrative Turn in Social Research." *Counterpoints Vol. 386*, 2011: 17-33.
- Goodman, N. Ways of Worldmaking. Hackett Publishing Co., 1978.
- Görmar, F., Kinossian, N. "Industrial Forever? Narratives, Place Identity, and the development path of the city of Zeitz, Germany." *Moravian Geographical Reports*, *30(4)*, 2022: 270-287.
- Grace's Guide. "George Tosh." *Grace's Guide to British Industrial History*. n.d. https://www.gracesguide.co.uk/George_Tosh.
- Grantham Journal of 20, October 1917. "Housing wanted for 30,000 people." 20 10 1917: 6.
- Groth, S. "Political Narratives / Narrations of the Political: An Introduction." *Narrative Culture , Vol. 6, No. 1, Political Narratives Spring*, 2019: 1-18.
- Gyford, J. Local Politics in Britain. Croom Helm, 1984.
- Halliday, M.A.K. Text and Discourse. Continuum, 2002.
- Hartley, O.A. Housing Policy in Four Lincolnshire Towns 1919-1959. PhD Thesis, Oxford, 1969.
- Hartley, Owen A. *"Housing policy in four Lincolnshire Towns 1919-1959", Doctoral thesis.* Oxford: Oxford University, 1969.
- Harvey, David. *Marx & Capital: The Concept, The Book, The History. Lecture 4, The Space & Time of Value.* Podcast. New York, 21 November 2016.
- -. Social Justice and the City (revised edition). University of Georgia Press, 2009.
- —. "Taking on 'Capital' without Marx." In These Times. 20 May 2014. https://inthesetimes.com/article/taking-on-capital-without-marx.
- Healey, P. "Relational complexity and the imaginative power of strategic spatial planning." *European Planning Studies 14 (4)*, 2006: 525-546.
- Hetherington, Graeme. "Anger as Michael Heseltine says it's a "good time" for more than 2,000 steelworkers to lose their jobs." *The Northern Echo.* 26 October 2015.

https://www.thenorthernecho.co.uk/news/13894945.anger-michael-heseltine-says-good-time-2-000-steelworkers-lose-jobs/ (accessed 2022).

- Hicks, J, & Allen, G. *Library of the House of Commons.* 21 December 1999. https://researchbriefings.files.parliament.uk/documents/RP99-111/RP99-111.pdf.
- Hindle, J. Life in Victorian Preston. Amberley Publishing, 2014.
- "HLG4/1956 Scunthorpe Urban District (authority number 1606). Planning scheme file 501. ." 1910-1923.
- "HLG4/1957 Scunthorpe Urban District (authority number 1606). Planning scheme file 501-A1. 3 plan..." National Archives, 1923-28.
- HMSO. The Official History of the Ministry of Munitions, Volume V: Wages & Welfare. Naval & Military Press, 2012 reprint.
- Howard, Ebenezer. Garden Cities of To-morrow. Swan Sonnenschein & Co. Ltd., 1902.
- -. To-Morrow: A peaceful path to real reform. Cambridge University Press, 1898 (2010).
- "Howard's Drawings." Welwyn Garden City Heritage Trust. 2022. http://www.welwyngardenheritage.org/photo-gallery/category/30-howard-drawings#&gid=1&pid=7.
- "Howard's Drawings." Welwyn Carden City Herritage Trust. 2022. https://www.welwyngardenheritage.org/photo-gallery/category/30-howard-drawings#&gid=1&pid=11.
- Hull Daily Mail.20 January 1893.
- *Hull Daily Mail*.11 10 1919.
- Hull Daily Mail.23 May 1887.
- Hull Daily Mail. "Ironstone Area Housing." 31 5 1919: 3.
- Hull Daily Mail. "What's in a Name." 1 11 1919: 2.
- Hull Packet.16 February 1883.
- Hull Packet and East Riding Times. 14 September 1866.
- Hull Packet and East Riding Times. 29 September 1876.
- "I Love Chicago Chicago Boulavard System ix." *Geocaching.* 13 11 2004. https://www.geocaching.com/geocache/GCM28A_i-love-chicago-chicago-boulevard-systemix?guid=4d3fd20a-2546-4468-bd56-709c8f319306&log=y&decrypt= (accessed 2022).
- Impey, Frederic. & Chamberlain, J. *Three Acres and a Cow, Successful smallholdings & peasant propriietors.* London: Swan Sonnenschein, Le Bas and Lowery, 1886.
- Jackson, Albert. Steelmaking for Steelmakers. United Steel Companies Ltd, 1960.

- Jackson, L. "victorian money." *The Dictionary of Victorian London*. n.d. https://www.victorianlondon.org/finance/money.htm.
- James, William. *Pragmatism: A New Name for Some Old Ways of Thinking*. New York & London: Longmans, Green & Co., 1907 (1975).
- John Innes Society. John Innes Society Merton Park. 2021. https://www.johninnessociety.org.uk/merton-park.
- Johnson, P. Making the Market: Victorian Origins of Corporate Capitalism. Cambridge University Press, 2010.
- Justice, J. "Bricks are worth their weight in gold." *The Guardian.* 18 December 1999. https://www.theguardian.com/money/1999/dec/18/mortgages.property1#:~:text=The%20 most%20striking%20feature%20of,smaller%20price%20gap%20than%20now.
- Knell, S.J. The Natural History of the Frodingham Ironstone. Scunthorpe Museum, 1988.
- Lacan, J,. *The Seminar of Jacques Lacan, Book III, The Psychoses, 1955-1956, translated with notes by R. Grigg,*. New York: W.W. Norton, 1993.

Lacan, Jacques. The Seminar. Book III. The Psychoses, 1955-56. Trans. Russell Grigg. Routledge, 1993.

Lancashire Evening Post . "Proposed New Town." 31 1 1919: 4.

László, J. The Science of Stories: An Introduction to Narrative Psychology. Routledge, 2008.

Leeds Mercury.2 August 1879.

- Leeds Mercury.22 February 1866.
- Lévi-Strauss, Claude,. "Introduction à l'oeuvre de Marcel Mauss". Paris: Presses Universitaries de France, 1950.

Lincolnshire Chronicle.15 February 1878.

Lincolnshire Chronicle.20 December 1881.

Lincolnshire Chronicle.20 March 1869.

Lincolnshire Echo. "Needs of the Ironstone District." 22 11 1917: 6.

Liverpool Mercury.1 February 1883.

Livesey, G. "Assemblage Theory, Gardens and the legacy of the early Garden City movement." Urbanism Vol 15 No 3, 2011: 271-278.

London Evening Standard.12 April 1887.

London Evening Standard.30 January 1883.

Longbone, B. Steam & Steel: An Illustrated History of Scunthorpe's Railways. Irwell Press, 1996.

- Loseke, D.R. *Narrative Productions of Meanings: Exploring the Work of Stories in Social Life.* Lexington Books, 2019.
- Lukes, S. Power a Radical View . Macmillan, 1974.
- Macintyre, A.C. After Virtue. University of Notre Dame Press, 1984.
- Major, Joanne. "Sally Smith: The "ghost" of Brumby Wood Hall." All Things Georgian. 2015. https://georgianera.wordpress.com/tag/earl-beauchamp/.
- Manchester Courier and Lancashire General Advertiser.6 January 1899.
- Manchester Courier and Lancashire General Advertiser.13 November 1874.
- Manchester Courier and Lancashire General Advertiser. 26 August 1846.
- Martin, R., Sunley, P. "Making history matter more in evolutionary economic geography." Advances in Economic Geography 66(2), 2022 : 65-80.
- Massey, D., and R. Meegan. "Spatial Divisions of Labour in Britain." In *Horizons in Human Geography*, by Derek. Gregory, 244-257. Macmillan Education, 2016.
- Massey, Doreen. "Space, Place & Gender". Cambridge: Polity Press, 1994.
- Massey, Doreen. "Places and their pasts." History Workshoop Journal, Vol39 (1)., 1995: 182-192.
- Massey, Doreen,, interview by Social Science Bites. *Doreen Massey on Space, Sage Publishing,* 8/5/2013, YouTube (8 5 2013).
- Mathew, W. M. "Marling in British Agriculture: a Case of Partial Identity." *Agricultural History Review Vol.41*, 1993: pp 97-110.
- McEachern, Doug. A Class Against Itself, Power and the Nationalisation of the British Steel Industry. Cambridge University Press, 1980.
- McLuhan, Marshall. Understanding Media. London: Routledge, 1964.
- Merton Council. "17 Cannon Hill, Cannon Hill Local Neighbourhood." *Merton*. n.d. https://www.merton.gov.uk/system/files?file=0266-17_cannon_hill.pdf.
- Miller, M. English Garden Cities: an introduction. English Heritage, 2010.
- Miller, Mervyn. English Garden Cities: An Introduction. English Heritage, 2010.
- Mitchell, B.R. British Historical Statistics. Cambridge University Press, 1988.
- Moore, Charles. Daniel H. Burnham, Architect, Planner of Cities." Volume 2. Chapter XXV "Closing in 1911-1912;. Boston: Houghton Mifflin, 1921.
- Mordhorst, Mads, and Stefan Schwarzkopf. "Theorising narrative in business history." *Business History*, *59:8*, 2017: 1155-1175.

- Mordhorst, Schwarzkopf. "Theorising Narrative in Business History." *Business History Vol.59 No. 8*, 2017: pp 1155-1175.
- Morning Post.2 August 1871.
- Morning Post.25 July 1900.
- Morris, W. News from Nowhere and other writings. Penguine Books Ltd., 2004 (1890).
- Nelson, R., Winter, S.G. *An Evolutionary Theory of Economic Change.* Cambridge, MA: The Belknap Press of Harvard University Press, 1982.
- Neville, R. "The Divorce of Man from Nature: The Evils of the Big Town." *Garden Cities and Town Planning*, August 1909: 227-228.
- Northern Echo.7 October 1881.
- Northern Echo. 10 January 1870.
- Northern Echo. "The Founders of the Town Middlesbrough Memoirs." 7 October 1881.
- Northern Evening Mail.31 December 1878.
- Nottinghamshire Guardian.27 May 1887.
- "Open Library." Internet Archive. 11 August 2022. https://archive.org/details/chicagogardencit00simo/page/8/mode/2up?ref=ol&view=theate r (accessed October 19, 2022).
- Osbourn, F.J. "Preface." In Garden Cities of To-Morrow, by Ebenezer Howard. Routledge, 1945.
- Owen, John S. Cleveland Ironstone Mining. Peter Tuffs, 2007.
- Perry's Bankrupt Gazette.8 October 1864.
- Pevsner, N. & Harris, J. *Lincolnshire: Buildings of England*. Penguin Books, 1964.
- Pfeifer, G. "The Question of Capitalist Desire: Deleuze & Guattari with Marx." CONTINENTAL THOUGHT & THEORY: A JOURNAL OF INTELLECTUAL FREEDOM Volume 1 | Issue 4, 2017: 254-269.
- Piketty, Thomas. *Capital in the twenty-first century*. Cambridge, Mass. & London: The Belknap Press, 2017.
- Pocock, D.C.D. "Land Ownership and Urban Growth in Scunthorpe." *The East Midlands Geographer Volume 5, Parts 1 & 2, Numbers 33 & 34, June-December*, 1970: 52-61.
- Pocock, D.C.D. "Stages in the development of the Frodingham Ironstone Field." *Institute of British Geographers, Transactions and Papers. Publication No 35*, 1964: 105-118.
- Pocock, D.C.D.,. "Specialised Industrial Towns as Service Centres: A Comparison of Scunthorpe & Corby." *Transactions of the Institute of British Geographers, No. 40*, 1966: 97-109.

Pope, Rex (Ed). Atlas of British Social & Economic History, since 1700. Routledge, 1990.

Popp, A., Fellman, S. "Writing business history: Creating narratives." *Business History , VOL. 59, NO. 8*, 2017: 1242–1260.

Public Ledger and Daily Advertiser. 20th January 1864.

- Rambler. "N. Lincolnshire Notebook." Hull Daily Mail, 1 November 1919.
- "Redbourn Hill Iron & Coal Company." *Grace's Guide to British Industrial History.* n.d. https://www.gracesguide.co.uk/Redbourn_Hill_Iron_and_Coal_Co.
- Ricardo, David. "On the Principles of Political Economy and Taxation." London: John Murray, 1817.
- Ricœur, Paul. "The Human Experience of Time and Narrative." *Research in Phenomenology*, 1979: Volume 9, pp 17-34.
- Ricœur, Paul. "The Model of the Text: Meaningful Action Considered as a Text." *New Literary History*, 1973: vol. 5, no. 1, pp. 91–117.
- Roepke, H.G. Movements of the British Steel Industry 1720-1951. 1956.
- Rowlinson, Hansard, Decker. "Research Stratergies for Organisational History." *The Academy of Management Review , Vol. 39, No. 3*, July 2014: pp. 250-274.
- Russell, E. & R. Landscape Changes in South Humberside. Humberside Leisure Services, 1982.
- Sadd, G. The Evolutionary Bases of Consumption . Lawrence Erlbaum Associates, 2007.
- Samuel, R. Theatres of Memory, Past and present in contemporary culture. Verso, 2012.
- Schumpeter, J.A. Capitalism, Socialism and Democracy. New York: Harper Perennial (2008), 1942.
- Scopes, Frederick. The Development of the Corby Works. Stewarts & Lloyds Limited, 1968.
- Scunthorpe Borough Council. *"Scunthorpe, Portrait of Progress", Civic Publicity Services Ltd. circa 1965.* Civic Publicity Services Ltd., 1965 (circa).
- -. Residents' Guide to the Industrial Garden Town. Scunthorpe Borough Council, 1964.
- Scunthorpe Evening Telegraph Jubilee special. "Scunthorpe? It's blooming lovely!" October 1986.
- "Scunthorpe Memories." Facebook. n.d.
 - https://www.facebook.com/groups/267968530026/?hoisted_section_header_type=recently _seen&multi_permalinks=10159618754270027.
- "Scunthorpe Steelworkers Past & Present." Facebook. n.d. https://www.facebook.com/groups/732956613483403.
- Scunthorpe Telegraph. "Steelmaking has provided jobs for thousands since first historic cast." 12 March 2020: 28.

"Scunthorpe Transport and Industries." *Facebook*. n.d. https://www.facebook.com/groups/972764229417425.

Sheffield Daily Telegraph.20 June 1864.

Sheffield Daily Telegraph.21 January 1875.

Sheffield Daily Telegraph.4 June 1881.

Sheffield Daily Telegraph.29 November 1879.

Sheffield Daily Telegraph.1 August 1873.

Sheffield Daily Telegraph.25 April 1874.

Sheffield Independent .28 January 1914.

Sheffield Independent.15 March 1884.

Sheffield Independent.9 October 1893.

Sheffield Independent.23 September 1867.

Sheffield Independent.15 September 1874.

Sheffield Independent.17 November 1874.

"Sheffield Independent." 19 6 1920: 5.

- Shiller, Robert J. *Narrative Economics, How Stories Go Viral & Drive Major Economic Events.* Princeton & Oxford: Princeton University Press, 2019.
- Skipworth, Mary. *Descendants of Philip Skipworth of South Kelsey, Lincolnshire*. 2016. http://genealogy.ianskipworth.com/pdf/skipssthkelsey.pdf.
- Smith, Thomas M. Enclosure and Agricultural Improvement in North West Lincolnshire from circa 1600 to 1850", Doctoral thesis. University of Nottingham, 2012.

Souto-Manning, M. "Critical Narrative Analysis: The interplay of critical discourse and narative analyses." *International Journal of Qualitative Studies in Education*, 2014: 159-180.

- Spring, D. "The English Landed Estate in the Age of Coal and Iron." *Journal of Economic History, Vol. 11 No. 1, winter*, 1951.
- Spring, D. "The English Landed Estate in the Age of Coal and Iron." *Journal of Economic History*, Vol. 11 No. 1, winter 1951: pp 3-24.
- Sraffa, P. *Production of Commodities by means of Commodities*. Cambridge: Cambridge University Press, 1960.
- "Steel Company of Scotland." Grace's Guide to British Industrial History. n.d. https://www.gracesguide.co.uk/Steel_Company_of_Scotland.

- Stern, Fishman & Tilove. *Paradise Planned: The Garden Suburb and the Modern City.* The Monacelli Press, 2013.
- Telegraph, Scunthorpe. Nostalgia, March 2015: p44.
- Thaler, R.H., Sunstein, C.R. Improving Decisions about Health, Wealth & Happiness. Penguin, 2009.
- The British Newspaper Archive. n.d. https://www.britishnewspaperarchive.co.uk/.
- The Daily Gazette for Middlesrough.18 April 1878: 3.
- The Daily Telegraph. "Obituaries John Sheffield." 1 July 2008.
- *The Lincolnshire Chronicle*.29 October 1886: p 8.
- The Northern Echo.7 October 1881.
- *The Preston Chronicle and Lancashire Adviser.* "Extracts from a letter from America." p November 1850.

The Star.29 10 1910.

- *The Star.* "A Scunthorpe Town Planning Scheme, How Scunthorpe could be made a Garden City." 5 11 1910.
- The Star. "Scunthorpe Councillors in London how they enjoyed themselves." 26 11 1910.
- "The Tudor Garden at Trerice." *Cornwall Gardens Trust.* 2018. http://www.cornwallgardenstrust.org.uk/the-tudor-garden-at-trerice/.
- The United Steel Companies Ltd. "South Ironworks (Third Edition)", The United Steel Companies Ltd. The United Steel Companies Ltd, 1965.
- Thomas, W., Znaniecki, F. *The Polish Peasant in Europe and America: A Classic Work in Immigration History.* Boston: The Gorham Press, 1918.
- Thompson, F.M.L. "The end of a Great Estate." *Economic History Review*, Vol.8, No. 1 (1955) pp 36-52,: pp 36-52,.
- Thompson, F.M.L. "The End of a Great Estate." *The Economic History Review, New Series, Vol. 8, No.* 1 (1955), pp. 36-52, 1955: pp 36-52.
- Throgmorton, James A. *Planning as Persuasive Storytelling: The Rhetorical Construction of Chicago's Electric Future.* Chicago: University of Chicago Press., 1996.
- Tolliday, S. *Business Banking and Politics: The case of British steel 1918-1939.* Harvard University Press, 1987.
- Torfing, Jacob,. "New Theories of Discourse: Laclau, Mouffe and Žižek" I. Oxford: Blackwel, 1999.

Torrens, Robert. The Budget on Commercial and Colonial Policy. London: Smith, Elder & Co., 1834.

Townsmen, New. New towns after the War, an argument for garden cities. London, 1918.

Tuan, Y.-F. *Space and Place: The Perspective of Experience.* Minneapolis: University of Minnesota Press, 1977.

Unwin, Raymond. Nothing gained by Overcrowding. Garden Cities & Town Planning Associatio, 1912.

—. *The Garden City: The Official Organ of the Garden City Association,* 1904: 111.

Vaughan, A. Samuel Morton Peto: a Victorian Entrepreneur". Ian Allen Publishing, 2009.

Volunteer Service Gazette and Military Dispatch.11 February 1882.

Walshaw, G.R. This Town of Ours, a Historical Fantasy. Bartle & Son Ltd., 1936.

- Walshaw, G.R., Behrendt, C.A.J. *The History of Appleby-Frodingham*. Appleby-Frodingham Steel Co. , 1950.
- Walter, M. *Making Plans Telling Stories: Planning in Karlskrona/Sweden. Doctoral thesis.* Blekinge Institute of Technology., 2013.
- Ward, Stephen V. *Peaceful Path: Building Garden Cities and New Towns.* University of Hertfordshire Press. , 2016.
- -. Selling Places, The Marketing and Promotion of Towns & Cities 1850-2000. E & FN Spon, 1998.
- Warner, P. A Cavalryman in the Crimea: The Letters of Temple Goodman, 5th Dragoon Guards. Pen and Sword, 2009.
- Wells, L. Frodingham Ironstone. "Letters, notes and observations concerning the discovery and exploitation. self-published, 2006.
- —. "People John Roseby." Industrial History of Scunthorpe. 2013. https://industrialhistoryofscunthorpe.wordpress.com/people/john-roseby-1859/.
- —. "People Roland Winn." Industrial History of Scunthorpe. 2013. https://industrialhistoryofscunthorpe.wordpress.com/people/roland-winn-1854/.
- —. "People John Hodgeson Lovel & William John Roseby." Industrial History of Scunthorpe. 2013. https://industrialhistoryofscunthorpe.wordpress.com/people/john-hodgson-lovel-andwilliam-john-roseby/.
- —. "Timeline." Industrial History of Scunthorpe. 2013. https://industrialhistoryofscunthorpe.wordpress.com/time-line/.
- Wengenroth, U. *Enterprise and Technology: The German and British steel industries 1865-1895.* Cambridge University Press, 1994.
- White, M.B.,. "Aspects of Migration in Victorian Lincolnshire", Doctoral Thesis . University of Edinburgh, 1985.
- Whiteman, A,. The Compton Census of 1676: A Critical Edition. Oxford University Press, 1986.

Wigan Observer and District Advertiser.6 September 1879.

- Williams, Raymond. ""The Country and the City"." YouTube. 1979. https://youtu.be/DV1krEyCgCM (accessed 2022).
- -. *Culture and Materialism*. London, New York: Verso, 1980, 2020.
- -. *The Country and the City.* London: Vintage Classics, 1973.
- Woods, L.M. British Gentlemen in the Wild West: The Era of the Intensely English Cowboy. Robson Books, 2003.
- Worcester Journal.28 May 1887.

Wright, John S. Chicago: Past, Present, Future. Western News Company, 1868.

York Herald.15 April 1891.

Yorkshire Evening Press.17 April 1891.

Yorkshire Forward. "Scunthorpe Strategic Development Framework." North Lincolnshire Council. 2005.

http://www.planning.northlincs.gov.uk/planningreports/Evidencebase/Localfulldocs/SDF_Full_Document.pdf.

- Yorkshire Post & Leeds Intelligencer.19 April 1878.
- Yorkshire Post and Leeds Intelligencer.31 May 1872.
- Yorkshire Post and Leeds Intelligencer.18 December 1884.
- Yorkshire Post and Leeds Intelligencer.31 May 1872.
- Yorkshire Post and Leeds Intelligencer.12 June 1900.
- Young, Arthur. *General View of the Agriculture of the County of Lincolnshire, Second edition*. David & Charles Reprints, 1813 (1970 reprint).

Additional Reading

Iron & Steel

Abromeit, H., "British Steel: an industry between the state and the private sector.", Berg, 1986

"Appleby-Frodingham Works, Scunthorpe Anchor Developments", British Steel Corporation, circa 1974

Ashton, T.S., "The Industrial Revolution 1760-1830", Oxford University Press, reprinted 1970

Bell, Isaac Lowthian, "Principles of the Manufacture of Iron & Steel with some Notes on the Economic Conditions of Their Production", Routledge 1884

Birch, Alan, "The Economic History of the British Iron & Steel Industry, 1784 – 1879", Frank Kass & Co. Ltd., 1967

Blair, A.M., "The British Iron & Steel Industry since 1945", The Journal of Economic History, Vol. 26, 1997, 3, pp. 571-581

Bosworth, C. (Ed), "British Iron & Steel, AD 1800-2000 & Beyond", IMO Communications Ltd. 2001

Car, J.C., Taplin, W., "A History of the British Steel Industry", Basil Blackwell, 1962

Gale, W.K.V., "The Iron & Steel Industry: A Dictionary of Terms", David & Charles Newton Abbot, 1971

Gale, W.K.V., "Ironworking", Shire Publications, 2002

"Griffiths' Guide to the Iron Trade of Great Britain", David & Charles Newton Abbot 1873

Heal, David W., "The Steel Industry in Post War Britain", David & Charles Newton Abbot, 1974

Henderson, S. & Royall, K. "Barrow Steelworks, an Illustrated History of the Haematite Steel Company", The History Press, 2015

Kendall, J.D., "The Iron Ores of Great Britain & Ireland" Crosby Lockwood & Son, 1893

Knell, S.J., "The Natural History of the Frodingham Ironstone", Scunthorpe Museum, 1988

"Memoirs of the Geological Survey of Great Britain and of the Museum of Practical Geology. The Iron Ores of Great Britain, Part 1, The Iron Ores of the North And North-Midland counties of England", Longman, Brown, Green & Longmans, 1856

McNicol, H., "Iron & Steel", Frederick Warne & Co. Ltd., undated, circa 1950

Menzies, Paul, "Middlesbrough Past & Present", The History Press, 2011

Peddie, R., "The United Steel Companies Limited 1918-1968, a History", C. Nicholls & Co. Ltd., 1969

Pounds, Norman J.G., "The Geography of Iron and Steel", Hutchinson University Library, fifth edition 1971.

Riden, P. & Owen, J.G., "British Blast Furnace Statistics 1790-1980", Merton Priory Press 1995

Sirs, B., "New Deal For Steel. How British Steel could cut prices, halt closures, make profits and grow. An alternative strategy from the main steel unions", I.S.T.C., 1980

"South Ironworks (Third Edition)", The United Steel Companies Ltd. 1965

"The Battle of Steel: a Record or the British Iron & Steel Industry at War", British Iron & Steel Federation, undated

"The Management of Water in the Iron & Steel Industry", The Iron & Steel Institute, 1970

Tonks, Eric, "The Ironstone Quarries of the Midlands, History, Operations & Railways. Part Six, The Corby Area", Book Law Publications 2009

Turan, W., "The Iron Manufacture of Great Britain: Theoretically and Practically Considered", E.& F.N. Spon, Third Edition 1865

Vaizey, John, "The History of British Steel", Weidenfield & Nicholson, 1974

Wardley, P. (1981) "Corporate strategy and entrepreneurial performance within a cartel: The Lincolnshire Ironmasters Association 1892-1913". In: *Economic and Social Research Council QEHSG*,, Colchester, UK, September, 1981

Wardley, P., "Corporate Strategy & Entrepreneurial Performance in a Cartel: The Lincolnshire Ironmasters' Association, 1895-1913, University of Essex, Department of Economics, 1981

Webb, Steven B., "Tariffs, Cartels, Technology, and Growth in the German Steel Industry, 1879-1914", Journal of Economic History 40: 332 June 1980

Wells, L., "Underground at Santon, A Brief History of the first Twenty Years of Winn's Underground Ironstone Mine, 1938-1959", Self Published 2005

Whitehead, T.H. Et al, "The Liassic Ironstones" H.M.S.O. 1952

Whitfield, J., "Scunthorpe at War, A Reporter Remembers", Lincolnshire Life, 1983

Wilson, Vernon, "The East Midlands Ironstone Fields", University of Nottingham, 1953

Yasumoto, Minoru, "the Rise of a Victorian Ironopolis, Middlesbrough and Regional Industrialisation", The Boydell Press 2011

Narrative & Language

Bal, Mieke, "Narratology: an introduction to the Theory of Narrative", University of Toronto Press, third edition 2009

Derrida, J., "Writing and Difference", Routledge, 1978

Derrida, Jaques, "Of Gramatology" Johns Hopkins, 1967

Cobley, Paul, "Narrative", Routledge 2001

Fairclough, N., "Critical Discourse Analysis, The Critical Study of Language, Second Edition", Longman, 2010

Ghasemi, A., Taghinejad, M., Kabiri, A., Imani, M., "Ricoeur's Theory of Interpretation: A Method for Understanding Text (Course Text)", World Applied Sciences Journal 15 (11): 1623-1629, 2011

Halliday, M.A.K., "Learning How to Mean, Explorations in the Development of Language", Eward Arnold, 1975

Halliday, M.A.K., "An Introduction to Functional Grammar, Third Edition", 2004

Halliday, M.A.K., "The Essential Halliday", Continuum, 2009

Levi-Strauss, C., "Myth & Meaning", Routledge, 1978

Mitchell, W.J.T. (Ed.) "On Narrative", University of Chicago Press, 1980

Mordhorst, Mads, & Schwarzkopf, Stefan, "Theorising Narrative in Business History", Business History Vol 59, no 8, 1155-1175, 2017

Proop, V., "Morphology of the Folktale", Mouton & Co. 1958

Rankin, Jenny, "What is Narrative? Ricoeur, Bakhtin and Process Approaches.", The Australian Journal of Process Thought, Concrescence 2002 Vol 3 pp 1-12

Thompson, G., "Introducing Functional Grammar, Second Edition", Hodder Education, 1996

White, Hayden, "The Question of Narrative in Contemporary Historical Theory", History and Theory, Vol. 23, No. 1, (Feb., 1984), pp.1-33

Garden City

Abercrombie, P., "Town Planning", Thornton Butterworth, 1933

Abercrombie, P., Lutyens, E., "A Plan for the City and County of Kingston upon Hull", A. Brown & Sons Ltd., 1945

Bloch, E., "The Utopian Function of Art & Literature", M.I.T. Press, 1988

Crookston, M., "Garden Suburbs of Tomorrow? A New Future for the Cottage Estates", Routledge, 2014

Deming, M.E., "Wish-Landscapes and Garden Cities: The Myth of the Garden in Allegories of English Reform 1880-1920", Doctor of Design thesis, Harvard University 2001

Fishman, R., "Urban Utopias in the Twentieth Century: Ebenezer Howard, Frank Lloyd Wright, Le Corbusier", M.I.T. Press, 1982

Jackson, Frank, "Sir Raymond Unwin: Architect, Planner and Visionary", A. Zwemmer Ltd., 1985

Rockey, John, "From Vision to Reality: Victorian Ideal Cities and Model Towns in the Genesis of Ebenezer Howard's Garden City", The Town Planning Review Vol. 54, No. 1 (Jan., 1983), pp. 83-105 Liverpool University Press

Schaffer, F., "The New Town Story", Paladin, 1972

Unwin, R., Baillie Scott, M.H., "Town Planning and Modern Architecture at Hampstead Garden Suburb", T. Fisher Unwin, 1909

Ward, Stephen V., "The Garden City, Past, Present & Future", E. & F.N. Spon, 1992

Local History

Ambler, R.W., (Ed), "Workers & Community: The People of Scunthorpe in the 1870's", Scunthorpe Museum Society, 1980

Bates & Bairstow, Railways in North Lincolnshire, 2005

Creed, R., Coult, A., "Steeltown: The Real Life Drama of the Men & Women who Built an Industry", Hutton Press, 1990

Cooke, R., "Men of Iron, Men of Steel: 100 Years of Steel Making in Scunthorpe, 1890-1990" selfpublished, 1990

Dudley, H.E., "The History and Antiquities of the Scunthorpe & Frodingham District", by subscription, 1931

Fisher, N., Horan, C., "Post-War Scunthorpe & District", Grimsby & Scunthorpe Newspapers Ltd., 2001

Foreman, J.J., "Railways and Steelmaking: The Scunthorpe Scene, 1956-1986", Appleby Frodingham Railway Preservation Society, circa 1986

Framp, C., "Crimson Skies", Richard Kay Publications, 1988

Henthorn F. "Letters and Papers concerning the establishment of the Trent, Ancholme and Grimsby Railway, 1860-1862", Lincoln Record Society, Volume 70, 1975

Hindle, J. "Life in Victorian Preston", Amberley Publishing, 2014.

Jackson, H., "Scunthorpe, A Pictorial History", Spiegl Press, 1981

"Labour in Scunthorpe & District, 1 – The Parliamentary Experience 1929-1979, WEA/Labour History Group, 1980 (?)

Lucy, H.W., "A Diary of the Salisbury Parliament, 1886-1892", Caswell & Co., 1892 (The government Roland Winn served in)

Lyons, Nick, "The Labourer in his Place, Some Observations on the Rebuilding of Appleby", from "Land, People and Landscape, Essays on the History of the Lincolnshire Region", Lincolnshire Council, 1991 pp. 193-210

"Lysaght 1857-1957, The Lysaght Century", Company Publication 1957

Mulvagh, Jane, "Madresfield: The Real Brideshead", Black Swan 2008, (concerning the Beauchamp family)

"Nostell Priory and Parkland", Visitor Guide, National Trust, 2001

Russell, Rex C., "Revolution in North Thoresby, Lincolnshire.", 1976, N. Thoresby W.E.A

Squires, S., "The Greetwell Ironstone Mines", Proceedings of the Lincolnshire History and Archaeological Society, Vol. 45, 2010

Taylor, David J., "I Remember Normanby, Life on a Lincolnshire Estate Between the Wars", Hutton Press, 1994

"That Queer Little Shop: A History of the Scunthorpe Co-operative Movement", WEA/Labour History Group, 2000

"The Heavens Reflect Our Labours", Scunthorpe Museum & Art Gallery, 1974

"The Natural History of the Frodingham Ironstone", Scunthorpe Museum & Art Gallery, 1988

"Village Days", Scunthorpe Museum & Art Gallery, 1973

Wade, S., "Tales from the Big House: Normanby Hall", Pen & Sword History, 2017

Whiteman, A, ed. "The Compton Census of 1676: A Critical Edition". Oxford University Press, 1986

Economic & Business History and reference

Christophers, Brett, "Revisiting the Urbanisation of Capital", Annals of the Association of American Geographers, 101:6 pp. 1347-1364

George, H., "Progress and Poverty, An inquiry into the cause of industrial depressions and the increase of want with increase of wealth...The Remedy", Robert Schalkenbach Foundation 2008 first published 1879

Hayek, F.A., (ed.), "Capitalism and the Historians" Phoenix Books, University of Chicago Press, 1963

Hatcher, J., Bailey, M., "Modelling the Middle Ages: The History and Theory of England's Economic Development" Oxford University Press, 2009

Jones, E., "The History of GKN: Volume 2: The Growth of a Business, 1918–45" Springer 1990

Malchow, H.L., "Gentlemen Capitalists: The Social & Political World of the Victorian Businessman", Stanford University Press, 1992

Malm, A., "Fossil Capital: The Rise of Steam Power and the Roots of Global Warming", Verso 2016

Morehart, C.T. & De Lucia, K. "Surplus: the Politics of Production and the Strategies of Everyday Life." 2015, University Press of Colorado.

Popp, A. Fellman, S., "Writing Business History: Creating Narratives", Business History, 2017, Vol. 59, No. 8, pp. 1242-1260

Smith, Adam, "An Inquiry into the Nature and Causes of the Wealth of Nations." 1776.

Tribe, K., "Land, Labour & Economic Discourse", Routledge & Kegan Paul, 1978

Webber, M.J., "Impact of Uncertainty on Location", The M.I.T. Press, 1972

Lincolnshire and other History

Bennett, S., Bennett, N., (Eds.) "An Historical Atlas of Lincolnshire", University of Hull Press, 1993

Hindle, David. J, "Life in Victorian Preston", Amberley, 2014, (For details of the Cross family)

O'Neill, S., Folklaw of Lincolnshire", The History Press, 2012

Olney, R.J., "Lincolnshire Politics, 1832-1885", Oxford University Press, 1973

Stenton, D.M., ed. "Preparatory to Anglo-Saxon England", Oxford University Press, 1970

Triplow, N., Bramhill, T., James, S., "Distant Water, Stories from Grimsby's Fishing Fleet", North Wall Publishing, 2011

Wickstead, A. "Lincolnshire, Lindsey: The Story of a County Council, 1889-1974", Lincolnshire & Humberside Arts, 1978

Structure and its making

Follett, M.P., "The New State, Group Organisation the Solution of Popular Government", Longman Green & Co., 1918

Flyvbjerg, B., "Rationality and Power, Democracy in Practice", University of Chicago Press, 1998

Harvey, D., "Explanation in Geography", Edward Arnold, 1969

Hempton, D., "Methodism & Politics in British Society 1750-1850", Stanford University Press, 1984

Kropotkin, Peter, "Mutual Aid: a factor in evolution", 1902

Latour, B., Woolgar, S., "Laboratory Life, The Construction of Scientific Facts", Princeton University Press, 1986

Low, N., "Planning, Politics and the State, Political Foundations of Planning Thought", Unwin Hyman, 1991

Pounds, N.J.G., "A History of the English Parish, The Cilture of Religion from Augustine to Victoria", Cambridge University Press, 2000

Torfing, J., "Politics, Regulation and the Modern Welfare State", Palgrave, 1998